

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 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, 2017

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 1-11356

**RADIAN**

**RADIAN GROUP INC.**

(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of incorporation or organization)  
1500 Market Street, Philadelphia, PA  
(Address of principal executive offices)

23-2691170  
(I.R.S. Employer Identification No.)  
19102  
(Zip Code)

(215) 231-1000

(Registrant's telephone number, including area code)

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

<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
Common Stock, \$.001 par value per share	New York Stock Exchange
Preferred Stock Purchase Rights	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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post 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 definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check One):

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

(Do not check if a smaller reporting 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, 2017, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was \$3,510,436,004 based on the closing sale price as reported on the New York Stock Exchange. Excluded from this amount is the value of all shares beneficially owned by executive officers and directors of the registrant. These exclusions should not be deemed to constitute a representation or acknowledgment that any such individual is, in fact, an affiliate of the registrant or that there are not other persons or entities who may be deemed to be affiliates of the registrant.

The number of shares of common stock, \$.001 par value per share, of the registrant outstanding on February 23, 2018 was 216,032,041 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Definitive Proxy Statement for the Registrant's 2018 Annual Meeting of Stockholders

Form 10-K  
Reference Document  
Part III  
(Items 10 through 14)

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## GLOSSARY OF ABBREVIATIONS AND ACRONYMS

The list which follows includes the definitions of various abbreviations and acronyms used throughout this report, including the Business Section, Management’s Discussion and Analysis of Financial Condition and Results of Operations, Consolidated Financial Statements, the Notes to Consolidated Financial Statements and the Financial Statement Schedules.

<b>Term</b>	<b>Definition</b>
1995 Equity Plan	The Radian Group Inc. 1995 Equity Compensation Plan
2008 Equity Plan	The Radian Group Inc. 2008 Equity Compensation Plan
2008 ESPP	The Radian Group Inc. 2008 Employee Stock Purchase Plan
2014 Equity Plan	The Radian Group Inc. 2014 Equity Compensation Plan, which was amended and restated as the Radian Group Inc. Equity Compensation Plan on May 10, 2017
2014 Master Policy	Radian Guaranty’s master insurance policy, setting forth the terms and conditions of our mortgage insurance coverage, which became effective October 1, 2014
2016 Single Premium QSR Transaction	Quota share reinsurance agreement entered into with a panel of third-party reinsurance providers in the first quarter of 2016 and subsequently amended in the fourth quarter of 2017
2018 Single Premium QSR Transaction	Quota share reinsurance agreement entered into with a panel of third-party reinsurance providers in October 2017 to cede a portion of Single Premium NIW beginning January 1, 2018
ABS	Asset-backed securities
Alt-A	Alternative-A loans, representing loans for which the underwriting documentation is generally limited as compared to fully documented loans (considered a non-prime loan grade)
Amended and Restated Equity Compensation Plan	The Radian Group Inc. Equity Compensation Plan, which amended and restated the 2014 Equity Plan and was approved by our stockholders on May 10, 2017
Assured	Assured Guaranty Corp., a subsidiary of Assured Guaranty Ltd.
Available Assets	As defined in the PMIERS, assets primarily including the liquid assets of a mortgage insurer, and reduced by premiums received but not yet earned
Back-end	With respect to credit risk transfer programs established by the GSEs, policies written on loans that are already part of an existing GSE portfolio, as contrasted with loans that are to be purchased by the GSEs in the future
BofA Settlement Agreement	The Confidential Settlement Agreement and Release dated September 16, 2014, by and among Radian Guaranty and Countrywide Home Loans, Inc. and Bank of America, N.A., as a successor to BofA Home Loan Servicing f/k/a Countrywide Home Loan Servicing LP, entered into in order to resolve various actual and potential claims or disputes as to mortgage insurance coverage on the specific population of loans covered by the agreement
Borrower	With respect to our securities lending agreements, the third-party institutions to which we loan certain securities in our investment portfolio for short periods of time
CFPB	Consumer Financial Protection Bureau
Claim Curtailment	Our legal right, under certain conditions, to reduce the amount of a claim, including due to servicer negligence
Claim Denial	Our legal right, under certain conditions, to deny a claim
Claim Severity	The total claim amount paid divided by the original coverage amount
Clayton	Clayton Holdings LLC, a Delaware domiciled indirect non-insurance subsidiary of Radian Group
CMBS	Commercial mortgage-backed securities
Convertible Senior Notes due 2017	Our 3.000% convertible unsecured senior notes due November 2017 (\$450 million original principal amount)
Convertible Senior Notes due 2019	Our 2.250% convertible unsecured senior notes due March 2019 (\$400 million original principal amount)
Cures	Loans that were in default as of the beginning of a period and are no longer in default because payments were received such that the loan is no longer 60 or more days past due

<b>Term</b>	<b>Definition</b>
Default to Claim Rate	The percentage of defaulted loans that are assumed to result in a claim
Deficiency Amount	The assessed tax liabilities, penalties and interest associated with a formal Notice of Deficiency from the IRS
Discrete Item(s)	For tax calculation purposes, certain events that are accounted for in the provision for income taxes as they occur, and are not considered a component of the estimated annualized effective tax rate for purposes of reporting interim results. These items impact the difference between the statutory rate and Radian's effective tax rate.
Dodd-Frank Act	Dodd-Frank Wall Street Reform and Consumer Protection Act, as amended
Equity Plans	The 1995 Equity Plan, the 2008 Equity Plan and the Amended and Restated Equity Compensation Plan, together
Exchange Act	Securities Exchange Act of 1934, as amended
Extraordinary Dividend	A dividend distribution required to be approved by an insurance company's primary regulator that is greater than would be permitted as an ordinary dividend, which does not require regulatory approval
Fannie Mae	Federal National Mortgage Association
FASB	Financial Accounting Standards Board
FEMA	Federal Emergency Management Agency, an agency of the U.S. Department of Homeland Security
FEMA Designated Area	Generally, an area that has been subject to a disaster, designated by FEMA as an individual assistance disaster area for the purpose of determining eligibility for various forms of federal assistance
FHA	Federal Housing Administration
FHFA	Federal Housing Finance Agency
FHLB	Federal Home Loan Bank of Pittsburgh
FICO	Fair Isaac Corporation ("FICO") credit scores used throughout this report, for Radian's portfolio statistics, represent the borrower's credit score at origination and, in circumstances where there is more than one borrower, the FICO score for the primary borrower is utilized
Flow Basis	With respect to mortgage insurance, includes mortgage insurance policies that are written on an individual loan basis as each loan is originated or on an aggregated basis (in which each individual loan in a group of loans is insured in a single transaction, typically shortly after the loans have been originated). Among other items, Flow Basis business excludes Pool Insurance, which we originated prior to 2009.
Foreclosure Stage Default	The Stage of Default indicating that the foreclosure sale has been scheduled or held
Freddie Mac	Federal Home Loan Mortgage Corporation
Freddie Mac Agreement	The Master Transaction Agreement between Radian Guaranty and Freddie Mac entered into in August 2013
Front-end	With respect to credit risk transfer programs established by the GSEs, policies written on loans that are to be purchased by the GSEs in the future, as contrasted with loans that are already part of an existing GSE portfolio
GAAP	Accounting principles generally accepted in the U.S.
Green River Capital	Green River Capital LLC, a wholly-owned subsidiary of Clayton
GSEs	Government-Sponsored Enterprises (Fannie Mae and Freddie Mac)
HAMP	Homeowner Affordable Modification Program
HARP	Home Affordable Refinance Program
HARP 2	The FHFA's extension of and enhancements to HARP
IBNR	Losses incurred but not reported
IIF	Insurance in force, equal to the aggregate unpaid principal balances of the underlying loans
IRC	Internal Revenue Code of 1986, as amended
IRS	Internal Revenue Service

<b>Term</b>	<b>Definition</b>
IRS Matter	Our dispute with the IRS related to the Deficiency Amount from the IRS's examination of our 2000 through 2007 consolidated federal income tax returns. See Note 10 of Notes to Consolidated Financial Statements for more information.
JCT	Congressional Joint Committee on Taxation
LAE	Loss adjustment expenses, which include the cost of investigating and adjusting losses and paying claims
Legacy Portfolio	Mortgage insurance written during the poor underwriting years of 2005 through 2008, together with business written prior to 2005
Loss Mitigation Activity/Activities	Activities such as Rescissions, Claim Denials, Claim Curtailments and cancellations
LTV	Loan-to-value ratio, calculated as the percentage of the original loan amount to the original value of the property
Master Policies	The Prior Master Policy and the 2014 Master Policy, collectively
Minimum Required Assets	A risk-based minimum required asset amount, as defined in the PMIERS, calculated based on net RIF (RIF, net of credits permitted for reinsurance) and a variety of measures related to expected credit performance and other factors
Model Act	Mortgage Guaranty Insurers Model Act, as issued by the NAIC to establish minimum capital and surplus requirements for mortgage insurers
Monthly and Other Premiums	Insurance policies where premiums are paid on a monthly or other installment basis, in contrast to Single Premium Policies
Monthly Premium Policies	Insurance policies where premiums are paid on a monthly installment basis
Moody's	Moody's Investors Service
Mortgage Insurance	Radian's Mortgage Insurance business segment, which provides credit-related insurance coverage, principally through private mortgage insurance, as well as other credit risk management solutions to mortgage lending institutions nationwide
MPP Requirement	Certain states' statutory or regulatory risk-based capital requirement that the mortgage insurer must maintain a minimum policyholder position, which is calculated based on both risk and surplus levels
NAIC	National Association of Insurance Commissioners
NIW	New insurance written
NOL	Net operating loss; for tax purposes, accumulated during years a company reported more tax deductions than taxable income. NOLs may be carried back or carried forward a certain number of years, depending on each jurisdiction, thus reducing a company's tax liability
Notices of Deficiency	Formal letters from the IRS informing the taxpayer of an IRS determination of tax deficiency and appeal rights
OCI	Other comprehensive income (loss)
PDR	Premium deficiency reserve
Persistency Rate	The percentage of insurance in force that remains in force over a period of time
PMIERS	Private Mortgage Insurer Eligibility Requirements effective on December 31, 2015, issued by the GSEs under oversight of the FHFA to set forth requirements an approved insurer must meet and maintain to provide mortgage guaranty insurance on loans acquired by the GSEs
Pool Insurance	Pool Insurance differs from primary insurance in that our maximum liability is not limited to a specific coverage percentage on an individual mortgage loan. Instead, an aggregate exposure limit, or "stop loss," is applied to the initial aggregate loan balance on a group or "pool" of mortgages.
Post-legacy	The time period subsequent to 2008
Post-legacy Portfolio	Mortgage insurance on loans written subsequent to 2008
Prior Master Policy	Radian Guaranty's master insurance policy, setting forth the terms and conditions of our mortgage insurance coverage, which was in effect prior to the effective date of its 2014 Master Policy
QSR	Quota share reinsurance
QSR Transactions	The quota share reinsurance agreements entered into with a third-party reinsurance provider in the second and fourth quarters of 2012, collectively

<b>Term</b>	<b>Definition</b>
Radian	Radian Group Inc. together with its consolidated subsidiaries
Radian Asset Assurance	Radian Asset Assurance Inc., a New York domiciled insurance company that was formerly a subsidiary of Radian Guaranty
Radian Asset Assurance Stock Purchase Agreement	The Stock Purchase Agreement dated December 22, 2014, between Radian Guaranty and Assured to sell Radian Asset Assurance to Assured
Radian Group	Radian Group Inc.
Radian Guaranty	Radian Guaranty Inc., a Pennsylvania domiciled insurance subsidiary of Radian Group
Radian Guaranty Reinsurance	Radian Guaranty Reinsurance Inc., a Pennsylvania domiciled insurance subsidiary of Enhance Financial Services Group Inc., a New York domiciled non-insurance subsidiary of Radian Group
Radian Insurance	Radian Insurance Inc., a Pennsylvania domiciled insurance subsidiary of Radian Group
Radian Mortgage Assurance	Radian Mortgage Assurance Inc., a Pennsylvania domiciled insurance subsidiary of Radian Group
Radian Mortgage Insurance	Radian Mortgage Insurance Inc., a Pennsylvania domiciled subsidiary of Radian Group
Radian Reinsurance	Radian Reinsurance Inc., a Pennsylvania domiciled insurance subsidiary of Radian Group
RBC States	Risk-based capital states, which are those states that currently impose a statutory or regulatory risk-based capital requirement
Red Bell	Red Bell Real Estate, LLC, a wholly-owned subsidiary of Clayton
Reinstatements	Reversals of previous Rescissions, Claim Denials and Claim Curtailments
REMIC	Real Estate Mortgage Investment Conduit
REO	Real estate owned
Rescission	Our legal right, under certain conditions, to unilaterally rescind coverage on our mortgage insurance policies if we determine that a loan did not qualify for insurance
RESPA	Real Estate Settlement Procedures Act of 1974, as amended
RIF	Risk in force; for primary insurance, RIF is equal to the underlying loan unpaid principal balance multiplied by the insurance coverage percentage, whereas for Pool Insurance it represents the remaining exposure under the agreements
Risk-to-capital	Under certain state regulations, a minimum ratio of statutory capital calculated relative to the level of net RIF
RMBS	Residential mortgage-backed securities
RSU	Restricted stock unit
S&P	Standard & Poor's Financial Services LLC
SAB 118	Staff Accounting Bulletin No. 118, "Income Tax Accounting Implications of the Tax Cuts and Jobs Act," issued by the SEC staff in December 2017
SAFE Act	Secure and Fair Enforcement for Mortgage Licensing Act, as amended
SAPP	Statutory accounting principles and practices include those required or permitted, if applicable, by the insurance departments of the respective states of domicile of our insurance subsidiaries
SARs	Stock appreciation rights
SEC	United States Securities and Exchange Commission
Senior Notes due 2017	Our 9.000% unsecured senior notes due June 2017 (\$195.5 million original principal amount, of which the remaining outstanding principal was redeemed in August 2016)
Senior Notes due 2019	Our 5.500% unsecured senior notes due June 2019 (\$300 million original principal amount)
Senior Notes due 2020	Our 5.250% unsecured senior notes due June 2020 (\$350 million original principal amount)
Senior Notes due 2021	Our 7.000% unsecured senior notes due March 2021 (\$350 million original principal amount)

<b>Term</b>	<b>Definition</b>
Senior Notes due 2024	Our 4.500% unsecured senior notes due October 2024 (\$450 million original principal amount)
Services	Radian’s Services business segment, which is a fee-for-service business that offers a broad array of both mortgage and real estate services to market participants across the mortgage and real estate value chain
Single Premium NIW (or IIF)	New insurance written or insurance in force, respectively, on Single Premium Policies
Single Premium Policy/Policies	Insurance policies where premiums are paid in a single payment and includes policies written on an individual basis (as each loan is originated) and on an aggregated basis (in which each individual loan in a group of loans is insured in a single transaction, typically shortly after the loans have been originated)
Stage of Default	The stage a loan is in relative to the foreclosure process, based on whether a foreclosure sale has been scheduled or held
Statutory RBC Requirement	Risk-based capital requirement imposed by the RBC States, requiring a minimum surplus level and, in certain states, a minimum ratio of statutory capital relative to the level of risk
Surplus Note	An intercompany 0.000% surplus note issued by Radian Guaranty to Radian Group
TCJA	H.R. 1, known as the Tax Cuts and Jobs Act, signed into law on December 22, 2017
Time in Default	The time period from the point a loan reaches default status (based on the month the default occurred) to the current reporting date
TRID	Truth in Lending Act - Real Estate Settlement Procedures Act of 1974 (“RESPA”) Integrated Disclosure
U.S.	The United States of America
U.S. Treasury	United States Department of the Treasury
VA	U.S. Department of Veterans Affairs
ValuAmerica	ValuAmerica, Inc., a wholly-owned subsidiary of Clayton



### Cautionary Note Regarding Forward-Looking Statements—Safe Harbor Provisions

All statements in this report that address events, developments or results that we expect or anticipate may occur in the future are “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, Section 21E of the Exchange Act and the U.S. Private Securities Litigation Reform Act of 1995. In most cases, forward-looking statements may be identified by words such as “anticipate,” “may,” “will,” “could,” “should,” “would,” “expect,” “intend,” “plan,” “goal,” “contemplate,” “believe,” “estimate,” “predict,” “project,” “potential,” “continue,” “seek,” “strategy,” “future,” “likely” or the negative or other variations on these words and other similar expressions. These statements, which may include, without limitation, projections regarding our future performance and financial condition, are made on the basis of management’s current views and assumptions with respect to future events. Any forward-looking statement is not a guarantee of future performance and actual results could differ materially from those contained in the forward-looking statement. These statements speak only as of the date they were made, and we undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. We operate in a changing environment where new risks emerge from time to time and it is not possible for us to predict all risks that may affect us. The forward-looking statements, as well as our prospects as a whole, are subject to risks and uncertainties that could cause actual results to differ materially from those set forth in the forward-looking statements. These risks and uncertainties include, without limitation:

- changes in economic and political conditions that impact the credit performance of our insured portfolio and our business prospects;
- changes in the way customers, investors, ratings agencies, regulators or legislators perceive our performance, financial strength and future prospects;
- Radian Guaranty’s ability to remain eligible under the PMIERS and other applicable requirements imposed by the FHFA and by the GSEs to insure loans purchased by the GSEs;
- our ability to successfully execute and implement our capital plans and to maintain sufficient holding company liquidity to meet our short- and long-term liquidity needs;
- our ability to successfully execute and implement our business plans and strategies, including plans and strategies to reposition our Services segment as well as plans and strategies that require GSE and/or regulatory approvals and licenses;
- our ability to maintain an adequate level of capital in our insurance subsidiaries to satisfy existing and future state regulatory requirements;
- changes in the charters or business practices of, or rules or regulations imposed by or applicable to, the GSEs, including the GSEs’ interpretation and application of the PMIERS and the recently proposed changes to the PMIERS;
- changes in the current housing finance system in the U.S., including the role of the FHA, the GSEs and private mortgage insurers in this system;
- any disruption in the servicing of mortgages covered by our insurance policies, as well as poor servicer performance;
- a significant decrease in the Persistency Rates of our mortgage insurance on monthly premium products;
- competition in our mortgage insurance business, including price competition and competition from the FHA and VA, as well as from other forms of credit enhancement;
- the effect of the Dodd-Frank Act (or its potential amendment or repeal) on the financial services industry in general, and on our businesses in particular;
- legislative and regulatory activity (or inactivity), including the adoption of (or failure to adopt) new laws and regulations, or changes in existing laws and regulations, or the way they are interpreted or applied, including interpretations and guidance pertaining to the recently enacted TCJA;
- legal and regulatory claims, assertions, actions, reviews, audits, inquiries and investigations that could result in adverse judgments, settlements, fines, injunctions, restitutions or other relief that could require significant expenditures or have other effects on our business;
- the amount and timing of potential payments or adjustments associated with federal or other tax examinations, including deficiencies assessed by the IRS resulting from its examination of our 2000 through 2007 tax years, which we are currently contesting;



- the possibility that we may fail to estimate accurately the likelihood, magnitude and timing of losses in connection with establishing loss reserves for our mortgage insurance business or in establishing the assumptions that have formed the basis for our expectations regarding our ability to comply with the proposed PMIERS when implemented;
- volatility in our results of operations caused by changes in the fair value of our assets and liabilities, including a significant portion of our investment portfolio, and potential volatility in our Available Assets under the PMIERS as a result of a potential new requirement in the proposed changes to the PMIERS to mark certain of our Available Assets to fair value;
- potential future impairment charges related to our intangible assets, and uncertainties regarding our ability to execute our restructuring plans within expected costs;
- changes in GAAP or SAPP rules and guidance, or their interpretation;
- our ability to attract and retain key employees; and
- legal and other limitations on dividends and other amounts we may receive from our subsidiaries.

For more information regarding these risks and uncertainties as well as certain additional risks that we face, you should refer to the Risk Factors detailed in Item 1A of this Annual Report on Form 10-K. We caution you not to place undue reliance on these forward-looking statements, which are current only as of the date on which we issued this report. We do not intend to, and we disclaim any duty or obligation to, update or revise any forward-looking statements to reflect new information or future events or for any other reason.

## **PART I**

### **Item 1. Business.**

#### **General**

We are a diversified mortgage and real estate services business. We provide mortgage insurance and products and services to the real estate and mortgage finance industries through our two business segments—Mortgage Insurance and Services. Our Mortgage Insurance segment provides credit-related insurance coverage, principally through private mortgage insurance, as well as other credit risk management solutions to mortgage lending institutions nationwide. We provide our mortgage insurance products mainly through our wholly-owned subsidiary, Radian Guaranty. Our Services segment is a fee-for-service business that offers a broad array of services to market participants across the mortgage and real estate value chain. These services are comprised of mortgage services and real estate services that provide mortgage lenders, financial institutions, mortgage and real estate investors and government entities, among others, with information and other resources and services that are used to originate, evaluate, acquire, securitize, service and monitor residential real estate and loans secured by residential real estate. Our mortgage services include transaction management services such as loan review, RMBS securitization and distressed asset reviews, servicer and loan surveillance and underwriting. Our real estate services include: REO asset management; review and valuation services related to single family rental properties; real estate valuation services; real estate brokerage services; and title and settlement services that include title search, settlement and closing services. We provide our Services products and services primarily through Clayton and its subsidiaries, including Green River Capital, Red Bell and ValuAmerica.

See Note 4 of Notes to Consolidated Financial Statements for a summary of financial information for our business segments and see “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” for additional information about the performance of our business segments, including revenue by business segment.

Radian Group serves as the holding company for our insurance and other subsidiaries and does not have any operations of its own.

*2017 Highlights.* Below are highlights of our key accomplishments that furthered our strategic objectives and contributed to our financial and operating results during 2017.

#### KEY ACCOMPLISHMENTS FOR 2017

- Wrote \$53.9 billion of NIW on a Flow Basis, the highest flow volume in Radian’s 40-year history
  - » Represents a 7% increase over 2016
  - » Grew primary IIF, our main driver of future earnings, by 9%, from \$183.5 billion at December 31, 2016 to \$200.7 billion at December 31, 2017
- Earned pretax income of \$346.7 million in 2017 (including the recognition of non-cash expense of \$200.2 million for impairment of goodwill and other intangible assets related to the Services segment), compared to \$483.7 million in 2016
- Adjusted pretax operating income was \$617.2 million, an increase of 14% compared to \$541.8 million for 2016 (1)
- Improved composition of mortgage insurance portfolio
  - » 92% of our primary RIF consists of business written after 2008, including HARP loans
- Completed a series of capital management transactions to strengthen our capital and liquidity position
  - » See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—*Radian Group—Short-Term Liquidity Needs*”
- Entered into reinsurance arrangements to manage Radian Guaranty’s capital position in a cost-effective manner, improve its return on capital and strengthen its financial position under the PMIERS
  - » See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Overview—*Other 2017 Developments—Reinsurance*”
- Increased excess of Available Assets over Minimum Required Assets under PMIERS to \$450 million, or 14% of Minimum Required Assets
- Committed to a restructuring plan to reposition the Services business to achieve sustained profitability
- Realigned sales organization into a highly-focused enterprise sales team

(1) Adjusted pretax operating income is a non-GAAP measure. See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Consolidated—*Use of Non-GAAP Financial Measure*” for the definition and reconciliation of this measure to the most comparable GAAP measure, pretax income.

For additional information regarding these items as well as other factors impacting our business and financial results in 2017, see “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

*Business Strategy.* Radian’s objectives include growing earnings per share while maintaining attractive returns on equity. We are committed to delivering a range of products and services that enable individuals to responsibly and sustainably achieve the American dream of homeownership and institutional market participants to transact at lower costs, with improved quality and enhanced transparency, resulting in a better overall mortgage and real estate marketplace.

Consistent with these objectives, our business strategy as highlighted below is focused on growing our businesses, diversifying our revenue sources and increasing our fee-based revenues, while at the same time enhancing our operations and developing a one-company market view by integrating our product and services offerings more effectively.

### RADIAN'S LONG-TERM STRATEGIC OBJECTIVES

- Write high-quality and profitable NIW to drive future earnings, in a manner that enhances the long-term economic value of the portfolio
- Leverage our competitive differentiation through:
  - » Our diverse products and business model
  - » Operational excellence, including customer service, process quality and operational efficiency
  - » Broadening our existing relationships as a valued business partner
  - » Driving a one-company market view through our enterprise sales and marketing platform
- Manage our capital and financial flexibility to optimize shareholder value
- Increase operating leverage through accretive revenue growth and effective expense management (1)

(1) Operating leverage is a performance metric defined as the year-over-year percentage change in revenues minus the percentage change in expenses.

We utilize various tools to assess the long-term economic value of our portfolio in order to identify opportunities to optimize shareholder value. For our Mortgage Insurance business, we evaluate the long-term economic value of existing or future business by using an Economic Value Added (“EVA”) measure, which incorporates expected lifetime returns for our insurance policies, including projected premiums, credit losses, investment income, operating expenses and taxes. These lifetime cash flows are then offset by the estimated cost of required capital, derived from our average cost of capital, to arrive at an estimated EVA to assist us in evaluating various portfolio strategies.

A key element of our business strategy is to use our Services segment to diversify our business and revenue streams by increasing our participation in multiple facets of the residential real estate and mortgage finance markets. In 2017, we undertook a strategic review of our Services business and made several decisions with respect to the business strategy that are designed to reposition this business to drive future growth and profitability. Following this strategic review, we committed to a restructuring plan and are focusing our efforts on offering those products and services that are expected to produce more predictable and recurring fee-based revenues over time. This strategy is designed to satisfy demand in the market, grow our fee-based revenues, strengthen our existing mortgage insurance customer relationships, attract new customers and differentiate us from our mortgage insurance peers.

Through the combination of our Mortgage Insurance and Services business segments, our broad array of capabilities within the primary stages of the mortgage value chain are illustrated below.



*Corporate Background.* Radian Group has been incorporated as a business corporation under the laws of the State of Delaware since 1991. Our principal executive offices are located at 1500 Market Street, Philadelphia, Pennsylvania 19102, and our telephone number is (215) 231-1000.

*Additional Information.* Our website address is [www.radian.biz](http://www.radian.biz). Copies of our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, as well as any amendments to those reports, are available free of charge through our website as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. In addition, our guidelines of corporate governance, code of business conduct and ethics (which includes the code of ethics applicable to our chief executive officer, principal financial officer and principal accounting officer) and the governing charters for each standing committee of Radian Group’s board of directors are available free of charge on our website, as well as in print, to any stockholder upon request.

The public may read and copy any materials we file with the SEC at the SEC’s Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC and the address of that site is [www.sec.gov](http://www.sec.gov).

The above references to our website and the SEC’s website do not constitute incorporation by reference of the information contained on the websites and such information should not be considered part of this document.

### ***Operating Environment***

As a diversified risk management company, we sell mortgage credit protection and other credit risk management solutions, as well as mortgage and real estate services. Therefore, the demand for our products and services is largely driven by the macroeconomic environment generally, and more specifically by the health of the housing, mortgage finance and related real estate markets.

*Mortgage Insurance.* Our mortgage insurance business is impacted by specific macroeconomic conditions and events that impact the mortgage origination environment and the credit performance of our underlying insured assets. The improvement in macroeconomic conditions since the financial crisis of 2007-2008 has contributed to the positive credit trends in our mortgage insurance portfolio, including a lower level of new defaults and higher cure rates. At the same time, increased regulation and regulatory scrutiny following the financial crisis have resulted in a more restrictive credit environment that has limited the growth of the mortgage industry. Among other factors, private mortgage insurance industry volumes are impacted by total mortgage origination volumes and the mix between mortgage originations that are for purchased homes versus refinancings of existing mortgages. Generally, mortgage insurance penetration in the overall insurable mortgage market has been three to five times higher for purchase originations than for refinancings. As a result of an increase in mortgage origination volume from home purchases and this meaningfully higher penetration for purchase originations, although the overall mortgage origination market for 2017 was smaller than it was in 2016, largely due to a decrease in refinancings as a result of higher interest rates, our NIW of \$53.9 billion written in 2017 was higher than our NIW for 2016. Industry forecasts for 2018 project a decline in the overall mortgage origination market, however purchase loan volume is expected to increase. Based on these industry forecasts, we currently expect our NIW for 2018 to be approximately \$50 billion.

The environment for private mortgage insurers is highly competitive. We compete with other private mortgage insurers primarily on the basis of price, underwriting guidelines, overall service, customer relationships, perceived financial strength and reputation. In addition to other private mortgage insurers, we compete with governmental agencies, principally the FHA and the VA. See “Mortgage Insurance—Competition.”

*Services.* The macroeconomic conditions and other events that impact the housing, mortgage finance and related real estate markets also affect the demand for our mortgage and real estate services. Sales volume in our Services business varies based on the overall activity in the housing and mortgage finance markets and the health of related industries. Notwithstanding the improvement in the U.S. economy and the housing and finance markets generally, the operating environment for our Services business has been challenging. Among other things, highly competitive conditions and decreased demand for certain of our services have limited the volume of business for some of our Services business lines. Additionally, growth opportunities for our Services segment have been limited given the continued lack of a meaningful non-GSE securitization market. As discussed above, we are responding to the challenging environment by restructuring this business to reposition it to drive future growth and profitability. See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Overview—Operating Environment and Business Strategy—Business Strategy.” In connection with the restructuring of this business, we have refined our Services business strategy going forward to focus on our core mortgage and real estate services that are aligned with our market expertise and the needs of our customers. We believe that the combination of our mortgage insurance with our unique set of diversified mortgage and real estate products and services will provide us with an opportunity to become increasingly relevant to our customers and differentiate us from other mortgage insurance competitors.

### ***Regulatory Environment***

Our subsidiaries are subject to comprehensive regulations and other requirements. State insurance regulators impose various capital requirements on our mortgage insurance subsidiaries, including Risk-to-capital, other risk-based capital measures and surplus requirements. In addition, the GSEs, as the largest purchasers of conventional mortgage loans and therefore the primary beneficiaries of most of our mortgage insurance, impose eligibility requirements that private mortgage insurers must satisfy to be approved to insure loans purchased by the GSEs. In order to be eligible to insure loans purchased by the GSEs, mortgage insurers such as Radian Guaranty must meet the GSEs’ eligibility requirements, or PMIERS, which became effective December 31, 2015. The PMIERS aim to ensure that approved insurers will possess the financial and operational capacity to serve as strong counterparties to the GSEs throughout various market conditions. The PMIERS are comprehensive, covering virtually all aspects of the business and operations of a private mortgage insurer. The PMIERS financial requirements require that a mortgage insurer’s Available Assets meet or exceed its Minimum Required Assets. Radian Guaranty currently is an approved mortgage insurer under the PMIERS and is in compliance with the PMIERS financial requirements. See “Regulation.”

Changes in the charters or business practices of the GSEs, including the GSEs' interpretation and application of the PMIERS, can have a significant impact on our business. The GSEs recently issued a summary of proposed changes to the PMIERS. Based on this initial summary, which remains subject to comment by the private mortgage insurance industry, we expect Radian Guaranty to be able to fully comply with the proposed PMIERS and to maintain an excess of Available Assets over Minimum Required Assets under the PMIERS as of the expected effective date in late 2018. See "Regulation."

## **Mortgage Insurance**

### **Mortgage Insurance Business Overview**

#### ***Overview***

Our Mortgage Insurance segment provides credit-related insurance coverage, principally through private mortgage insurance, as well as other credit risk management solutions, to mortgage lending institutions and investors nationwide. Private mortgage insurance plays an important role in the U.S. housing finance system because it promotes affordable home ownership and helps protect mortgage lenders, investors or other beneficiaries by mitigating default-related losses on residential mortgage loans. Generally, these loans are made to home buyers who make down payments of less than 20% of the home's purchase price or, in the case of refinancings, have less than 20% equity in their homes. Private mortgage insurance also facilitates the sale of these loans in the secondary mortgage market, most of which are sold to the GSEs.

See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting Our Results—*Mortgage Insurance*."

#### ***Mortgage Insurance Products***

*Primary Mortgage Insurance.* Primary mortgage insurance provides protection against mortgage defaults at a specified coverage percentage. When there is a valid claim under primary mortgage insurance, the maximum liability is determined by multiplying the claim amount, which consists of the unpaid loan principal, plus past due interest and certain expenses associated with the default, by the coverage percentage. Claims may be settled for the maximum liability or for other amounts. See "—Claims Management" below.

We generally provide primary mortgage insurance on an individual loan basis as each mortgage is originated. We also provide primary mortgage insurance on each individual loan in an aggregate group of mortgages after they have been originated. We primarily write insurance in a "first loss" position, where we are responsible for the first losses incurred on an insured loan subject to a policy limit. See "—Mortgage Insurance Portfolio—*Mortgage Loan Characteristics*."

The terms of our primary mortgage insurance coverage are set forth in a master insurance policy that we enter into with each of our customers. Our Master Policies are filed in each of the jurisdictions in which we conduct business. Among other things, our Master Policies set forth the terms and conditions of our mortgage insurance coverage, including: loan eligibility requirements; premium payment requirements; coverage term; provisions for policy administration; exclusions or reductions in coverage; claims payment and settlement procedures; and dispute resolution procedures. Although the mortgage insurance we write protects the lenders from a portion of losses resulting from loan defaults, it does not provide protection against property loss or physical damage. Among other exclusions, our Master Policies contain an exclusion against physical damage, including damage caused by floods or other natural disasters. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Overview—*Operating Environment and Business Strategy*."

We wrote \$53.9 billion and \$50.5 billion of first-lien primary mortgage insurance in 2017 and 2016, respectively. Substantially all of our primary mortgage insurance written during 2017 and 2016 was written on a Flow Basis. Our total direct primary mortgage insurance RIF was \$51.3 billion at December 31, 2017, compared to \$46.7 billion at December 31, 2016.

*Other Mortgage Insurance Products.* We also have other mortgage insurance products that had RIF of \$0.5 billion at December 31, 2017, as described below:

- *Pool Insurance.* Prior to 2008, we wrote Pool Insurance on a limited basis. At December 31, 2017, Pool Insurance made up only \$339.0 million of our total direct first-lien insurance RIF, as compared to \$965.0 million at December 31, 2016. With respect to our Pool Insurance, an aggregate exposure limit, or "stop loss" (usually between 1% and 10%), is generally applied to the initial aggregate loan balance on a group or "pool" of mortgages. In addition, an insured pool of mortgages may contain mortgages that are already covered by primary mortgage insurance. In these transactions, Pool Insurance is secondary to any primary mortgage insurance that exists on mortgages within the pool. The terms of our Pool Insurance policies are privately negotiated and are separate from the Master Policies that we use for our primary mortgage insurance.



- *GSE Credit Risk Transfer*. Part of our strategy includes leveraging our core expertise in credit risk management and expanding our presence in the mortgage finance industry. We are currently participating in Front-end and Back-end credit risk transfer programs developed by Fannie Mae and Freddie Mac as part of their initiative to increase the role of private capital in the mortgage market. We will only experience claims under these Front-end and Back-end credit risk transfer transactions if the borrower's equity, any existing primary mortgage insurance and the GSEs' retained risk are depleted. As of December 31, 2017, the total RIF under the Front-end and Back-end credit risk transfer transactions was \$100.4 million. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Overview—Operating Environment and Business Strategy—Business Strategy."
- *Non-Traditional Risk*. In the past, we provided other forms of credit enhancement on residential mortgage assets. Our non-traditional products included mortgage insurance on second-lien mortgage loans and we also provided mortgage insurance on an international basis. We have terminated substantially all of our international mortgage insurance except for an immaterial amount remaining from our insured portfolio in Hong Kong. Our total amount of non-traditional RIF as described above was \$24.4 million at December 31, 2017, as compared to \$36.5 million at December 31, 2016.

### **Premium Rates**

*Primary Mortgage Insurance*. A premium rate is determined when coverage is requested on a mortgage, which is generally near the time of loan origination. Premiums for our mortgage insurance products are established based on performance models that consider a broad range of borrower, loan and property characteristics as well as market and economic conditions. Our premium rates are generally subject to regulation, and in most states where our insurance subsidiaries are licensed, our premiums must be filed, and in some cases approved, before their use. See "Regulation—State Regulation—State Insurance Regulation."

We establish our premium levels to be competitive within the mortgage insurance industry and to achieve an overall risk-adjusted rate of return on capital given our modeled performance expectations. Our actual returns may differ from our expectations based on changing market conditions and other factors. Among other factors, we set our premium rates based on assumptions about policy performance, including, without limitation, our expectations and assumptions about: (i) the likelihood of default; (ii) how long the policy will remain in place; (iii) the costs of acquiring and maintaining the insurance; (iv) taxes; and (v) the capital that is required to support the insurance. Our performance assumptions for claim frequency and policy life are developed based on data regarding our own historical experience, as well as data generated from independent, third-party sources.

Premiums on our mortgage insurance products are generally paid either on a monthly installment basis ("Monthly Premiums") or in a single payment ("Single Premiums") generally paid at the time of loan origination. There are also alternative products ("Other") where premiums may be paid on an annual installment basis or on mortgage loans after their origination, or in other cases may include a refundable premium component or be paid as a combination of up-front premium at origination plus a monthly installment. Some programs, subject to certain conditions, provide coverage for the life of the loan while others terminate when certain criteria are met. There are many factors that influence the types of premiums we receive, including: (i) the percentage of mortgage originations derived from refinancing transactions versus new home purchases; (ii) the customers with whom we do business (e.g., mix of Single Premium Policies and policies with Monthly and Other Premiums varies by customer); and (iii) the relative premium levels we and our competitors set for the various forms of premiums offered. Before consideration of our 2016 Single Premium QSR Transactions, 77% of our NIW in 2017 was written with Monthly and Other premiums and 23% was written with Single Premiums, compared to 73% and 27%, respectively, in 2016.

Mortgage insurance premiums can be funded through a number of methods, and while the coverage remains for the benefit of the insured or third-party beneficiary, the premiums may be paid by the borrower or by the lender. Borrower-paid mortgage insurance premiums are paid either through separate escrowed amounts or financed as a component of the mortgage loan amount. Lender-paid mortgage insurance premiums are paid by the lender and are typically passed through to the borrower in the form of additional origination fees or a higher interest rate on the mortgage note. Our Monthly and Other Premiums are generally established as either: (i) a fixed percentage of the loan's amortizing balance over the life of the policy or (ii) as a fixed percentage of the initial loan balance for a set period of time (typically 10 years), after which the premium declines to a lower fixed percentage for the remaining life of the policy.

The impact of market conditions on our returns will vary based on, among other factors, whether the insurance is borrower-paid or lender-paid, and whether the payments are made monthly or in a single premium payment at the time of origination. See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting Our Results—*Mortgage Insurance—Premiums*.” A change in capital requirements on insured loans can also affect our returns. See “Item 1. Regulation—GSE Requirements—*PMIERS—Private Mortgage Insurer Eligibility Requirements*.”

*GSE Credit Risk Transfer Transactions.* Credit risk transfer premium rates are set by the GSEs through a sealed-bid auction process in which potential insurers/reinsurers provide their desired allocation of the offering(s) at a specified premium rate. Radian evaluates the transaction and determines its bid based on performance models that consider a broad range of borrower, loan and property characteristics as well as market and forecasted future economic conditions. The GSEs set a uniform premium based on an assessment of the bids received and, based on their desired counterparty exposure, assign allocations to insurers/reinsurers.

### ***Underwriting***

Mortgage loan applications are underwritten to determine whether they are eligible for our mortgage insurance. We perform this function directly or, alternatively, we delegate to our insured lenders the ability to underwrite the mortgage loans based on compliance with our underwriting guidelines.

*Delegated Underwriting.* Through our delegated underwriting program we approve insured lenders to underwrite mortgage loan applications based on our mortgage insurance underwriting guidelines. Each lender participating in the delegated underwriting program must be approved by our risk management group. Utilization of our delegated underwriting program enables us to meet lenders’ demands for immediate insurance coverage and increases the efficiency of the underwriting process. We use quality control sampling and performance monitoring to manage the risks associated with delegated underwriting. Under the terms of the program, we have certain rights to rescind coverage if there has been a deviation from our underwriting guidelines. For a discussion of these limited rescission rights, see “—Claims Management—*Rescissions*.” As of December 31, 2017, 66% of our total first-lien IIF had been originated on a delegated basis, compared to 68% as of December 31, 2016.

*Non-Delegated Underwriting.* In addition to our delegated underwriting program, insured lenders may also submit mortgage loan applications to us and we will perform the mortgage insurance underwriting. In general, we are less likely to exercise our Rescission rights with respect to underwriting errors related to loans that we underwrite for mortgage insurance. As a result, following a period of high Rescissions after the financial crisis, many lenders have chosen to have us perform the mortgage insurance underwriting on a non-delegated basis. Given the professional resources we need to maintain to underwrite mortgage loans, an increase in non-delegated underwriting demand generally increases our operating costs to support this program.

*Contract Underwriting.* We also provide third party contract underwriting services to our mortgage insurance customers through our Services segment. See “Services—Services Business Overview—*Services Offered—Loan Review, Underwriting and Due Diligence*.” During 2017, mortgage loans underwritten through contract underwriting accounted for 5.4% of insurance certificates issued on a Flow Basis, as compared to 7.1% in 2016.

## **Mortgage Insurance Portfolio**

### ***Direct Risk in Force***

Exposure in our mortgage insurance business is measured by RIF, which for primary insurance is equal to the underlying loan unpaid principal balance multiplied by the insurance coverage percentage.

Our total direct primary mortgage insurance RIF was \$51.3 billion at December 31, 2017. See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Mortgage Insurance—NIW, IIF, RIF” for additional information about the composition of our primary RIF. See “—Mortgage Insurance Business Overview—*Mortgage Insurance Products*” for additional information regarding other mortgage insurance RIF.

We analyze our mortgage insurance portfolio in a number of ways to identify any concentrations or imbalances in risk dispersion. We believe that, among other factors, the credit performance of our mortgage insurance portfolio is affected significantly by:

- general economic conditions (in particular, interest rates, home prices and unemployment);
- the age of the loans insured;
- the geographic dispersion of the properties securing the insured loans and the condition of local housing markets;

- the quality of underwriting at loan origination; and
- the credit characteristics of the borrower and the characteristics of the loans insured (including LTV, FICO, debt-to-income ratio, purpose of the loan, type of loan instrument, loan term, source of down payment, and type of underlying property securing the loan).

**Direct Primary RIF by Year of Policy Origination**

The following table shows our direct primary mortgage insurance RIF by year of origination and selected information related to that risk as of December 31, 2017:

(\$ in millions)	December 31, 2017					
	RIF	Number of Defaults	Delinquency Rate	Percentage of Reserve for Losses	Average FICO (1) at Origination (2)	Original Average LTV (2)
2008 and prior . . . . .	\$ 7,159	18,505	10.0%	80.8%	700	89.9%
2009. . . . .	298	221	3.0	0.8	752	88.8
2010. . . . .	264	110	1.9	0.4	764	91.6
2011. . . . .	682	202	1.4	0.7	762	91.6
2012. . . . .	2,830	579	1.1	1.8	763	91.7
2013. . . . .	4,557	1,231	1.5	3.2	757	91.9
2014. . . . .	4,356	1,654	2.0	3.9	747	92.1
2015. . . . .	7,096	1,974	1.6	4.2	749	91.9
2016. . . . .	10,992	2,195	1.2	3.2	749	91.6
2017. . . . .	13,054	1,251	0.6	1.0	748	92.2
Total . . . . .	\$ 51,288	27,922 <sup>(3)</sup>		100.0%		

- (1) Represents the borrower’s credit score at origination. In circumstances where there is more than one borrower, the FICO score for the primary borrower is utilized.
- (2) Average FICO at origination and original average LTV are weighted averages based on the unpaid principal balances of the underlying mortgage loans.
- (3) Includes 7,051 defaults at December 31, 2017 in the FEMA Designated Areas associated with Hurricanes Harvey and Irma, which occurred during the third quarter of 2017. See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Mortgage Insurance—*NIW, IIF, RIF—Provision for Losses.*”

The amount of time that our insurance certificates remain in force, which is affected by loan repayments and terminations of our insurance, can have a significant impact on our revenues and our results of operations. Our Persistency Rate is one key measure for assessing the impact that insurance terminations resulting in certificate cancellations have on our IIF. Because our insurance premiums are earned over time, higher Persistency Rates on Monthly Premium Policies increase the premiums we receive and generally result in increased profitability and returns. Conversely, assuming all other factors remain constant, higher Persistency Rates on Single Premium business lower the overall returns from our insured portfolio, as the premium revenue for our Single Premium Policies is the same regardless of the actual life of the insurance policy and we are required to maintain regulatory capital and Available Assets supporting the insurance for the life of the policy. The Persistency Rate of our primary mortgage insurance was 81.1% at December 31, 2017, compared to 76.7% at December 31, 2016. Historically, there is a close correlation between interest rates and Persistency Rates, primarily as a result of increased refinancings (which often result in the cancellation of our insurance) in lower interest rate environments. See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Mortgage Insurance—*NIW, IIF, RIF*” for the details regarding the Persistency Rates.

**Geographic Dispersion**

The following table shows, as of December 31, 2017 and 2016, the percentage of our direct primary mortgage insurance RIF and the associated percentage of our mortgage insurance reserve for losses (by location of property) for the top 10 states in the U.S. (as measured by our direct primary mortgage insurance RIF as of December 31, 2017):

<b>Top Ten States</b>	<b>December 31,</b>			
	<b>2017</b>		<b>2016</b>	
	<b>RIF</b>	<b>Reserve for Losses</b>	<b>RIF</b>	<b>Reserve for Losses</b>
California .....	12.4%	6.7%	12.4%	6.4%
Texas .....	8.3	5.5	7.8	4.4
Florida .....	6.8	12.2	6.6	11.8
Illinois .....	5.4	4.7	5.6	4.8
Georgia .....	4.0	3.3	4.1	3.5
Virginia .....	3.5	1.7	3.4	1.7
New Jersey .....	3.3	10.8	3.6	11.9
Arizona .....	3.1	1.4	3.1	1.3
Pennsylvania .....	3.1	3.5	3.2	3.7
Colorado .....	3.0	0.9	2.9	0.8
Total .....	<u>52.9%</u>	<u>50.7%</u>	<u>52.7%</u>	<u>50.3%</u>

The following table shows, as of December 31, 2017 and 2016, the percentage of our direct primary mortgage insurance RIF and the associated percentage of our mortgage insurance reserve for losses (by location of property) for the top 15 Core Based Statistical Areas, referred to as “CBSAs,” in the U.S. (as measured by our direct primary mortgage insurance RIF as of December 31, 2017):

<b>Top Fifteen CBSAs (1)</b>	<b>December 31,</b>			
	<b>2017</b>		<b>2016</b>	
	<b>RIF</b>	<b>Reserve for Losses</b>	<b>RIF</b>	<b>Reserve for Losses</b>
Chicago, IL-IN-WI .....	5.2%	4.5%	5.3%	4.6%
New York, NY-NJ-PA .....	4.2	18.9	4.7	19.5
Washington, DC-MD-VA .....	3.6	2.9	3.5	2.8
Los Angeles - Long Beach, CA .....	3.5	1.8	3.5	1.8
Atlanta, GA .....	3.2	2.5	3.3	2.6
Dallas, TX .....	3.1	1.6	3.0	1.4
Philadelphia, PA-NJ-DE-MD .....	2.4	3.5	2.6	3.9
Phoenix/Mesa, AZ .....	2.3	1.0	2.3	0.7
Houston, TX .....	2.1	2.1	2.1	1.5
Minneapolis-St. Paul, MN-WI .....	2.0	0.7	2.0	0.8
Miami, FL .....	2.1	4.6	2.0	4.4
Boston, MA-NH .....	1.8	1.6	1.9	1.7
Denver, CO .....	1.8	0.4	1.8	0.4
Riverside-San Bernardino, CA .....	1.8	1.3	1.7	1.3
Seattle, WA .....	1.5	1.0	1.5	1.2
Total .....	<u>40.6%</u>	<u>48.4%</u>	<u>41.2%</u>	<u>48.6%</u>

(1) CBSAs are metropolitan areas and include a portion of adjoining states as noted above.

### ***Mortgage Loan Characteristics***

In addition to geographic dispersion, other factors also contribute significantly to our overall risk diversification and the credit quality of our RIF, including product distribution, underwriting and our risk management practices. We consider a number of borrower and loan characteristics in evaluating the credit quality of our portfolio and developing our pricing and risk management strategies.

*LTV.* An important indicator of claim incidence in our mortgage insurance business is the relative amount of a borrower's equity that exists in a home. Generally, absent other mitigating factors such as high FICO scores and other credit factors, loans with higher LTVs at inception (i.e., smaller down payments) are more likely to result in a claim than lower LTV loans. The average LTV of our primary NIW in 2017 was 92.2%, compared to 91.4% and 91.5% in 2016 and 2015, respectively. See the "Percentage of primary NIW" table in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Mortgage Insurance—*NIW, IIF, RIF*" for a breakdown of the composition of our NIW by LTV.

*Loan Grade/FICO Score.* The risk of claim on non-prime loans is significantly higher than that on prime loans. We use our proprietary models to classify a loan as either prime or non-prime on the basis of a borrower's FICO score, the level of loan file documentation and other factors. In general we consider a loan to be a prime loan if the borrower's FICO score is 620 or higher and the loan file meets "fully documented" standards of our credit guidelines and/or the GSE guidelines for fully documented loans. Substantially all of our Post-legacy NIW has been on prime loans. See the "Primary RIF Distribution by Internal Risk Grade" chart in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Mortgage Insurance—*NIW, IIF, RIF*" for a breakdown of the composition of our RIF by internal risk grade.

Loans that we categorize as Alt-A and A minus and below are considered non-prime loans due to lower FICO scores, reduced loan file documentation, and/or the presence of other risk characteristics. See the "Primary RIF Distribution by Internal Risk Grade" chart in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Mortgage Insurance—*NIW, IIF, RIF*" for a breakdown of the composition of our RIF by risk grade.

*Loan Purpose.* Loan purpose may also impact our risk of loss. For example, cash-out refinance loans, where a borrower receives cash in connection with refinancing a loan, have been more likely to result in a claim than new purchase loans or loans that are refinanced only to adjust rate and term. See the "Primary RIF Distribution by Loan Purpose" chart in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Mortgage Insurance—*NIW, IIF, RIF*" for the percentage of our RIF comprising refinances.

*Loan Size.* Relatively higher-priced properties with larger mortgage loan amounts generally have experienced wider fluctuations in value than more moderately priced residences and have been more likely to result in a claim. The average loan size of our direct primary mortgage IIF as of December 31, 2017, 2016 and 2015 was \$210.0 thousand, \$203.2 thousand and \$199.3 thousand, respectively.

We consider other factors, including property type and occupancy type, in assessing our risk of loss. In general, it has been our experience that our risk of claim is lower on loans secured by single family detached housing than loans on other types of properties, and is higher on non-owner occupied homes purchased for investment purposes than on either primary or second homes.

See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Mortgage Insurance—*NIW, IIF, RIF*" for additional information about the credit quality and characteristics of our direct primary mortgage insurance.

### **Defaults and Claims**

*Defaults.* In our Mortgage Insurance segment, the default and claim cycle begins with the receipt of a default notice from the loan servicer. We consider a loan to be in default for financial statement and internal tracking purposes upon receipt of notification by servicers that a borrower has missed two monthly payments. Defaults also can occur due to a variety of specific events affecting borrowers, including death or illness, divorce or other family problems, unemployment, factors impacting regional economic conditions (e.g., hurricanes, floods or other natural disasters), or other events.

The default rate in our mortgage insurance business can be subject to seasonality. Historically, our mortgage insurance business experiences a fourth quarter seasonal increase in the number of defaults and a first quarter seasonal decline in the number of defaults and increase in the number of Cures. While this historically has been the case, macroeconomic factors in any given period may influence the default rate in our mortgage insurance business more than seasonality.

The loans from our 2009 and later origination years possess significantly improved credit characteristics compared to our Legacy Portfolio. For example, average FICO scores for the borrowers of these insured mortgages are higher compared to mortgages in our Legacy Portfolio. In addition, refinancings under the HARP programs have had a positive impact on the overall credit quality and composition of our mortgage insurance portfolio because the refinancing generally results in terms under which a borrower has a greater ability to pay and more financial flexibility to cover the loan obligations. Our portfolio of business written since the beginning of 2009 has been steadily increasing in proportion to our total primary RIF. The sum of our 2009 through 2017 portfolios and our HARP refinancings accounted for approximately 92% of our total primary RIF at December 31, 2017, compared to 88% at December 31, 2016. See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Mortgage Insurance” for additional information about refinancings under the HARP programs.

The following table shows the states that have generated the highest number of primary insurance defaults (measured as of December 31, 2017) in our insured portfolio and the corresponding percentage of total defaults as of the dates indicated:

	December 31,					
	2017		2016		2015	
States with highest number of defaults:						
Florida (1) . . . . .	5,337	19.1%	2,666	9.2%	3,571	10.1%
Texas (1) . . . . .	2,885	10.3	1,897	6.5	2,019	5.7
New York . . . . .	1,588	5.7	2,211	7.6	2,682	7.6
New Jersey . . . . .	1,473	5.3	2,146	7.4	2,686	7.6
Illinois. . . . .	1,283	4.6	1,534	5.3	1,894	5.4

(1) Certain areas within these states are FEMA Designated Areas associated with Hurricanes Harvey and Irma and, as a result, defaults in these states are elevated at December 31, 2017.

*Claims.* Defaulted loans that fail to become current, or “cure,” may result in a claim under our mortgage insurance policies. Mortgage insurance claim volume is influenced by the circumstances surrounding the default. The rate at which defaults cure, or do not go to claim, depends in large part on a borrower’s financial resources and circumstances (including whether the borrower is eligible for a loan modification), local housing prices and housing supply (i.e., whether borrowers are able to cure defaults by selling the property in full satisfaction of all amounts due under the mortgage), interest rates and regional economic conditions. In our first-lien primary insurance business, the insured must acquire title to the property (typically through a foreclosure proceeding) before submitting a claim. The time for a lender to acquire title to a property through foreclosure varies depending on the state, and in particular whether a state requires a lender to proceed through the judicial system in order to complete the foreclosure. Following the financial crisis of 2007-2008, the time between a default and a request for claim payment increased, largely as a result of foreclosure delays due to, among other factors, increased scrutiny within the mortgage servicing industry and foreclosure process. While delays in foreclosures have continued to extend the timing of claim submissions, as compared to historical experience, these delays have been modestly improving as the economy recovers from the financial crisis. For our Pool Insurance, our policies typically require the insured to not only acquire title but also to actively market and ultimately liquidate the real estate asset before filing a claim, which generally lengthens the time between a default and a claim submission.

Claim activity is not spread evenly throughout the coverage period of a book of business. Historically, for prime business relatively few claims are received during the first two years following issuance of a policy.

See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Mortgage Insurance—*NIW, IIF, RIF—Provision for Losses*” for various claims paid tables, including Direct Claims Paid by Origination Year.



The following table shows the states with the highest direct claims paid (measured as of December 31, 2017) for the periods indicated:

<u>(In millions)</u>	Year Ended December 31,		
	2017	2016	2015
States with highest direct claims paid (first-lien):			
New Jersey . . . . .	\$ 54.7	\$ 46.1	\$ 38.5
Florida . . . . .	45.7	59.4	183.4
New York . . . . .	34.2	26.6	26.2
Illinois . . . . .	23.4	32.3	64.2
California . . . . .	16.3	23.1	52.2

In addition to claim volume, Claim Severity is another significant factor affecting losses. We calculate the Claim Severity by dividing the claim paid amount by the original coverage amount. Factors that impact the severity of a claim include, but are not limited to, the size of the loan, the amount of mortgage insurance coverage placed on the loan, the amount of time between default and claim during which we are expected to cover certain interest (capped at two years under our Prior Master Policy and capped at three years under our 2014 Master Policy) and expenses, and the impact of our Loss Mitigation and other loss management activities with respect to the loan. Pre-foreclosure sales, acquisitions and other early workout efforts help to reduce overall Claim Severity, as do actions we may take to reduce a claim payment due to servicer negligence, as discussed below in “Claims Management.” Claim Severity remained elevated in 2017 due primarily to the continuing increased length of time between default and claim. See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Mortgage Insurance—*NIW, IIF, RIF—Provision for Losses.*”

**Claims Management**

Our claims management process is focused on promptly analyzing and processing claims to ensure that valid claims are paid in a timely and accurate manner. In addition, our mortgage insurance claims management department pursues opportunities to mitigate losses both before and after claims are received.

*Claims.* In our traditional mortgage insurance business, upon receipt of a valid claim, we generally have the following three settlement options:

- (1) pay the maximum liability and allow the insured lender to keep title to the property. The maximum liability is determined by multiplying (x) the claim amount (which consists of the unpaid loan principal, plus past due interest for a period of time specified in our Master Policies and certain expenses associated with the default) by (y) the applicable coverage percentage;
- (2) pay the amount of the claim required to make the lender whole (not to exceed our maximum liability), following an approved sale; or
- (3) pay the full claim amount and acquire title to the property.

Approved sales in which the underlying property has been sold for less than the outstanding loan amount are commonly referred to as “short sales.” Although short sales may have the effect of reducing our ultimate claim obligation, in many cases, a short sale will result in the payment of a claim in an amount that is equal to the maximum liability amount. Under our Master Policies, we retain the right to consent prior to the consummation of any short sales. We have entered into agreements with each of the GSEs, pursuant to which we delegated to the GSEs our prior consent rights with respect to short sales on loans owned by the GSEs, as long as the short sales meet the GSE guidelines and processes for short sales and subject to certain other factors set forth in these agreements. We also provide for limited delegation authority to certain loan servicers for short sales under specific circumstances. For loans that are not owned by the GSEs and for which we have not granted specific delegation authority to the loan servicer, we perform an individual analysis of each proposed short sale and provide our consent to these sales when appropriate. Historically, we have consented to a short sale only after reviewing various factors, including among other items, the sale price relative to market and the ability of the borrower to contribute to any shortfall in the sale proceeds as compared to the outstanding loan amount.



After a claim is received, our loss management specialists may focus on:

- a review to determine compliance with applicable loan origination programs and our mortgage insurance policy requirements, including: (i) whether the loan qualified for insurance at the time the certificate of coverage was issued and (ii) whether the insured has satisfied its obligation in meeting all necessary conditions in order for us to pay a claim, including submitting all necessary documentation in connection with the claim (commonly referred to as “claim perfection”);
- analysis and prompt processing to ensure that valid claims are paid in an accurate and timely manner;
- responses to loss mitigation opportunities presented by the insured; and
- management and disposal of acquired real estate.

*Claim Denials.* We have the legal right under our Master Policies to deny a claim if the loan servicer does not produce documents necessary to perfect a claim, including evidence that the insured has acquired title to the property, within the time period specified in our Master Policies. Most often, a Claim Denial is the result of a servicer’s inability to provide the loan origination file or other servicing documents for review. If, after requests by us, the loan origination file or other servicing documents are not provided to us, we generally deny the claim. If we deny a claim, we continue to allow the insured the ability to perfect the claim for a period of time specified in our Master Policies. If the insured successfully perfects the claim within our specified timelines, we will process the claim, including a review of the loan to ensure appropriate underwriting and loan servicing.

*Rescissions.* Under the terms of our Master Policies we have the legal right, under certain conditions, to unilaterally rescind coverage on our mortgage insurance policies. If we rescind coverage based on a determination that a loan did not qualify for insurance, we provide the insured with a period of time to challenge, or rebut, our decision.

Typical events that may give rise to our right to rescind coverage include: (i) we insure a loan under one of our Master Policies in reliance upon an application for insurance that contains a material misstatement, misrepresentation or omission, whether intentional or otherwise, or that was issued as a result of an act of fraud or (ii) we find that there was negligence in the origination of a loan that we insured. We also have rights of Rescission arising from a breach of the insured’s representations and warranties contained in an endorsement to our Master Policies that is required with our delegated underwriting program.

If a rebuttal to our Rescission is received and the insured provides additional information supporting the continuation (i.e., non-rescission) of coverage, we have the claim re-examined internally by a separate, independent investigator. If the additional information supports the continuation of coverage, the insurance is reinstated and the claim is paid. After completion of this process, if we determine that the loan did not qualify for coverage, the insurance certificate is rescinded (and the total premiums paid are refunded) and we consider the Rescission to be final and resolved. Although we may make a final determination internally with respect to a Rescission, it is possible that a legal challenge to our decision to rescind coverage may be brought after we have rescinded coverage during a period of time that is specified under the terms of our Master Policies.

In 2012, we began offering a limited rescission waiver program under our Prior Master Policy for our delegated underwriting customers, in which we agree not to rescind coverage due to non-compliance with our underwriting guidelines so long as the borrower makes 36 consecutive payments (commencing with the initial required payment) from his or her own funds. This program does not restrict our rights to rescind coverage in the event of fraud or misrepresentation in the origination of the loans we insure.

Following the financial crisis, the FHFA and the GSEs identified specific requirements to be included by all private mortgage insurers in their master policies for new mortgage insurance applications received on or after October 1, 2014. Among others, these included specific requirements related to loss mitigation and claims processing activities that limited the potential for Loss Mitigation Activity throughout the private mortgage insurance industry. Radian Guaranty incorporated these principles into its 2014 Master Policy. Radian Guaranty also offers 12-month and 36-month rescission relief programs in accordance with the specified terms and conditions set forth in the 2014 Master Policy. Loans that were already insured prior to the October 1, 2014 effective date of the 2014 Master Policy continue to be subject to the terms and conditions of Radian Guaranty’s Prior Master Policy.

The FHFA and the GSEs have proposed revised GSE Rescission Relief Principles to, among other things, further limit the circumstances under which mortgage insurers may rescind coverage. The GSEs have requested that these principles be incorporated into new master policies which they expect to be effective for new business written in 2019. We currently are in discussions with the GSEs regarding these proposed principles, which if adopted, are likely to further reduce our ability to rescind insurance coverage in the future, potentially resulting in higher losses than would be the case under our existing master insurance policies.

*Claim Curtailments.* We also have rights under our Master Policies to curtail, and in some circumstances, deny claims due to servicer negligence. Examples of servicer negligence may include, without limitation:

- a failure to report information to us on a timely basis as required under our Master Policies;
- a failure to pursue loss mitigation opportunities presented by borrowers, realtors and/or any other interested parties;
- a failure to pursue loan modifications and/or refinancings through programs available to borrowers or an undue delay in presenting claims to us (including as a result of improper handling of foreclosure proceedings), which increases the interest or other components of a claim we are required to pay; and
- a failure to initiate and diligently pursue foreclosure or other appropriate proceedings within the timeframe specified in our Master Policies.

Although we could seek post-claim recoveries from the beneficiaries of our policies if we later determine that a claim was not valid, because our loss mitigation process is designed to ensure compliance with our policies prior to payment of a claim, historically we have not sought recoveries from the beneficiaries of our mortgage insurance policies once a claim payment has been made.

### **Mortgage Insurance Risk Management**

Our mortgage insurance business employs a comprehensive risk management function, which is responsible for establishing our credit and counterparty risk policies, monitoring compliance with our policies, managing our insured portfolio and communicating credit related issues to management, the Credit Management Committee of Radian Group's board of directors, and to our customers.

*Risk Origination and Servicing.* We believe that understanding our business partners and customers is a key component of managing risk. Accordingly, we assign individual risk managers to specific customers so that they can more effectively perform ongoing monitoring of loan performance, underwriting quality and the risk profile and mix of business of a customer's mortgage insurance applications. This also allows us to address specific needs of individual customers. The risk managers are located across the country, and their direct interaction with our customers and their access to local markets improves our ability to observe business patterns and manage risk trends. This oversight provides us with the ability to review and study best practices throughout the industry and develop robust data management analysis. The risk managers leverage a suite of customer-level reports to monitor trends at the customer level, identify customers who may exceed certain risk tolerances, and share meaningful data with our customers. The risk managers are also responsible for lender corrective action in the event we discover credit performance issues, such as high early payment default levels.

*Portfolio Management.* We have developed risk and capital allocation models that support our mortgage insurance business. These models provide robust analysis to establish portfolio limits for product type, loan attributes, geographic concentrations and counterparties. We proactively monitor market concentrations across these and other attributes. We also identify, evaluate and negotiate potential transactions for terminating insurance risk and for distributing risk to others, including through reinsurance arrangements. See "Reinsurance—Reinsurance—Ceded" for more information about the use of reinsurance as a risk management tool in our mortgage insurance business.

As part of our portfolio management function, we monitor and analyze the performance of various risks in our mortgage insurance portfolio. We use this information to develop our mortgage credit risk and counterparty risk policies, and as a component of our default and prepayment analytics.

The portfolio management group analyzes the current composition of our mortgage insurance portfolio and assesses risks to the portfolio from the market (e.g., the effects of changes in home prices and interest rates) and risks from particular lenders, products and geographic locales.

*Credit Policy.* We have developed and maintain mortgage-related credit risk policies. These policies reflect our tolerance levels regarding counterparty, portfolio and operational risks involving mortgage collateral. Our credit policy function develops and updates our mortgage insurance eligibility and guidelines through regular monitoring of competitor offerings, customer input regarding lending needs, analysis of historical performance and portfolio trends, quality assurance results, underwriter experience and observations and risk tolerances. The credit policy function also maintains the policies for loan and lender-level exceptions to published guidelines and under-performing lenders, which are administered by mortgage insurance underwriters and risk managers. The credit policy function works closely with our mortgage insurance underwriters to ensure that underwriting decisions align with risk tolerances and principles.

*Quality Assurance.* Quality assurance is a key element of our credit analytics function, and as part of our quality control program, we audit individual loan files to examine underwriting decisions for compliance with agreed-upon underwriting guidelines. These audits are conducted across loans submitted through our delegated and non-delegated underwriting channels. Our quality assurance team audits both our customers and our underwriters to ensure quality in our NIW. Observations and trends derived from our quality assurance process serve as critical inputs into portfolio monitoring, eligibility and guideline updates, and customer surveillance and also provide valuable feedback to our customers and our underwriters regarding the quality of their mortgage insurance underwriting decisions.

*Loss Mitigation.* We have a dedicated loss mitigation group that works with servicers to identify and pursue loss mitigation opportunities for loans in both our performing and non-performing (defaulted) portfolios. This includes regular surveillance and benchmarking of servicer performance with respect to default reporting, borrower retention efforts, foreclosure alternatives and foreclosure processing. Through this process, we seek to hold servicers accountable for their performance and communicate to servicers identified best practices for servicer performance.

*Risk Modeling.* We have expertise in the development and deployment of integrated credit and interest rate risk models. Using analytical techniques, we have developed loan level default and prepayment models for a wide range of risk management applications, including portfolio analysis, credit decision making, forecasting, and reserving.

## Reinsurance

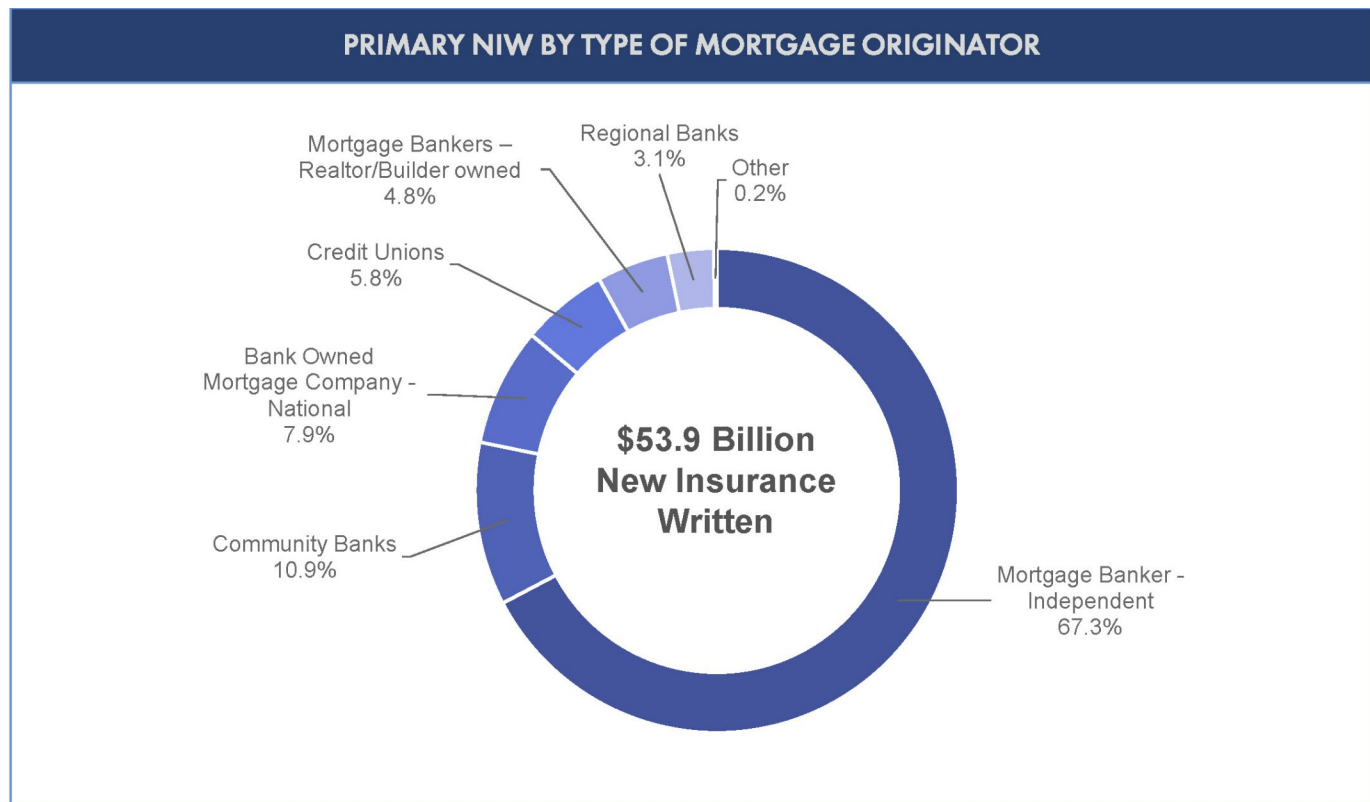
*Ceded.* We use reinsurance as a capital and risk management tool in our mortgage insurance business. We have entered into third-party reinsurance transactions as part of our capital and risk management activities, including QSR transactions that are utilized to proactively manage Radian Guaranty's position under the PMIERS financial requirements, and manage the mix of business in our portfolio. For additional information regarding our third-party QSR transactions, see Note 8 of Notes to Consolidated Financial Statements.

*Affiliate Reinsurance.* The state of Ohio limits the amount of risk a mortgage insurer may retain on a single loan to 25% of the total loan amount. Radian Guaranty currently uses reinsurance from an affiliated reinsurer to comply with these insurance regulations. See "Regulation—State Regulation—*Reinsurance.*"

*Captive Reinsurance.* In the past, we and other companies in the mortgage insurance industry participated in reinsurance arrangements with mortgage lenders commonly referred to as "captive reinsurance arrangements." Captive reinsurance typically was conducted on an "excess-of-loss" basis, with the captive reinsurer paying losses only after a certain level of losses had been incurred. In addition, on a limited basis, we participated in "quota share" captive reinsurance arrangements under which the captive reinsurance company assumed a pro rata share of all losses in return for a pro rata share of the premiums collected. As a result of the housing and related credit market downturn that began in 2007, most captive reinsurance arrangements "attached," meaning that losses exceeded the threshold so that our captive reinsurers are required to make payments to us. Ceded losses recoverable related to captives at December 31, 2017 were \$0.3 million. All of our remaining captive reinsurance arrangements are operating on a run-off basis. We have not entered into any new captive reinsurance arrangements since 2007, and we have agreements with the CFPB and the Minnesota Department of Commerce that we will not enter into any new captive reinsurance arrangements until April 2023 and June 2025, respectively. See Notes 8 and 13 of Notes to Consolidated Financial Statements.

## Customers

The principal customers of our mortgage insurance business are mortgage originators such as mortgage bankers, commercial banks, savings institutions, credit unions and community banks. Sources of primary NIW by type of mortgage originator for the year ended December 31, 2017 are shown in the chart below.



Our largest single mortgage insurance customer (including branches and affiliates) measured by primary NIW, accounted for 6.8% of NIW during 2017, compared to 5.7% and 4.6% in 2016 and 2015, respectively. No customer had earned premiums which accounted for more than 10% of our consolidated revenues in 2017, 2016 or 2015.

Beginning in 2009, we launched an initiative to significantly diversify our customer base. As a result of this initiative, the percentage of NIW generated by our top 10 customers has decreased from 62.3% in 2009 to 32.4% in 2017. Since 2010, we have added approximately 1,000 net new customers and significantly increased the amount of business derived from mid-sized mortgage banks. We believe these efforts have helped to reduce the potential impact to our business from the loss of any one customer.

## Competition

We operate in the highly competitive U.S. mortgage insurance industry. Our competitors include other private mortgage insurers and federal and state governmental agencies, principally the FHA and VA.

In addition to Radian Guaranty, the private mortgage insurers that are currently approved and eligible to write business for the GSEs are:

- Arch U.S. MI;
- Essent Guaranty Inc.;
- Genworth Financial Inc.;
- Mortgage Guaranty Insurance Corporation;
- NMI Holdings, Inc.; and
- United Guaranty Corp. (acquired by Arch Capital Group LLC in December 2016).

We compete directly with other private mortgage insurers primarily on the basis of price, underwriting guidelines, overall service, customer relationships, perceived financial strength (including comparative credit ratings) and reputation. Overall service includes services that are offered through our Services business and complement our mortgage insurance products. Overall service competition is based on, among other things, effective and timely delivery of products, timeliness of claims payments, customer service, timely and accurate servicing of policies, training, loss mitigation efforts and management and field service expertise.

Pricing has always been and continues to be competitive in the mortgage insurance industry, as industry participants compete for market share and customer relationships. As a result of this competitive environment, recent pricing trends have included: (i) the continued use of a spectrum of filed rates to allow for pricing based on more granular loan and borrower attributes (commonly referred to as “black-box” pricing); (ii) the use of customized (often discounted) rates on lender-paid, Single Premium Policies and to a limited extent, on borrower-paid Monthly Premium Policies, including in response to requests for pricing bids by certain lenders; and (iii) reductions by certain of our competitors of their standard rates for lender-paid Single Premium Policies. In the first half of 2016, there were wide-spread pricing changes made by private mortgage insurers. Since then, pricing throughout the industry has been relatively stable with respect to borrower-paid Monthly Premium Policies, although we believe that certain of our competitors recently have increased the frequency with which they are offering discounted, borrower-paid Monthly Premium Policies to lenders on a selective basis (i.e., not applying the discount to all similarly situated lenders). We remain disciplined in evaluating this trend and will make strategic pricing decisions going forward based on, among other factors, our perspective regarding the most appropriate path for achieving our overall objectives regarding growing the long term economic value of our mortgage insurance portfolio. In addition, we note that in 2016, the California Department of Insurance issued guidance to the mortgage insurance industry stating that any approved discounting of a mortgage insurer’s rates must be provided to all similarly situated customers of the mortgage insurer. This guidance follows a 2015 industry-wide inquiry by the Office of the Commissioner of Insurance of Wisconsin regarding rebating practices. Although the ongoing impact of this regulatory oversight is uncertain, it is possible that this attention to pricing practices will discourage mortgage insurers from engaging in the current practice of selective discounting of rates (i.e., not applying the discount to all similarly situated lenders). See “Item 1A. Risk Factors—*Our insurance subsidiaries are subject to comprehensive state insurance regulations and other requirements, which we may fail to satisfy.*”

We monitor various competitive and economic factors while seeking to balance both profitability and market share considerations in developing our pricing and origination strategies. We have taken a disciplined approach to establishing our premium rates and writing a mix of business that we expect to produce our targeted level of returns on a blended basis and an acceptable level of NIW. See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Mortgage Insurance—*NIW, IIF, RIF.*” As demonstrated by our strong NIW generated in 2017, we believe we remain well positioned to compete for the high-quality business being originated today, including the generally more profitable, borrower-paid business, while at the same time maintaining projected returns on NIW within our targeted ranges. Throughout 2017, our share of NIW within the private mortgage insurance market increased slightly and, based on publicly available information, we estimate that our share of NIW within the private mortgage insurance market (excluding HARP refinancings) was approximately 20% for 2017.

Certain of our private mortgage insurance competitors are subsidiaries of larger corporations, may have access to greater amounts of capital and financial resources than we do at a lower cost of capital (including, as a result of tax-advantaged, off-shore reinsurance vehicles) and have better financial strength ratings than we have. As a result, they may be better positioned to compete outside of traditional mortgage insurance, including if the GSEs expand their use of, or pursue alternative forms of, credit enhancement. In addition, because of tax advantages associated with being off-shore, certain of our competitors have been able to achieve higher after-tax rates of return on the NIW they write compared to on-shore mortgage insurers such as Radian Guaranty, which could allow these off-shore competitors to leverage reduced pricing to gain market share, while continuing to achieve acceptable returns on NIW. The impact of the recently enacted TCJA may, in some cases, reduce the tax advantage of being off-shore, depending on the specific tax facts and circumstances for each competitor.



We also compete with governmental agencies, principally the FHA and the VA. We compete with the FHA and VA on the basis of loan limits, pricing, credit guidelines, terms of our insurance policies and loss mitigation practices. Beginning in 2008, the FHA, which historically had not been a significant competitor, substantially increased its share of the mortgage insurance market which peaked at approximately 74% in 2009. Since then, the private mortgage insurance industry generally had been recapturing market share from the FHA, primarily due to: (i) improvements in the financial strength of private mortgage insurers; (ii) the development of new products and marketing efforts directed at competing with the FHA; (iii) increases in the FHA's pricing; (iv) the U.S. government's pursuit of legal remedies against FHA-approved lenders related to loans insured by the FHA; and (v) various policy changes at the FHA, including the general elimination of the premium cancellation provision. In January 2015, the FHA reduced its annual mortgage insurance premium by 50 basis points. This reduction, combined with our premium changes in April 2016 to increase our pricing for borrowers with lower FICO scores, has negatively impacted our ability to compete with the FHA on certain high-LTV loans to borrowers with FICO scores below 720. We believe, however, that our pricing changes made during the first half of 2016 enable us to more effectively compete with the FHA on certain high-LTV loans to borrowers with FICO scores above 720. In addition, we believe that better execution for borrowers with higher FICO scores, lender preference and the inability to cancel FHA insurance for certain loans are factors that continue to provide a competitive advantage for private mortgage insurers. The FHA's share of the total insured mortgage market (includes FHA, VA and private mortgage insurers) was 35% in both 2016 and 2017. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting Our Results—*Mortgage Insurance—NIW*." If the FHA reduces its pricing in the future, it could have a negative effect on our ability to compete with the FHA.

In addition, we have faced increasing competition from the VA. Based on publicly available information, the VA's share of the total insured mortgage market was 26% in 2017. We believe that the VA's market share has generally been increasing because the VA offers 100% LTV loans and charges a one-time funding fee that can be included in the loan amount with no additional monthly expense, and because of an increase in the number of borrowers that are eligible for the VA's program.

See "Item 1A. Risk Factors—*Our mortgage insurance business faces intense competition.*"

## Services

### Acquisition of Clayton

On June 30, 2014, we acquired Clayton, a leading provider of services and solutions to the mortgage and real estate industries. During the first quarter of 2015, we acquired Red Bell, a real estate brokerage, valuation and technology company, and in October 2015, we acquired ValuAmerica, a title insurance agency and appraisal management company. These acquisitions expanded our Services business in furtherance of our strategy to provide products and services across the residential mortgage and real estate value chain.

### Services Business Overview

#### *Overview*

Our Services segment is a fee-for-service business that offers a broad array of services to market participants across the mortgage and real estate value chain. These services comprise mortgage services and real estate services that provide mortgage lenders, financial institutions, mortgage and real estate investors and government entities, among others, with information and other resources and services that are used to originate, evaluate, acquire, securitize, service and monitor residential real estate and loans secured by residential real estate. Our mortgage services include transaction management services such as loan review, RMBS securitization and distressed asset reviews, servicer and loan surveillance and underwriting. Our real estate services include REO asset management, review and valuation services related to single family rental properties, real estate valuation services, real estate brokerage services and title and settlement services that include title search, settlement and closing services.

A key element of our overall business strategy is to use our Services segment to diversify our business and revenue streams by increasing our participation in multiple facets of the residential real estate and mortgage finance markets. In 2017, we undertook a strategic review of our Services business and made several decisions with respect to the business strategy that are designed to reposition this business to drive future growth and profitability. Following this strategic review, we committed to a restructuring plan and are focusing our efforts on offering those services that are expected to produce more predictable and recurring fee-based revenues over time. See “Item 7. Management’s Discussion and Analysis Financial Condition and Results of Operations—*Operating Environment and Business Strategy—Business Strategy*.” In connection with the restructuring of this business, we have refined our Services business strategy to focus on offering our core mortgage and real estate services. These services are further discussed below. We believe that the combination of our mortgage insurance with our unique set of diversified mortgage and real estate services will provide us with an opportunity to become increasingly relevant to our customers and provide us with competitive differentiation compared to other mortgage insurance competitors.

Our Services business previously offered mortgage and real estate services for the United Kingdom and European mortgage markets through its EuroRisk operations. The international revenues derived from this business were immaterial to the Services segment and we exited this line of business in connection with our restructuring plan.

### ***Services Offered***

*Mortgage Services.* Our mortgage services include loan-level due diligence for various asset classes and securitizations, with a primary focus on the residential mortgage and non-GSE RMBS markets, underwriting and compliance reviews and servicer and loan surveillance services. We utilize skilled professionals and proprietary technology to conduct these services, with product offerings focused on loan reviews, distressed asset reviews, credit underwriting, regulatory compliance and collateral valuation. These services help our clients understand the risk contained in a loan file, and provide them with information to help them price, acquire, securitize or service the assets we review. We also leverage our underwriting expertise to offer mortgage fraud review and re-verification, including identifying breaches in representations and warranties made by sellers of the loans.

As part of our underwriting services, we offer contract underwriting services and compliance reviews to verify that loan file documentation conforms to specified guidelines and regulatory requirements. In our contract underwriting business we underwrite our customers’ mortgage loan application files for secondary market compliance (e.g., for sale to the GSEs), and may concurrently assess the file for mortgage insurance eligibility. We offer these services to both our third-party Mortgage Insurance and Services customers. Generally, we offer limited indemnification to our contract underwriting customers. The legal entity and its employees that provide our contract underwriting services are compliant with the Secure and Fair Enforcement for Mortgage Licensing Act (“SAFE Act”) in all 50 states and the District of Columbia. We train our underwriters, require continuing education and routinely audit their performance to monitor the accuracy and consistency of underwriting practices.

Our surveillance services utilize proprietary technology and skilled professionals to provide ongoing, independent monitoring of mortgage servicer and loan performance. We offer risk management and servicing oversight solutions, including RMBS surveillance, regulatory and operational loan level oversight, asset representation review services in connection with securitizations, and consulting services. RMBS surveillance services monitor the servicers of mortgage loans underlying outstanding RMBS. Regulatory and operational loan level oversight provides regular monitoring of servicing operations to measure and assess compliance with applicable policies and regulations. Our asset representation review services provide targeted loan and receivable oversight for ABS issuers and their investors, including on asset classes other than mortgage loans, in the event of certain default triggers within the ABS.

*Real Estate Services.* Our real estate services include REO asset management, review and valuation services related to single family rental properties, real estate valuation services, real estate brokerage services and title and settlement services. We offer these services through our Clayton, Green River Capital, Red Bell and ValuAmerica subsidiaries.

Our valuation services consist of residential real estate pricing and valuations, including automated valuation models, broker price opinions and a variety of appraisal products, as well as real estate brokerage services and technology solutions. These valuation services are provided to originators, owners, purchasers and servicers of, and to investors in, performing and non-performing mortgage loans, REO properties and single family rental securitizations.

Our service offerings related to the single family rental market include valuations, property inspections, title reviews, lease reviews and tax lien reviews. We provide these services and due diligence reviews to issuers of single family rental securitizations as well as to lenders and investors in the single family rental market.



Our REO management services provide management of the entire REO disposition process, including management of the eviction and redemption process, management of property preservation and repairs, property valuation, title reviews and curative work, marketing, offer negotiation and closing services.

We also offer a comprehensive suite of title, closing and settlement services, including proprietary technology that we have developed to help automate workflow and compliance processes. As a title insurance agent, we offer title search, settlement and closing services for residential mortgage loans.

### ***Services Revenue Drivers***

For the most significant revenue drivers for our Services business, see “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting Our Results—*Services*.”

### ***Fee-for-Service Contracts***

Our Services segment is a fee-for-service business. Our services revenue is generated under three basic types of contracts:

*Fixed-Price Contracts.* Under fixed-price contracts, we agree to perform the specified services and deliverables for a pre-determined per-unit or per-file price or day rate. We use fixed-price contracts in our real estate valuation and component services, our loan review, underwriting and due diligence services as well as our title and closing services. We also use fixed-price contracts in our surveillance business for our servicer oversight services and RMBS surveillance services, and in our REO management business.

*Time-and-Expense Contracts.* Under a time-and-expense contract, we are paid a fixed hourly rate, and we are reimbursed for billable out-of-pocket expenses as work is performed. These contracts are used in our loan review, underwriting and due diligence services.

*Percentage-of-Sale Contracts.* Under percentage-of-sale contracts, we are paid a contractual percentage of the sale proceeds upon the sale of each property. These contracts are only used for a portion of our REO management services and our real estate brokerage services. In addition, through the use of our proprietary technology, property leads are sent to select clients. Upon the client’s successful closing on the property, we recognize revenue for these transactions based on a percentage of the sale.

In most cases, our contracts with our clients do not include minimum volume commitments and can be terminated at any time by our clients. Although some of our contracts and assignments are recurring in nature, and include repetitive monthly assignments, a significant portion of our engagements are transactional in nature and may be performed in connection with securitizations, loan sales, loan purchases or other transactions. Due to the transactional nature of our business, our Services segment revenues may fluctuate from period to period as transactions are commenced or completed. In addition, our segment revenues are impacted by the origination volumes of our customers which may fluctuate from period to period.

### **Customers**

We have a broad range of customers for our Services segment due to the breadth of services we are able to offer across the mortgage value chain. Our principal third-party customers are:

- Banks, credit unions, independent mortgage banks and other originators of mortgage loans;
- RMBS/ABS issuers, securitization trusts, the GSEs, private equity, hedge funds, real estate investment trusts, investment banks and other investors in mortgage-related debt instruments, whole loans and other securities;
- Owners of single family rental homes;
- Mortgage servicers; and
- Regulators and rating agencies involved in the mortgage, real estate and housing finance markets.

Our customers include many of the largest financial institutions and participants in the mortgage sector and, as such, our services revenue is concentrated among our largest customers. For the year ended December 31, 2017, the top 10 Services customers (which includes our affiliates) generated approximately 49% of the Services segment’s revenues. See “—Services Business Overview—*Services Revenue Drivers*.”

## Competition

We believe our Services business is uniquely positioned as a single provider of an array of services to participants across the residential mortgage and real estate value chain. We are not aware of any other company that provides a comparable range of services to the residential mortgage and real estate industries. However, our Services business has multiple competitors within each of its individual lines of business. Our competitors mainly include small privately-held companies and subsidiaries of large publicly-traded companies.

Significant competitors include:

- *Mortgage Services* - American Mortgage Consultants, Inc., Digital Risk, LLC, Opus Capital Markets Consultants, LLC, FTI Consulting, Inc., Pentalpha Surveillance LLC, TENA Companies, Inc., Adfitech Inc. and Navigant Consulting, Inc.
- *Real Estate Services* - ClearCapital.com, Inc., CoreLogic, Inc., Pro Teck Valuation Services, First American, Black Knight Financial Services, VRM Mortgage Services, Keystone Asset Management, Chronos Solutions LLC, Fidelity National Financial, Stewart Information Services Corporation, ServiceLink and Boston National

Across all business lines, we compete on the basis of industry expertise, price, technology, service levels and relationships.

We believe that combining our mortgage insurance franchise with our diversified set of mortgage and real estate products and services provides us with an opportunity to become increasingly relevant to our customers and enhances our ability to compete in the insured market by differentiating us from other mortgage insurance competitors.

## Enterprise Sales and Marketing

Our enterprise sales and marketing team is centralized to create a unified focus on selling all of our mortgage insurance and mortgage and real estate products and services across our customer base. Our Enterprise sales and marketing team offers a single point of contact for all Radian products and is supported by dedicated business unit and account management teams organized in various geographic regions across the U.S., as well as a telesales team located in our corporate headquarters in Philadelphia. At the enterprise level, we have a senior sales executive dedicated to each of the following areas: credit unions, banking institutions, investment bankers/private equity and fund managers, mortgage bankers, GSEs and servicers. We expect that our enterprise approach to selling the complementary products and services of our Mortgage Insurance and Services businesses will strengthen our relationships with our customers, attract new customers and enhance our ability to compete.

Our Mortgage Insurance dedicated business unit sales team includes a business development group that is focused on developing new mortgage insurance relationships and an account management group that is responsible for supporting our existing mortgage insurance relationships.

Our Services dedicated business unit sales team includes a title services sales team focused on developing new title services relationships and expanding and supporting existing customer relationships, and a mortgage and real estate services team responsible for selling other services offered by our Services business.

All sales efforts are supported by our telesales team that serves customers using any and all of our products and services, and is responsible for managing and growing customer relationships and promoting increased customer adoption.

All sales personnel are compensated by salary, and other incentive-based pay, which may be tied to the achievement of certain business objectives and sales goals or the promotion of certain products.

Additionally, we currently have exclusive affiliate partnerships with a number of organizations that are focused on supporting minority homeownership, including the National Association of Hispanic Real Estate Professionals (NAHREP), the National Association of Real Estate Brokers (NAREB) and the Asian Real Estate Association of America (AREAA). We believe that these partnerships will help us establish and deepen our relationship with the growing minority segments of the population that are expected to constitute a significant portion of new household formation in the U.S. in the future.

## Customer Support

We have developed training programs for our customers to help their employees develop the skills to respond to changing market demands. Our training is provided to customers to promote the role of private mortgage insurance in the marketplace as well as to promote Radian Guaranty's specific products and offerings. We offer training in three format options: instructor-led classroom sessions, instructor-led webinars and self-directed on-demand learning.

## Discontinued Operations — Financial Guaranty

### Business

Radian completed the sale of Radian Asset Assurance to Assured on April 1, 2015. For additional information related to discontinued operations, see Note 18 of Notes to Consolidated Financial Statements.

### Investment Policy and Portfolio

Our investment portfolio is our primary source of claims paying resources.

We have developed an investment strategy that uses an asset allocation methodology that considers our business environment and consolidated risks as well as current investment conditions. With respect to our fixed income investments, the following internal investment policy guidelines, among others, are applied at the time of investment:

- At least 75% of our fixed income portfolio, based on market value, must consist of investment securities that are assigned a quality designation of NAIC 1 by the NAIC or equivalent ratings by a nationally recognized statistical ratings organization (“NRSRO”) (i.e., “A-” or better by S&P and “A3” or better by Moody’s);
- A maximum of 25% of our fixed income portfolio, based on market value, may consist of investment securities that are assigned a quality designation of NAIC 2 by the NAIC or equivalent ratings by a NRSRO (i.e., “BBB+” to “BBB-” by S&P and “Baa1” to “Baa3” by Moody’s); and
- A maximum of 10% of our fixed income portfolio, based on market value, may consist of investment securities that are assigned quality designations NAIC 3 through 6 or equivalent ratings by a NRSRO (i.e., “BB+” and below by S&P and “Ba1” and below by Moody’s).

Our portfolio has been constructed to maximize long-term expected returns while maintaining an acceptable risk level. Our investment objectives are to utilize appropriate risk management oversight to optimize after-tax returns, while preserving capital. We target the level of our short-term investments to manage our expected short-term cash requirements.

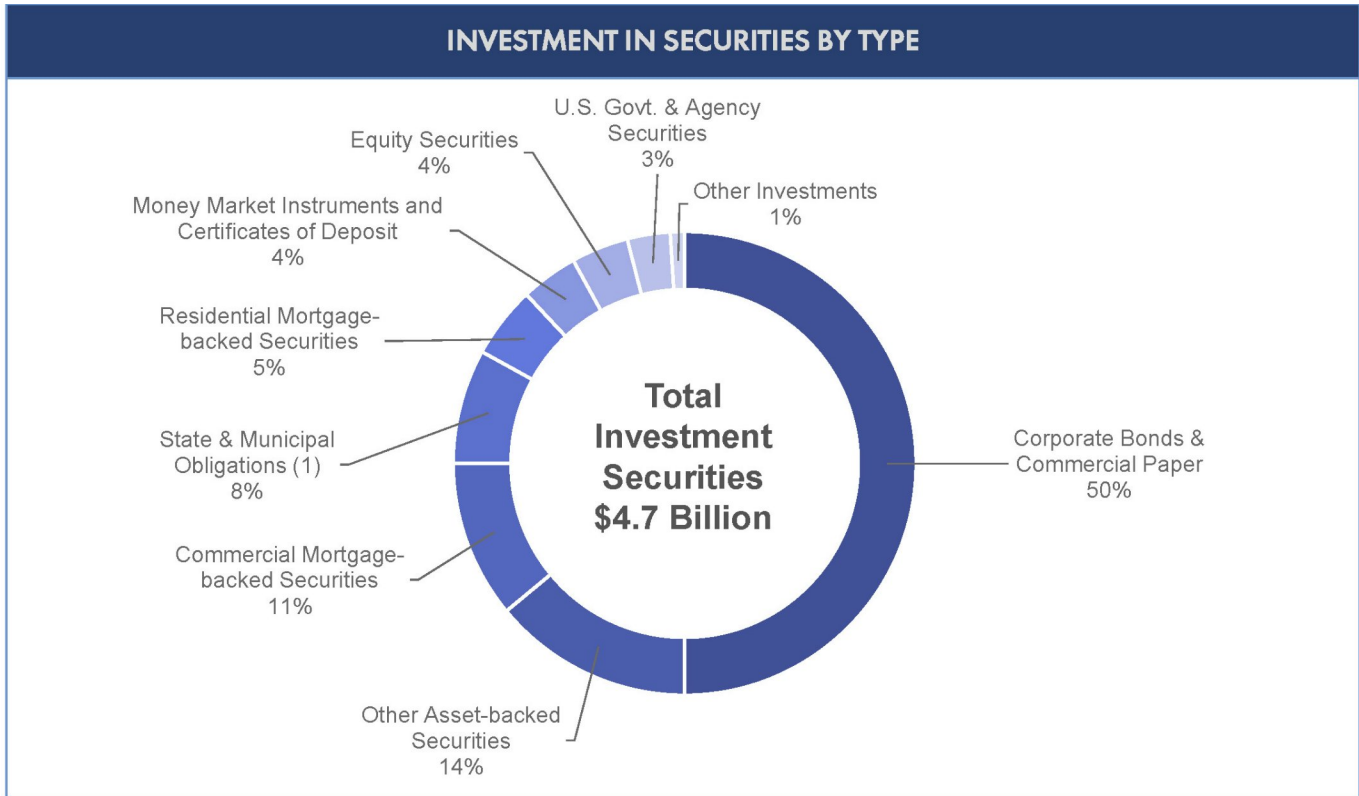
Our investment policies and strategies are subject to change, depending on regulatory, economic and market conditions and our then-existing or anticipated financial condition and operating requirements, including our current and future tax positions. The investments held at our insurance subsidiaries are also subject to insurance regulatory requirements applicable to such insurance subsidiaries.

Oversight responsibility of our investment portfolio rests with management, and allocations are set by periodic asset allocation studies, calibrated by risk, return and after-tax considerations. The risks we consider include, among others, duration, market, interest rate and credit risks. As of December 31, 2017, we internally manage 9% of the investment portfolio (the portion of the portfolio largely consisting of U.S. Treasury obligations and certain exchange-traded funds), with the remainder primarily managed by three external managers. External managers are selected by management based primarily upon the selected allocations, as well as factors such as historical returns and stability of their management teams. Management’s selections are presented to and approved by the Finance and Investment Committee of Radian Group’s board of directors.

At December 31, 2017, our investment portfolio had a cost basis of \$4.6 billion and a carrying value of \$4.7 billion, which includes \$0.5 billion of investments maturing within one year or less. Our investment portfolio did not include any direct residential real estate or whole mortgage loans at December 31, 2017. At December 31, 2017, 96.1% of our investment portfolio was rated investment grade. For additional information about our investment portfolio, see the information that follows, as well as Notes 5 and 6 of Notes to Consolidated Financial Statements.

**Investment Portfolio Diversification**

The composition of our investment portfolio, presented as a percentage of overall fair value at December 31, 2017, was as follows:



(1) Primarily consists of taxable state and municipal investments.

As of December 31, 2017, we did not have any investment in any person (including affiliates thereof) that exceeded 10% of our total stockholders' equity.

**Investment Portfolio Scheduled Maturity**

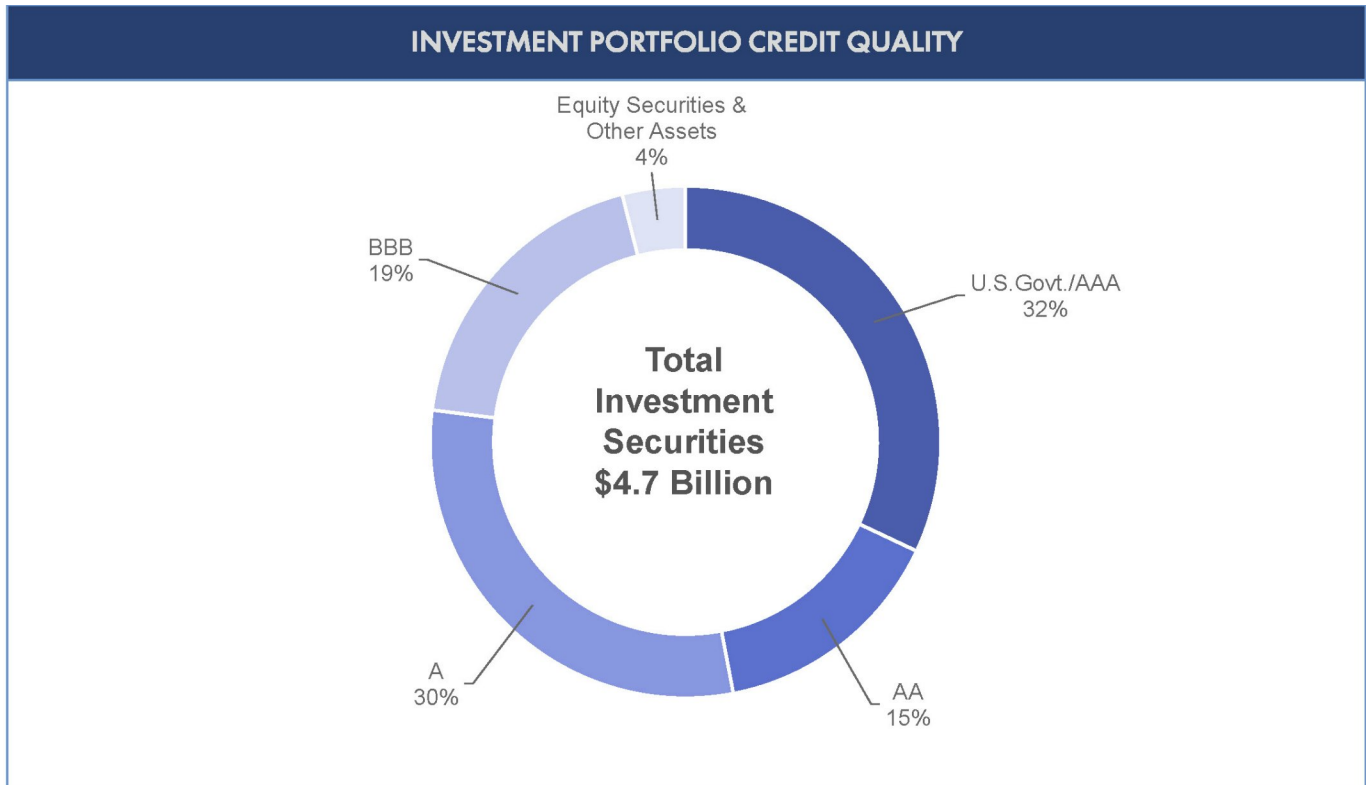
The weighted-average duration of the assets in our investment portfolio as of December 31, 2017 was 4.5 years. We seek to manage our investment portfolio to maintain sufficient liquidity within our risk and return tolerances and to satisfy our operating and other financial needs based on our current liabilities and business outlook. The following table shows the scheduled maturities of the securities held in our investment portfolio at December 31, 2017:

<b>(\$ in millions)</b>	<b>Fair Value</b>	<b>Percent</b>
Short-term investments . . . . .	\$ 396.3	8.5%
Due in one year or less (1) . . . . .	65.5	1.4
Due after one year through five years (1) . . . . .	991.9	21.3
Due after five years through ten years (1) . . . . .	1,076.5	23.1
Due after ten years (1) . . . . .	550.6	11.8
RMBS (2) . . . . .	216.8	4.7
CMBS (2) . . . . .	504.0	10.8
Other ABS (2) . . . . .	674.5	14.5
Other investments (3) . . . . .	179.3	3.9
Total . . . . .	\$ 4,655.4	100.0%

- (1) Actual maturities may differ as a result of calls before scheduled maturity.  
(2) RMBS, CMBS and other ABS are shown separately, as they are not due at a single maturity date.  
(3) No stated maturity date.

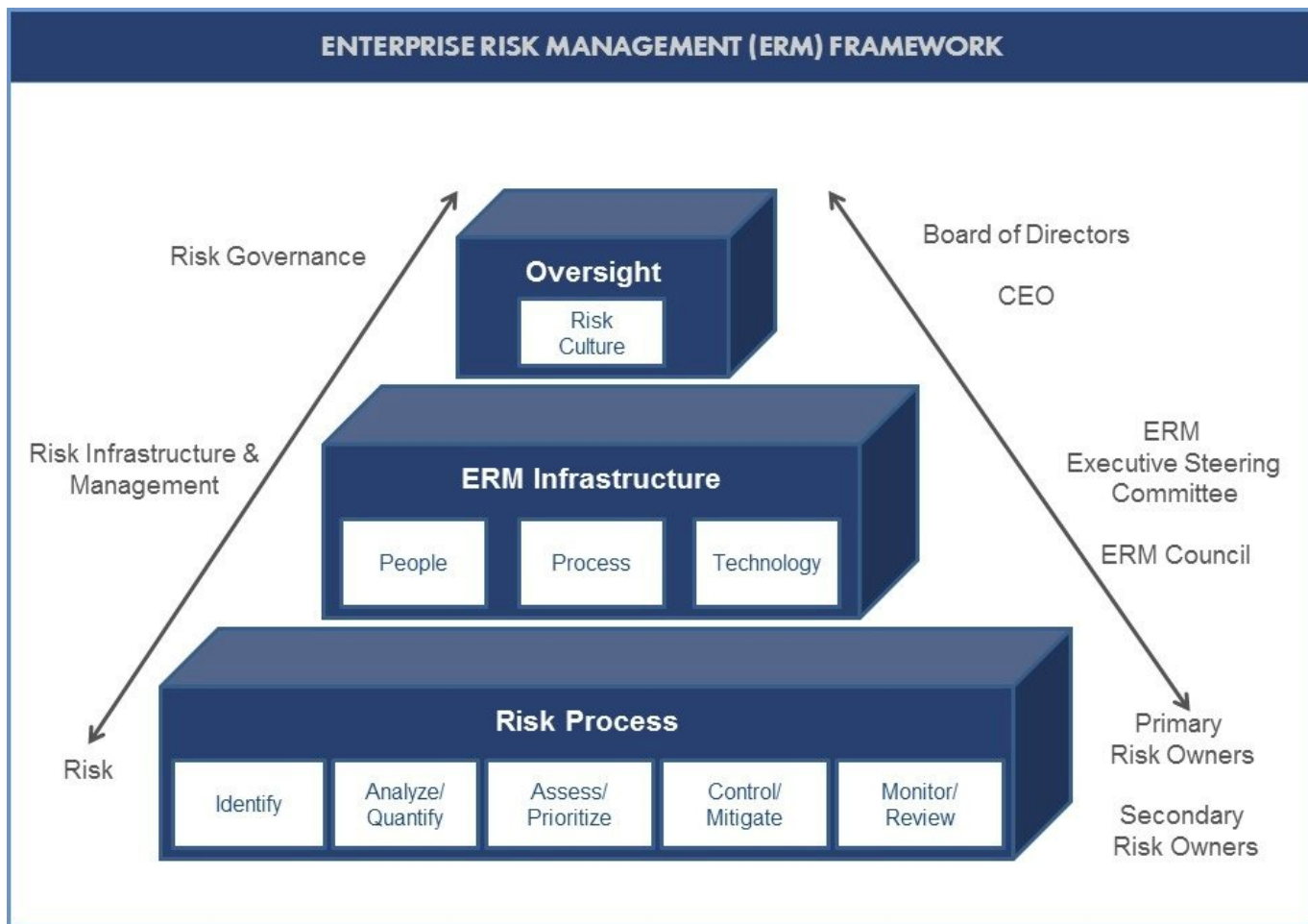
**Investment Portfolio by Rating**

The following chart provides the ratings of our investment portfolio, presented as a percentage of overall fair value, as of December 31, 2017:



## Enterprise Risk Management

We have adopted an integrated approach to risk management. As part of our risk management strategy, we have implemented a comprehensive Enterprise Risk Management (“ERM”) program as illustrated in the chart below.



Our ERM process is designed to provide executive management with the ability to evaluate the most significant risks we face and to calibrate our risk mitigation strategies to account for challenges in the current business environment, as well as external factors that may negatively impact our operations. The risks that fall under the program span the entire spectrum of organizational risks and include risks that may not be easily quantifiable or measurable. These include critical risks that fall into our credit, financial, operational, regulatory and compliance, and strategic risk categories. Enterprise level risk reviews are conducted for both our Mortgage Insurance and Services businesses.

Our ERM program takes a holistic approach to managing risks that we face in our businesses. A cross-functional team, guided by subject matter experts and experienced managers, follows a systematic method to identify, evaluate and monitor both known and emerging risks. Our ERM program includes ongoing analysis and ranking of the most significant risks and the alignment of risk management activities with business strategies. Risk assessments and mitigation plans are developed to address these risks. These assessments and plans are subject to review and modification to account for changes in markets and the regulatory environment, as well as other internal or external factors. At least quarterly, and more frequently as necessary, Radian Group’s board of directors receives a report regarding our ERM program and management’s evaluation of known and emerging risks, including changes in the potential impact and likelihood of these risks occurring.

Given the credit-based nature of our mortgage insurance business, in addition to our ERM policies, we employ more than 60 dedicated risk management professionals and have established credit, portfolio and counterparty risk policies. For information about risk management activities in our mortgage insurance business, see “Mortgage Insurance—Mortgage Insurance Risk Management.”



## Regulation

We are subject to comprehensive regulation by both federal and state regulatory authorities. Set forth below is a description of significant state and federal regulations and other requirements of the GSEs that are applicable to our businesses. The descriptions below are qualified in their entirety by reference to the full text of the laws and regulations discussed. See “Item 1A. Risk Factors—*Our insurance subsidiaries are subject to comprehensive state insurance regulations and other requirements, which we may fail to satisfy.*” and “Item 1A. Risk Factors—*Legislation and administrative and regulatory changes and interpretations could impact our businesses.*”

### State Regulation

#### *State Insurance Regulation*

We and our insurance subsidiaries are subject to comprehensive regulation by the insurance departments in the various states where they are licensed to transact business. Insurance laws vary from state to state, but generally grant broad supervisory powers to agencies or officials to examine insurance companies and enforce rules or exercise discretion affecting almost every significant aspect of the insurance business. These regulations principally are designed for the protection of policyholders, rather than for the benefit of investors.

Insurance regulations address, among other things, the licensing of companies to transact business, claims handling, reinsurance requirements, premium rates and policy forms offered to customers, financial statements, periodic reporting, permissible investments and adherence to financial standards relating to surplus, dividends and other measures of solvency intended to assure the satisfaction of obligations to policyholders.

Our mortgage insurance subsidiaries’ premium rates and policy forms are generally subject to regulation in every state in which they are licensed to transact business. These regulations are intended to protect policyholders against excessive, inadequate or unfairly discriminatory rates and to encourage competition in the mortgage insurance marketplace. In most states where our mortgage insurance subsidiaries are licensed, premium rates and policy forms must be filed with the state insurance regulatory authority and, in some states, must be approved before their use. Premium rates may be subject to actuarial justification, generally on the basis of the mortgage insurer’s loss experience, expenses and future projections. In addition, states may consider general default experience in the mortgage insurance industry in assessing the premium rates charged by mortgage insurers.

Each mortgage insurance subsidiary is required by the insurance regulatory authority of its state of domicile, and the insurance regulatory authority of each other jurisdiction in which it is licensed to transact business, to make various filings with those insurance regulatory authorities and with the NAIC, including quarterly and annual financial statements prepared in accordance with statutory accounting principles. In addition, our insurance subsidiaries are subject to examination by the insurance regulatory authority of their state of domicile, as well as each of the states in which they are licensed to transact business.

#### *Our Insurance Subsidiaries*

All of our mortgage insurance subsidiaries are domiciled in Pennsylvania. Listed below are our principal insurance companies as of December 31, 2017:

- *Radian Guaranty.* Radian Guaranty is our primary mortgage insurance company. Radian Guaranty is a direct subsidiary of Radian Group. Radian Guaranty is our only mortgage insurance company that is eligible to provide mortgage insurance on GSE loans. It is a monoline insurer, restricted to writing first-lien residential mortgage guaranty insurance. In addition to Pennsylvania, Radian Guaranty is authorized to write mortgage guaranty insurance (or in states where there is no specific authorization for mortgage guaranty insurance, the applicable line of insurance under which mortgage guaranty insurance is regulated) in each of the other 49 states, the District of Columbia and Guam. Radian Guaranty is a direct subsidiary of Radian Group.
- *Radian Reinsurance.* Radian Reinsurance is a licensed affiliated reinsurer that primarily provides reinsurance to Radian Guaranty. Radian Reinsurance is a direct subsidiary of Radian Group. We also use Radian Reinsurance to participate in the Front-end and Back-end credit risk transfer programs developed by Fannie Mae and Freddie Mac. See “Mortgage Insurance—Mortgage Insurance Business Overview—*Mortgage Insurance Products—GSE Credit Risk Transfer*” for more information about these programs.
- *Radian Insurance.* Radian Insurance is our insurance subsidiary that is authorized in Hong Kong to insure our remaining Hong Kong insurance portfolio and also insures our other remaining second-lien mortgage loan risk. Radian Insurance is a direct subsidiary of Radian Group.

In addition, we have the following insurance subsidiaries, each of which had no RIF as of December 31, 2017: Radian Investor Surety Inc., Radian Mortgage Guaranty Inc., Radian Guaranty Reinsurance and Radian Mortgage Assurance.

### ***Insurance Holding Company Regulation***

Radian Group is an insurance holding company and our insurance subsidiaries belong to an insurance holding company system. All states regulate insurance holding company systems, including the non-insurer holding company within that system. These laws generally require each insurance subsidiary within an insurance holding company system to register with the insurance regulatory authority of its domiciliary state, and to furnish to the regulators in these states applicable financial statements, statements related to intercompany transactions and other information concerning the holding company and its affiliated companies within the holding company system that may materially affect the operations, management or financial condition of insurers or the holding company system.

We are subject to the insurance holding company laws of Pennsylvania because all of our mortgage insurance subsidiaries are domiciled in Pennsylvania. These insurance holding company laws regulate, among other things, certain transactions between Radian Group, our insurance subsidiaries and other parties affiliated with us. The holding company laws of Pennsylvania also govern certain transactions involving Radian Group's common stock, including transactions that constitute a "change of control" of Radian Group and, consequently, a "change of control" of its insurance subsidiaries. Specifically, no person may, directly or indirectly, seek to acquire "control" of Radian Group or any of its insurance subsidiaries unless that person files a statement and other documents with the Pennsylvania Insurance Commissioner and receives prior approval from the Commissioner. Under Pennsylvania's insurance statutes, "control" is defined broadly and is "presumed to exist if any person, directly or indirectly, owns, controls, holds with power to vote or holds proxies representing 10% or more of the voting securities" of a holding company of a Pennsylvania domestic insurer. The statute further defines "control" as the "possession, direct or indirect, of the power to direct or cause the direction of the management and policies of" an insurer.

In addition, material transactions between us or our affiliates and our insurance subsidiaries or among our insurance subsidiaries are subject to certain conditions, including that they be "fair and reasonable." These conditions generally apply to all persons controlling, or who are under common control with, us or our insurance subsidiaries. Certain transactions between us or our affiliates and our insurance subsidiaries may not be entered into unless the Pennsylvania Insurance Commissioner is given 30 days' prior notification and does not disapprove the transaction during that 30-day period.

Pennsylvania also requires that we identify the material risks within the insurance holding company system that could pose enterprise risk to the insurer. Pennsylvania has adopted the Risk Management and Own Risk and Solvency Assessment Act, which was effective January 1, 2015 and requires, among other things, that Pennsylvania-domiciled insurers maintain a risk management framework and conduct an Own Risk and Solvency Assessment ("ORSA") annually in accordance with applicable NAIC requirements.

### ***Dividends***

Under Pennsylvania's insurance laws, dividends and other distributions may only be paid out of an insurer's positive unassigned surplus, measured as of the end of the prior fiscal year, unless the Pennsylvania Insurance Commissioner approves the payment of dividends or other distributions from another source. While all proposed dividends and distributions to stockholders must be filed with the Pennsylvania Insurance Department prior to payment, if a Pennsylvania domiciled insurer had positive unassigned surplus as of the end of the prior fiscal year, then unless the prior approval of the Pennsylvania Insurance Commissioner is obtained, such insurer could only pay dividends or other distributions during any 12-month period in an aggregate amount less than or equal to the greater of: (i) 10% of the preceding year-end statutory policyholders' surplus; or (ii) the preceding year's statutory net income.

Radian Guaranty and Radian Reinsurance had negative unassigned surplus at December 31, 2017 of \$765.0 million and \$112.1 million, respectively, therefore no ordinary dividends or other distributions can be paid by these subsidiaries in 2018 without approval from the Pennsylvania Insurance Commissioner. Neither Radian Guaranty nor Radian Reinsurance paid any ordinary dividends in 2017 or 2016. Due in part to the need to set aside contingency reserves, as discussed below, we do not expect that Radian Guaranty or Radian Reinsurance will have positive unassigned surplus, and therefore will not have the ability to pay ordinary dividends, for the foreseeable future. See Note 19 of Notes to Consolidated Financial Statements for a discussion of the Extraordinary Dividend paid from Radian Guaranty to Radian Group in connection with the reallocation of capital among our mortgage insurance subsidiaries.

All of our other insurance subsidiaries had negative unassigned surplus at December 31, 2017. Therefore, no ordinary dividends or other distributions can be paid by these subsidiaries in 2018 without approval from the Pennsylvania Insurance Commissioner.

### ***Risk-to-Capital***

Under state insurance regulations, Radian Guaranty is required to maintain minimum surplus levels and, in certain states, a minimum ratio of statutory capital relative to the level of net RIF, or Risk-to-capital. Sixteen states currently impose a Statutory RBC Requirement. The most common Statutory RBC Requirement is that a mortgage insurer's Risk-to-capital may not exceed 25 to 1. In certain of the RBC States, Radian Guaranty must satisfy a MPP Requirement. The statutory capital requirements for the non-RBC States are de minimis (ranging from \$1 million to \$5 million); however, the insurance laws of these states generally grant broad supervisory powers to state agencies or officials to enforce rules or exercise discretion affecting almost every significant aspect of the insurance business, including the power to revoke or restrict an insurance company's ability to write new business. Unless an RBC State grants a waiver or other form of relief, if a mortgage insurer, such as Radian Guaranty, is not in compliance with the Statutory RBC Requirement of that state, it may be prohibited from writing new mortgage insurance business in that state. Radian Guaranty's domiciliary state, Pennsylvania, is not one of the RBC States. In 2017 and 2016, the RBC States accounted for approximately 55.1% and 55.4%, respectively, of Radian Guaranty's total primary NIW. As of December 31, 2017, Radian Guaranty's Risk-to-capital was 12.8 to 1, and Radian Guaranty was in compliance with all applicable Statutory RBC Requirements.

The NAIC is in the process of reviewing the minimum capital and surplus requirements for mortgage insurers and considering changes to the Model Act. In May 2016, a working group of state regulators released an exposure draft of a risk-based capital framework to establish capital requirements for mortgage insurers. The process for developing this framework is ongoing. While the timing and outcome of this process is not known, in the event the NAIC adopts changes to the Model Act, we expect that the capital requirements in states that adopt the new Model Act may increase as a result of the changes. While we cannot provide any assurance, we do not believe that the capital requirements that may be adopted under the new Model Act are likely to exceed those of the PMIERS. See "Item 1A. Risk Factors—*Our insurance subsidiaries are subject to comprehensive state insurance regulations and other requirements, which we may fail to satisfy.*"

### ***Contingency Reserves***

For statutory reporting, mortgage insurance companies are required annually to set aside contingency reserves in an amount equal to 50% of earned premiums. Such amounts cannot be released into surplus for a period of 10 years, except when loss ratios exceed 35%, in which case the amount above 35% can be released under certain circumstances. The contingency reserve, which is designed to be a reserve against catastrophic losses, essentially restricts dividends and other distributions by mortgage insurance companies. We classify the contingency reserves of our mortgage insurance subsidiaries as a statutory liability. At December 31, 2017, Radian Guaranty and Radian Reinsurance had contingency reserves of \$1.7 billion, and \$234.0 million, respectively.

### ***Reinsurance***

Historically, certain states limited the amount of risk a mortgage insurer could retain on a single loan to 25% of the total loan amount, thereby requiring that coverage in excess of 25% (i.e., deep coverage) be reinsured. With the exception of Ohio, all states have eliminated this restriction, and the mortgage insurance industry has been in discussions with the Ohio Department of Insurance about possibly eliminating this restriction as well. We currently use Radian Reinsurance to provide deep coverage reinsurance to Radian Guaranty to satisfy the requirement in Ohio.

### ***Cybersecurity***

The New York Department of Financial Services issued cybersecurity regulations that became effective March 1, 2017 and apply to all financial institutions and insurance companies licensed under the New York Banking, Insurance, and Financial Services Laws, including Radian Guaranty and certain of our other subsidiaries. The regulations require covered entities to, among other things: establish a cybersecurity program; adopt a written cybersecurity policy; designate a Chief Information Security Officer responsible for implementing, overseeing and enforcing the cybersecurity program and policy; and have policies and procedures designed to ensure the security of information systems and nonpublic information accessible to, or held by, third-parties, along with a variety of other requirements to protect the confidentiality, integrity and availability of information systems. All of our covered entities currently are in compliance with these regulations.

### ***Real Estate, Title and Appraisal Management***

Certain of our Services subsidiaries are subject to regulation and oversight by the states where they conduct their businesses, including requirements to be licensed and/or registered in the states in which they conduct operations.

Red Bell and its affiliates provide real estate brokerage services in all 50 states and the District of Columbia, and they and their designated brokers are required to hold licenses and conduct their brokerage business in conformity with the applicable license laws and administrative regulations of the states in which they are conducting their business.

ValuAmerica and its affiliates provide title services and serve as an appraisal management company. These entities are required to hold the applicable required licenses in the jurisdictions where they operate their business. Title insurance agency licensing is primarily regulated by states in which the services are being offered, with licensing and registration typically within the jurisdiction of each state's department of insurance. ValuAmerica is domiciled and licensed in Pennsylvania as a resident title insurance agency and, together with its affiliates, is licensed in 32 additional states. Real estate appraisal management statutes and regulations vary from state to state, but generally grant broad supervisory powers to agencies or officials to examine companies and enforce rules. While these businesses are generally state regulated, the Dodd-Frank Act established minimum requirements to be implemented by states regarding the registration and supervision of appraisal management companies. Most states have based their legislation on model legislation developed by the Appraisal Institute for the registration and oversight of appraisal management companies. ValuAmerica and its affiliates are licensed to provide their appraisal management services in 39 states. ValuAmerica's affiliate, ValuEscrow, Inc., is a California licensed escrow company, and is required to maintain all applicable licenses and fidelity certifications to operate in California.

Radian Clayton Services LLC provides third party underwriting services to lenders, including services that may be deemed loan origination activities as defined by the SAFE Act (discussed below) and state law equivalents. This entity and its employees that provide our contract underwriting services are compliant with the SAFE Act in all 50 states and the District of Columbia. See “—Federal Regulation—*The Secure and Fair Enforcement for Mortgage Licensing Act (“SAFE Act”).*”

### **GSE Requirements**

*PMIERS - Private Mortgage Insurer Eligibility Requirements.* As the largest purchasers of conventional mortgage loans, and therefore, the main beneficiaries of private mortgage insurance, the GSEs impose eligibility requirements that private mortgage insurers must satisfy in order to be approved to insure loans purchased by the GSEs. The PMIERS became effective December 31, 2015, and aim to ensure that approved insurers will possess the financial and operational capacity to serve as strong counterparties to the GSEs throughout various market conditions. The PMIERS are comprehensive, covering virtually all aspects of the business and operations of a private mortgage insurer, including internal risk management and quality controls, the relationship between the GSEs and the approved insurer and the approved insurer's financial condition. The PMIERS contain extensive requirements related to the conduct and operations of our mortgage insurance business, including operational requirements in areas such as claim processing, loss mitigation, document retention, underwriting, quality control, reporting and monitoring, among others. In addition, the PMIERS require private mortgage insurers to obtain the prior consent of the GSEs before taking certain actions, which may include paying dividends, entering into various intercompany agreements and commuting or reinsuring risk, among others. The GSEs have significant discretion under the PMIERS and may amend the PMIERS at any time.

The PMIERS financial requirements require that a mortgage insurer's Available Assets meet or exceed its Minimum Required Assets.

The PMIERS financial requirements include increased financial requirements for defaulted loans, as well as loans with a higher likelihood of default and/or certain credit characteristics, such as higher LTVs and lower FICO scores, and for loans originated after January 1, 2016 that are insured under lender-paid mortgage insurance policies not subject to automatic termination under the Homeowners Protection Act of 1998 (the “HPA”). Therefore, if our mix of business includes a higher percentage of loans that are subject to these increased financial requirements, it increases the Minimum Required Assets and/or the amount of Available Assets that Radian Guaranty is required to hold. See “Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Overview—*Operating Environment and Business Strategy.*”

In addition, the PMIERS specifically provide that the factors that are applied to calculate and determine a mortgage insurer's Minimum Required Assets may be updated every two years following a minimum of 180 days' notice, or more frequently, as determined by the GSEs, to reflect changes in macroeconomic conditions or loan performance. Radian Guaranty received, on a confidential basis, a summary of proposed changes to the PMIERS on December 18, 2017. The GSEs have informed us that they expect updates to the PMIERS will become effective in the fourth quarter of 2018. Based on this initial summary, which remains subject to comment by the private mortgage insurance industry, it is reasonably likely that updates to the PMIERS could, among other things, result in a material increase to Radian Guaranty's capital requirements under the PMIERS financial requirements. Radian expects to be able to fully comply with the proposed PMIERS as of the expected effective date in late 2018.

We have entered into reinsurance transactions as part of our capital and risk management activities, including to manage Radian Guaranty's position under the PMIERS financial requirements, and the credit that we receive under the PMIERS financial requirements for these transactions is subject to the periodic review of the GSEs.



Radian Guaranty currently is an approved mortgage insurer under the PMIERS and is in compliance with the PMIERS financial requirements. Although we expect Radian Guaranty to retain its eligibility status with the GSEs and to continue to comply with the PMIERS financial requirements, including as they may be updated, we cannot provide assurance that this will occur. See “Item 1A. Risk Factors—*Radian Guaranty may fail to maintain its eligibility status with the GSEs.*”

*Other GSE Business Practices and Requirements.* The GSEs, acting independently or through their conservator, the FHFA, have the ability to change their business practices and requirements in ways that impact our business. Examples of recent changes or proposed changes in the GSEs’ business practices and requirements expected to impact our business are:

- the GSEs’ proposal of new minimum requirements for master insurance policies to revise the GSE Rescission Relief Principles to, among other things, further limit the circumstances under which mortgage insurers may rescind insurance coverage;
- the proposed changes to the PMIERS that are expected to become effective in the fourth quarter of 2018; and
- changes to underwriting standards on mortgages they purchase, including for example, the GSEs’ decision to expand credit in 2017 by purchasing a larger portion of loans with debt-to-income ratios greater than 45%.

For information on additional potential changes in GSE business practices and requirements that could impact our business, see “Item 1A. Risk Factors—*Changes in the charters, business practices, or role of the GSEs in the U.S. housing market generally, could significantly impact our mortgage insurance business.*”

## **Federal Regulation**

### ***Housing Finance Reform***

The federal government plays a significant role in the U.S. housing finance system through, among other things, the involvement of the FHFA and GSEs, the FHA and the VA. The GSEs’ charters generally prohibit them from buying low down payment mortgage loans without certain forms of credit enhancement, the primary form of which has been private mortgage insurance. There has been ongoing debate about the roles that the federal government and private capital should play in the housing finance system, and in recent years, there generally has been broad policy consensus that there is a need to increase the role of private capital. As a significant source of private capital in the existing housing finance system, private mortgage insurance is well-positioned in current legislative proposals to continue to be able to provide the type of coverage that is currently memorialized in rules implementing the GSE charters, sometimes referred to as “standard coverage.” However, to the extent new legislative action alters the existing GSE charters without explicit preservation of the role of private mortgage insurance for high-LTV loans, our business could be adversely affected. Furthermore, should legislative or administrative action, such as imposition of higher guarantee fees, changes to loan limits, or significantly tightening the credit underwriting standards at the GSEs, it is possible that FHA, VA, or U.S. Department of Agriculture (“USDA”) insured loans would result in better execution or price to consumers. In such a scenario, our business could be adversely impacted.

Since FHFA was appointed as conservator of the GSEs in September 2008, there has been a wide range of legislative proposals to reform the U.S. housing finance market, including proposals for GSE reform ranging from some that advocate nearly complete privatization and elimination of the role of the GSEs to others that support a system that combines a federal role with private capital. Recent proposals have focused on repurposing the GSEs and having them compete with other secondary market participants. In addition, the Trump administration and U.S. Treasury have stated that they are seeking to advance housing finance reform, particularly if the U.S. Congress does not take action to end the current conservatorship of the GSEs. Under current law, the FHFA has significant discretion with respect to the future state of the GSEs, including the ability to place the GSEs into receivership without further legislative action. The term of the current director of the FHFA ends in January 2019, which may increase the likelihood that the FHFA could take action to reform the GSEs.

The U.S. Treasury currently owns the preferred stock of the GSEs pursuant to the terms of a senior preferred stock purchase agreement and was prohibited from selling its stake in the GSEs until January 1, 2018. On December 21, 2017, the FHFA and the Treasury Department reached an agreement to reinstate a \$3 billion capital reserve for the GSEs under the senior preferred stock purchase agreement, allowing the GSEs to build a limited amount of reserves to allow for income fluctuations. Beyond this \$3 billion capital buffer, the GSEs are required to sweep all profits to the U.S. Treasury. It is possible that the U.S. Treasury could further amend the terms of the senior preferred stock purchase agreement to permit the GSEs to further retain profits and recapitalize which could, in turn, affect the prospects for comprehensive housing finance reform legislation.

In the absence of comprehensive housing finance reform legislation, the FHFA has made changes to the business and operations of the GSEs. As a mechanism for implementing changes, the FHFA uses the annual process of releasing a strategic plan for conservatorship and setting goals for the GSEs (the “Scorecard”) to meet as part of its ongoing regulation. Among other things, the 2018 Scorecard includes goals to increase access to single-family mortgage credit for creditworthy borrowers and to finalize post-financial crisis loss mitigation activities. In addition, the 2018 Scorecard calls for the GSEs to transfer a meaningful portion of credit risk, also known as “credit risk transfer,” to the private sector. The mandate for meaningful credit risk transfer builds upon the goals set in each of the last three years for the GSEs to transfer portions of their mortgage credit risk to the private sector by experimenting with different forms of transactions and structures. Since 2013, the GSEs have engaged in Front-end, Back-end and other credit risk transfer transactions that have transferred a portion of credit risk on over \$2.0 trillion of unpaid principal balance. During 2016 and 2017, we participated in Front-end credit risk transfer programs developed by Fannie Mae and Freddie Mac, and in 2017 we also began to participate in similar Back-end credit risk transfer programs covering existing loans in the GSEs’ portfolios. For more information about these programs, see “Mortgage Insurance—Mortgage Insurance Business Overview—Mortgage Insurance Products—Non-Traditional Risk.” It is difficult to predict what other types of credit risk transfer transactions and structures might be used by the GSEs in the future. If any of the credit risk transfer transactions and structures that are being developed were to displace primary loan level, standard levels of mortgage insurance, the amount of insurance we write may be reduced. However, the GSEs also have solicited comments regarding the possibility of including additional mortgage insurance in excess of standard coverage amounts through a concept known as “deeper cover mortgage insurance,” which could increase the amount of insurance we write. As a result, it is difficult to predict the impact of any credit risk transfer products and transactions implemented by the GSEs.

See “Item 1A. Risk Factors—Changes in the charters, business practices, or role of the GSEs in the U.S. housing market generally, could significantly impact our mortgage insurance business.” and “—Our mortgage insurance business faces intense competition.”

#### **FHA**

Private mortgage insurance competes with the single-family mortgage insurance programs of the FHA. As such, the FHA is one of our biggest competitors. We compete with the FHA on the basis of loan limits, pricing, credit guidelines, terms of our insurance policies and loss mitigation practices. Since the financial crisis, the loan limits for FHA-insured loans and the loan limits for GSE conforming loans have been substantially the same. It is possible that, in the future, Congress could impose different loan limits for FHA loans than for GSE conforming loans as it has done in the past, which could impact the competitiveness of private mortgage insurance in relation to FHA programs.

Beginning in 2008, the FHA, which historically had not been a significant competitor, substantially increased its market share of the insured mortgage market. Since then, the private mortgage insurance industry generally had been recapturing market share from the FHA, primarily due to: (i) improvements in the financial strength of private mortgage insurers; (ii) the development of new products and marketing efforts directed at competing with the FHA; (iii) increases in the FHA’s pricing; (iv) the U.S. government’s pursuit of legal remedies against FHA-approved lenders related to loans insured by the FHA; and (v) various policy changes at the FHA, including the general elimination of the premium cancellation provision. In January 2015, the FHA reduced its annual mortgage insurance premium by 50 basis points to approximately 85 basis points for loans entering the origination process on or after January 26, 2015, including refinancings. The FHA’s upfront mortgage insurance premium was not changed. The FHA’s pricing reduction in January 2015, combined with our premium changes in April 2016 to increase our pricing for borrowers with lower FICO scores, has negatively impacted our ability to compete with the FHA on certain high-LTV loans to borrowers with FICO scores below 720. However, we believe that our pricing changes made during the first half of 2016 enable us to more effectively compete with the FHA on certain high-LTV loans to borrowers with FICO scores above 720. Further reductions in the FHA’s annual premiums or changes to its policies may further impact our competitiveness with the FHA.

Given that FHA and GSE reform have significant impacts on each other, as well as on borrower access to credit and the housing market more broadly, policymakers may consider both GSE reform and FHA reform together. It is unclear whether FHA reform legislation will be adopted and, if so, what provisions it might ultimately contain. If legislative changes to the FHA and GSEs are not made contemporaneously, there is a possibility that the relative competitiveness of private mortgage insurance could be disadvantaged.



### ***The Dodd-Frank Act***

The Dodd-Frank Act mandates significant rulemaking by several regulatory agencies to implement its provisions. The Dodd-Frank Act established the CFPB to regulate the offering and provision of consumer financial products and services under federal law, including residential mortgages, and transferred authority to the CFPB to enforce many existing consumer related federal laws, including the Truth in Lending Act (“TILA”) and RESPA. Recent legislative efforts have focused on repealing certain provisions of the Dodd-Frank Act, including provisions relating to the structure and authority of the CFPB.

Among the most significant provisions for private mortgage insurers under the Dodd-Frank Act are the ability to repay mortgage provisions (“Ability to Repay Rule”), the securitization risk retention provisions and the expanded mortgage servicing requirements under TILA and RESPA.

*Qualified Mortgage Requirements - Ability to Repay Requirements.* The Ability to Repay Rule requires mortgage lenders to make a reasonable and good faith determination that, at the time the loan is consummated, the consumer has a reasonable ability to repay the loan. The Dodd-Frank Act provides that a creditor may presume that a borrower will be able to repay a loan if the loan has certain low-risk characteristics that meet the definition of a qualified mortgage.

The CFPB established rigorous underwriting and product feature requirements for the loans to be deemed qualified mortgages (“QM Rule”). Within those regulations, the CFPB created a special exemption for Fannie Mae and Freddie Mac for a period ending upon the earlier of the end of conservatorship or January 10, 2021, which allows any loan that meets the GSE underwriting and product guidelines to be a qualified mortgage.

The Dodd-Frank Act also granted the FHA, VA and the U.S. Department of Agriculture flexibility to establish their own definitions of qualified mortgages for their insurance guaranty programs. Both the FHA and VA have created their own definition of qualified mortgages that differ from both the CFPB’s definition and the current underwriting and product guidelines at the GSEs that are subject to the special exemption. These alternate definitions of qualified mortgages are more favorable to lenders and mortgage holders than the CFPB QM Rule that applies to the GSEs and the markets in which we operate, which could drive business to these agencies and have a negative impact on our mortgage insurance business.

*Qualified Residential Mortgage Regulations - Securitization Risk Retention Requirements.* The Dodd-Frank Act requires securitizers to retain at least 5% of the credit risk associated with mortgage loans that they transfer, sell or convey, unless the mortgage loans are qualified residential mortgages (“QRMs”) or are insured by the FHA or another federal agency. Under applicable federal regulations, a QRM is generally defined as a mortgage meeting the requirements of a qualified mortgage under the CFPB’s QM Rule described above. Because of the capital support provided by the U.S. government to the GSEs, the GSEs satisfy the proposed risk retention requirements of the Dodd-Frank Act while they are in conservatorship, so sellers of loans to the GSEs currently are not be subject to the risk retention requirements referenced above. This means that securitizers would not be required to retain risk under the final QRM rule on loans that are guaranteed by the GSEs while in conservatorship. The final rule requires the agencies that implemented the rule to review the QRM definition no later than four years after its effective date (*i.e.*, December 2018) and every five years thereafter, and allows each agency to request a review of the definition at any time.

*Mortgage Servicing Rules.* Among its products and services, our Services business provides services to financial institutions that are focused on evaluating compliance with and establishing processes and procedures to implement national and state servicing standards, including the CFPB’s mortgage servicing regulations. The Dodd-Frank Act amended and expanded upon mortgage servicing requirements under TILA and RESPA. The CFPB amended Regulation Z (promulgated under TILA) and Regulation X (promulgated under RESPA) to conform these regulations to the new statutory requirements. Among other things, the rules include new or enhanced requirements for handling loans that are in default. Complying with the mortgage servicing rules has been challenging and costly for many loan servicers. Since the final rules were adopted in 2014, the CFPB has clarified those rules through subsequent rulemakings and provided guidance on how servicers must apply them in certain circumstances. Most recently, in October 2017 the CFPB issued an interim final rule that amended provisions of the Regulation X mortgage servicing rules that it had previously issued in 2016.

*Other.* In addition to the foregoing, the Dodd-Frank Act establishes a Federal Insurance Office within the U.S. Treasury (the “FIO”). While the FIO does not have a general supervisory or regulatory authority over the business of insurance, the director of this office performs various functions with respect to insurance, such as serving as a non-voting member of the Financial Stability Oversight Council. It is difficult to predict whether legislators or other executive agencies will pursue the development and implementation of federal standards for the mortgage insurance industry. However, to the extent these recommendations are acted upon by legislators or other executive action, a divergence from the current system of state regulation could significantly change compliance burdens and possibly impact our financial condition.

## **RESPA**

Settlement service providers in connection with the origination or refinance of a federally regulated mortgage loan are subject to RESPA and Regulation X. Under the Dodd-Frank Act, the authority to implement and enforce RESPA was transferred to the CFPB. RESPA authorizes the CFPB, the U.S. Department of Justice, state attorneys general and state insurance commissioners to bring civil enforcement actions, and also provides for criminal penalties and private rights of action.

Mortgage insurance and other products and services provided by Radian's affiliates are considered settlement services for purposes of RESPA. The anti-referral fee and anti-kickback provisions of Section 8 of RESPA generally provide, among other things, that settlement service providers are prohibited from paying or accepting anything of value in connection with the referral of a settlement service or sharing in fees for those services. RESPA also prohibits requiring the use of an affiliate for settlement services. In addition to mortgage insurance, through our Services business we offer a broad array of both settlement and non-settlement services to our customers, including real estate, valuation, appraisal, title and closing services. To the extent products and services provided by our Services business are settlement services for purposes of RESPA, the anti-referral fee, anti-kickback, and required use provisions of RESPA may apply which could impact how these products and services are marketed and sold.

In the past, we and other mortgage insurers have faced lawsuits alleging, among other things, that our captive reinsurance arrangements constituted unlawful payments to mortgage lenders under RESPA. We also have been subject to lawsuits alleging that our Pool Insurance and contract underwriting services violated RESPA. In addition, we and other mortgage insurers have been subject to inquiries and investigative demands from state and federal governmental agencies, including the CFPB, requesting information relating to captive reinsurance. In April 2013, we reached a settlement with the CFPB that concluded its investigation with respect to Radian Guaranty without any findings of wrongdoing. As part of the settlement, Radian Guaranty paid a civil penalty and agreed that it would not enter into any new captive reinsurance agreement or reinsure any new loans under any existing captive reinsurance agreement for a period of 10 years ending in 2023. In June 2015, Radian Guaranty executed a Consent Order with the Minnesota Department of Commerce that resolved the Minnesota Department of Commerce's outstanding inquiries related to captive reinsurance arrangements involving mortgage insurance in Minnesota without any findings of wrongdoing. As part of the Consent Order, Radian Guaranty paid a civil penalty and agreed not to enter into new captive reinsurance arrangements until June 2025. We have not entered into any new captive reinsurance arrangements since 2007.

The CFPB amended Regulations X and Z to establish significant new disclosure requirements and forms in Regulation Z for most closed-end consumer credit transactions secured by real property through a regulation known as the "TRID rule." The TRID rule became effective October 3, 2015, and mandates that a series of enhanced disclosures be provided to consumers in connection with the origination of most types of residential mortgage loans. The increased burden on loan originators to implement and comply with the TRID rule resulted in a slowdown in the volume of newly originated loans and delays in the closing of mortgage loans. In addition, difficulties implementing the new disclosure rules and uncertainty with respect to certain aspects of the TRID rule, including uncertainty as to whether a closed loan fully complies with the TRID rule requirements, has had a negative impact on the purchase of loans in the secondary market by private investors which negatively impacted the number of transactions available for the loan review, underwriting and due diligence services offered by our Services segment. In July 2016, the CFPB issued proposed amendments to the TRID rule that would formalize CFPB guidance and provide greater clarity and certainty for market participants, and finalized these amendments in the form of new TRID rules in July of 2017, known as "TRID 2.0." Mandatory compliance with TRID 2.0 becomes effective in October 2018. We believe that the guidance that has been provided by the CFPB, together with TRID 2.0, will reduce the uncertainty and remove the impediments to originating new loans that followed the implementation of the original TRID rule.

### ***Homeowner Assistance Programs***

The Emergency Economic Stimulus Act of 2008 ("EESA") included a requirement to "maximize assistance to homeowners and encourage mortgage servicers to take advantage of available programs (including the Hope for Homeowners program) to minimize foreclosures." In 2008, the U.S. Treasury announced the Homeowner Affordability and Stability Plan to restructure or refinance mortgages to avoid foreclosures through: (i) refinancing mortgage loans through HARP; (ii) modifying first- and second-lien mortgage loans through HAMP and the Second Lien Modification Program; and (iii) offering other alternatives to foreclosure through the Home Affordable Foreclosure Alternatives Program. HAMP expired in December 2016 and was replaced with the "Flex Modification" program that will offer payment relief similar to HAMP. The HARP deadline for refinancing has been extended to December 31, 2018.

During the third quarter of 2017, Hurricanes Harvey and Irma caused extensive property damage to areas of Texas, Florida and Georgia, as well as other general disruptions including power outages and flooding. As part of our comprehensive relief program initiated in response to these hurricanes, we are supporting the disaster relief policies issued by the GSEs that provide various forms of assistance to accommodate the financial needs of homeowners in the affected areas, including temporary suspension of foreclosures, penalty waivers, and forbearance or modification plans that provide more flexible mortgage payment terms.

***The Secure and Fair Enforcement for Mortgage Licensing Act (the “SAFE Act”)***

The SAFE Act and its state law equivalents require mortgage loan originators to be licensed with state agencies in the states in which they operate and/or registered with the Nationwide Mortgage Licensing System and Registry (the “Registry”). The Registry is a database established by the Conference of State Bank Supervisors and the American Association of Residential Mortgage Regulators that tracks the licensing and eligibility requirements of loan originators. Among other things, the database was established to support the licensing of mortgage loan originators by each state. As part of this licensing and registration process, loan originators who are employees of institutions other than depository institutions or certain of their subsidiaries that, in each case, are regulated by a federal banking agency, must generally be licensed under the SAFE Act guidelines enacted by each state in which they engage in loan origination activities and registered with the Registry. The entity and its employees that provide our contract underwriting services are compliant with the SAFE Act in all 50 states and the District of Columbia.

***Mortgage Insurance Cancellation***

The HPA imposes certain cancellation and termination requirements for borrower-paid private mortgage insurance and requires certain disclosures to borrowers regarding their rights under the law. The HPA also requires certain disclosures for loans covered by lender-paid private mortgage insurance. Specifically, the HPA provides that private mortgage insurance on most loans originated on or after July 29, 1999 may be cancelled at the request of the borrower once the LTV reaches 80% of the original value, provided that certain conditions are satisfied. Under HPA, private mortgage insurance must be canceled automatically once the LTV reaches 78% of the original value (or, if the loan is not current on that date, on the date that the loan becomes current).

The HPA establishes special rules for the termination of private mortgage insurance in connection with loans that are “high risk.” The HPA does not define “high risk” loans, but leaves that determination to the GSEs for loans up to the GSE conforming loan limits and to lenders for any other loan. For “high risk” loans, private mortgage insurance must be terminated on the date that the LTV is first scheduled to reach 77% of the unpaid principal balance. In no case, however, may private mortgage insurance be required beyond the midpoint of the amortization period of the loan if the borrower is current on the payments required by the terms of the mortgage.

***The Fair Credit Reporting Act (the “FCRA”)***

The FCRA imposes restrictions on the permissible use of credit report information and disclosures that must be made to consumers when information from their credit reports is used. The FCRA has been interpreted by some Federal Trade Commission staff to require mortgage insurance companies to provide “adverse action” notices to consumers in the event an application for mortgage insurance is declined or a higher premium is charged based on the use, wholly or partly, on information contained in the consumer’s credit report.

***Privacy and Information Security - Gramm-Leach-Bliley Act of 1999 (the “GLBA”) and Other Regulatory Requirements***

As part of our business, we, and certain of our subsidiaries, maintain large amounts of confidential information, including non-public personal information on consumers and our employees. We and our customers are subject to a variety of privacy and information security laws and regulations. The GLBA imposes privacy requirements on financial institutions, including obligations to protect and safeguard consumers’ nonpublic personal information and records, and limitations on the re-use of such information. The GLBA is enforced by state insurance regulators and by federal regulatory agencies. In addition, many states have enacted privacy and data security laws that impose compliance obligations beyond GLBA, including obligations to provide notification in the event that a security breach results in a reasonable belief that unauthorized persons may have obtained access to consumer nonpublic personal information.

Federal and state agencies have increased their focus on compliance obligations related to privacy, data security and cybersecurity. The CFPB, Office of the Comptroller of the Currency and non-governmental regulatory agencies, such as the Financial Industry Regulatory Authority (FINRA), have announced new compliance measures and enforcement efforts designed to monitor and regulate the protection of personal consumer data, including with respect to: the development and delivery of financial products and services; underwriting; mortgage servicing; credit reporting; digital payment systems; and vendor management. For information regarding the New York Department of Financial Services cybersecurity regulations see “—State Regulation—*Cybersecurity*.”

### ***Asset Backed Securitizations***

Our Services business provides services to issuers of and investors in asset backed securitizations and similar transactions. As a result, regulations impacting the asset backed securitization market may impact our Services business directly, or indirectly through the regulation of our Services customers.

In August 2014, the SEC adopted final rules under Regulation AB that substantially revised the offering process, disclosure and reporting requirements for offerings of ABS. The Regulation AB II rules implement several key areas of reform. Specifically, Regulation AB II introduces several new requirements related to public offerings of ABS, including the following that are significant for our Services business:

- Asset-level disclosure requirements for ABS backed by residential mortgage loans, commercial mortgage loans, automobile loans or leases, re-securitizations of ABS backed by any of those asset types, and debt securities; and
- A requirement that the transaction documents provide for the appointment of an “asset representations manager” to review the pool assets when certain trigger events occur.

In June 2015 the final credit rating agency reform rules issued by the SEC became effective. These rules for nationally recognized statistical ratings organizations (“NRSRO”) include requirements that are applicable to providers of third-party due diligence services (such as our Services business) for both publicly and privately issued Exchange Act-ABS. Among other things, the NRSRO rules require that any issuer or underwriter of registered or unregistered ABS that are to be rated by a NRSRO furnish a form filed on the SEC’s EDGAR system that describes the findings and conclusions of any third-party due diligence report obtained by the issuer or underwriter. In addition, the rule requires that a due diligence firm (such as our Services business) that is engaged to perform services in connection with any rated ABS issuance furnish a form that describes the scope of due diligence services performed and a summary of their findings and conclusions; this form is required to be posted on the ABS issuer’s password-protected website.

### ***Mortgage Insurance Tax Deduction***

In 2006, Congress enacted the private mortgage insurance tax deduction in order to foster homeownership. The deduction was enacted on a temporary basis and it expired at the end of 2011. Since 2011, the private mortgage insurance tax deduction has been extended four times, most recently for insurance premiums paid through December 31, 2017. There continue to be legislative efforts to make this tax deduction permanent, but to date this has not been enacted. It is difficult to predict whether the deduction will be extended in the future.

## **Basel III**

Over the past few decades, the Basel Committee on Banking Supervision (the “Basel Committee”) has established international benchmarks for assessing banks’ capital adequacy requirements. Included within those benchmarks are capital standards related to residential lending and securitization activity and importantly for private mortgage insurers, the treatment of mortgage insurance on those loans. These benchmarks are then interpreted and implemented via rulemaking by U.S. banking regulators.

In 1988, the Basel Committee developed the Basel Capital Accord, or “Basel I,” which set out international benchmarks for assessing banks’ capital adequacy requirements. In 2005, the Basel Committee issued an update to Basel I, known as “Basel II,” which, among other things, governs the capital treatment of mortgage insurance on loans purchased and held on balance sheet by banks in respect of their origination and securitization activities. In July 2013, the U.S. banking regulators promulgated regulations to implement significant elements of the Basel framework, referred to as the “Basel III Rules.” The Basel III Rules, among other things, revise and enhance the U.S. banking agencies’ general risk-based capital rules.

Today, the Basel III Rules assign a 50% or 100% risk weight to loans secured by one-to-four-family residential properties. Generally, residential mortgage exposures secured by a first lien on a one-to-four family residential property that are prudently underwritten and that are performing according to their original terms receive a 50% risk weighting. All other one-to-four family residential mortgage loans are assigned a 100% risk weight.

In December 2014, the Basel Committee issued a proposal for further revisions to Basel III. It proposed adjustments to the risk weights for residential mortgage exposures that take into account LTV and the borrower's ability to service a mortgage. The proposed LTV ratio did not take into consideration any credit enhancement, including private mortgage insurance. The comment period for this proposal closed in March 2015, and in December 2015, the Basel Committee released a second proposal that retained the LTV provisions of the initial draft, but not the debt servicing coverage ratios (the "2015 Proposal"). The comment period for the 2015 Proposal closed in March 2016. In March 2015, the U.S. banking regulators clarified that LTV ratios can account for credit enhancement such as private mortgage insurance in determining whether a loan is made in accordance with prudent underwriting standards for purposes of receiving the preferred 50% risk weight.

The revised, and final recommendations from the Basel Committee, which were published in December 2017, finalized risk weighting guidelines for residential mortgage exposures. These rules only recognize guarantees provided by sovereign governments (such as FHA, VA, USDA and Ginnie Mae) as off-setting the capital requirements, which means that the credit enhancement provided by third-party private mortgage insurance and the GSEs have higher risk weightings, putting loans insured by private mortgage insurance at a disadvantage to the government guaranteed products. It remains unclear whether new guidelines will be proposed or finalized in the United States in response to the most recent Basel III recommendations. If the federal regulators decide to change the rules in response to the final Basel III recommendations and introduce LTV sensitivity to the calculation of necessary capital, it would reduce or eliminate the capital benefit banks receive from insuring low down payment loans with private mortgage insurance and could adversely affect our business and business prospects.

In addition, the Basel III Rules applicable to general credit risk mitigation for banking exposures, provide that insurance companies engaged predominantly in the business of providing credit protection, such as private mortgage insurance companies, are not eligible guarantors, which could affect our business prospects.

See "Item 1A. Risk Factors—*The implementation of the Basel III guidelines may discourage the use of mortgage insurance.*"

### **Foreign Regulation**

By reason of Radian Insurance's authorization, in September 2006, to conduct insurance business through a branch in Hong Kong, we are subject to regulation by the Hong Kong Insurance Authority ("HKIA"). The HKIA's principal purpose is to supervise and regulate the insurance industry, primarily for the protection of policyholders and the stability of the industry. Hong Kong insurers are required by the Insurance Companies Ordinance to maintain minimum capital as well as an excess of assets over liabilities of not less than a required solvency margin, which is determined on the basis of a statutory formula. Foreign-owned insurers are also required to maintain assets in Hong Kong in an amount sufficient to ensure that assets will be available in Hong Kong to meet the claims of Hong Kong policyholders if the insurer should become insolvent.

### **Employees**

At December 31, 2017, we had 1,887 employees employed by Radian Group and its subsidiaries. Management considers employee relations to be good.



## Item 1A. Risk Factors.

### *Radian Guaranty may fail to maintain its eligibility status with the GSEs.*

In order to be eligible to insure loans purchased by the GSEs, mortgage insurers such as Radian Guaranty must meet the GSEs' eligibility requirements, or PMIERS, which became effective December 31, 2015. The PMIERS are comprehensive, covering virtually all aspects of the business of a private mortgage insurer, including internal risk management and quality controls, the relationship between the GSEs and the approved insurer and the approved insurer's financial condition, as well as extensive requirements related to the conduct and operations of a mortgage insurer's business. The GSEs have significant discretion under the PMIERS and may amend the PMIERS at any time. If Radian Guaranty is unable to satisfy the requirements set forth in the PMIERS, Freddie Mac and/or Fannie Mae could restrict it from conducting certain types of business with them or take actions that may include not purchasing loans insured by Radian Guaranty.

The PMIERS financial requirements currently require that a mortgage insurer's Available Assets meet or exceed its Minimum Required Assets. At December 31, 2017, Radian Guaranty was in compliance with the PMIERS financial requirements and had Available Assets under the PMIERS of approximately \$3.7 billion, which resulted in an excess or "cushion" of approximately \$450 million over its Minimum Required Assets of approximately \$3.2 billion. Radian Guaranty's ability to continue to comply with the PMIERS financial requirements could be impacted by: (i) the product mix of our NIW and factors affecting the performance of our mortgage insurance portfolio, including our level of defaults, prepayments, the losses we incur on new or existing defaults and the credit characteristics of our mortgage insurance; (ii) the amount of credit that we receive under the PMIERS financial requirements for our third-party reinsurance transactions (which is subject to periodic review by the GSEs), including the credit received for our QSR Transactions and our 2016 and 2018 Single Premium QSR Transactions; and (iii) potential updates to the PMIERS, including an increase in the capital requirements under the PMIERS financial requirements and a potential requirement to mark-to-market certain of Radian Guaranty's Available Assets. The PMIERS provide that the factors used to determine a mortgage insurer's Minimum Required Assets may be updated every two years or more frequently, as determined by the GSEs, to reflect changes in macroeconomic conditions or loan performance, and the GSEs have periodically made other changes to the PMIERS since their adoption. As further discussed below, the GSEs are currently in the process of updating the PMIERS, including, among other items, the factors used to determine a mortgage insurer's Minimum Required Assets.

Under the PMIERS financial requirements there are increased financial requirements for loans with a higher likelihood of default and/or certain credit characteristics, such as higher LTVs and lower FICO scores, as well as for loans originated after January 1, 2016 that are insured under lender-paid mortgage insurance policies not subject to automatic termination under the HPA. Therefore, if our mix of business includes more loans that are subject to these increased financial requirements, it increases the amount of Available Assets that Radian Guaranty is required to hold. Depending on the circumstances, we may limit the type and volume of business we are willing to write for certain of our products based on the increased financial requirements associated with certain loans. This could reduce the amount of NIW we write, which could reduce our revenues. During the third and fourth quarters of 2017, Radian Guaranty experienced an increase in reported delinquencies in the FEMA Designated Areas associated with hurricanes Harvey and Irma, as compared to 2016. Although, based on past experience, we believe the incremental hurricane-related defaults will cure within the next 12 months without resulting in a material number of paid claims or a material impact on our loss reserves, the temporary increase in defaults has increased our Minimum Required Assets and reduced our cushion under the PMIERS, as a result of the PMIERS requiring a higher level of Minimum Required Assets for defaults.

Compliance with the PMIERS financial requirements could impact our holding company liquidity. If additional cash from Radian Group is required to support Radian Guaranty's compliance with the PMIERS financial requirements, it will leave less liquidity to satisfy Radian Group's other obligations. Depending on the amount of liquidity that is utilized from Radian Group, we may be required (or may decide) to seek additional capital by incurring additional debt, issuing additional equity, or selling assets, which we may not be able to do on favorable terms, if at all.

In addition to the PMIERS financial requirements, the PMIERS contain requirements related to the operations of our mortgage insurance business, including extensive operational requirements in areas such as claim processing, loss mitigation, document retention, underwriting, quality control, reporting and monitoring, among others. These increased operational requirements have resulted in additional expenses and have required substantial time and effort from management and our employees, which we expect will continue.



Compliance with the PMIERS requires us to obtain the prior consent of the GSEs before taking many actions, which may include payment of dividends, entering into various intercompany agreements and commuting or reinsuring risk, among others. These restrictions could prohibit or delay Radian Guaranty from taking certain actions that would be advantageous to it or its affiliates.

Radian Guaranty received, on a confidential basis, a summary of proposed changes to the PMIERS on December 18, 2017. The GSEs have informed us that they expect updates to the PMIERS will become effective in the fourth quarter of 2018. Based on this initial summary, which remains subject to comment by the private mortgage insurance industry, it is reasonably likely that updates to the PMIERS could, among other things, result in a material increase to Radian Guaranty's capital requirements under the PMIERS. Revisions to the PMIERS could impact our NIW and our returns. Radian expects to be able to fully comply with the proposed PMIERS as of the expected effective date in late 2018.

Although we expect Radian Guaranty to retain its eligibility status with the GSEs and to continue to comply with the PMIERS financial requirements, including as they may be updated, we cannot provide assurance that this will occur. Loss of Radian Guaranty's eligibility status with the GSEs would have an immediate and material adverse impact on the franchise value of our mortgage insurance business and our future prospects, as well as a material negative impact on our future results of operations and financial condition.

***Our insurance subsidiaries are subject to comprehensive state insurance regulations and other requirements, which we may fail to satisfy.***

We and our insurance subsidiaries are subject to comprehensive, detailed regulation by the insurance regulators in the states where they are licensed to transact business. These regulations are principally designed for the protection of our insurance policyholders rather than for the benefit of investors. Insurance laws vary from state to state, but generally grant broad supervisory powers to examine insurance companies and enforce rules or exercise discretion affecting almost every significant aspect of the insurance business, including the power to revoke or restrict an insurance company's ability to write new business.

Among other matters, the state insurance regulators impose various capital requirements on our mortgage insurance subsidiaries. These include risk-to-capital ratios, other risk-based capital measures and surplus requirements that may limit the amount of insurance that our mortgage insurance subsidiaries write. Our failure to maintain adequate levels of capital, among other things, could lead to intervention by the various insurance regulatory authorities, which could materially and adversely affect our business, business prospects and financial condition.

If Radian Guaranty is not in compliance with a state's applicable Statutory RBC Requirement, it may be prohibited from writing new business in that state until it is back in compliance or it receives a waiver of, or similar relief from, the requirement. In those states that do not have a Statutory RBC Requirement, it is not clear what actions the applicable state regulators would take if a mortgage insurer fails to meet the Statutory RBC Requirement established by another state. As of December 31, 2017, Radian Guaranty was in compliance with all applicable Statutory RBC Requirements; however, if Radian Guaranty were to fail to meet the Statutory RBC Requirement in one or more states, it could be required to suspend writing business in some or all of the states in which it does business. In addition, the GSEs and our mortgage lending customers may decide not to conduct new business with Radian Guaranty (or may reduce current business levels) or impose restrictions on Radian Guaranty while it was not in compliance. The franchise value of our mortgage insurance business likely would be significantly diminished if we were prohibited from writing new business or restricted in the amount of new business we could write in one or more states.

Radian Group also may be required to provide capital support for Radian Guaranty and its affiliated insurers if additional capital is required by those subsidiaries pursuant to future changes to insurance laws and regulations. The NAIC is in the process of reviewing the minimum capital and surplus requirements for mortgage insurers and considering changes to the Model Act. While the timing and outcome of this process is not known, in the event the NAIC adopts changes to the Model Act, we expect that the capital requirements in states that adopt the new Model Act may increase as a result of the changes. Although the outcome of this process remains uncertain, we believe that if changes are made to the Model Act it will not result in financial requirements that require greater capital than the level currently required under the PMIERS financial requirements.

Our mortgage insurance subsidiaries' premium rates and policy forms are generally subject to regulation in every state in which they are licensed to transact business. These regulations are intended to protect policyholders against the adverse effects of excessive, inadequate or unfairly discriminatory rates and to encourage competition in the insurance marketplace. In most states where our insurance subsidiaries are licensed, premium rates and policy forms must be filed with the state insurance regulatory authority and, in some states, must be approved, before their use. The mortgage insurance industry has always been highly competitive with respect to pricing. In the recent past, the willingness of mortgage insurers to offer reduced pricing (whether through filed or customized rates) led to an increased demand from certain lenders for reduced rate products. We and other mortgage insurers have been subject to inquiries from the Wisconsin Department of Insurance and examination by the California Department of Insurance regarding customized insurance rates and policy form filings. In 2016, the California Department of Insurance issued guidance to the mortgage insurance industry stating that under California law, permissible discounting of mortgage insurance rates must be applied to all similarly situated customers. The current regulatory environment could increase the likelihood that additional regulatory inquiries or examinations may be initiated. The limited flexibility currently provided under existing regulatory requirements with respect to insurance rates makes it more difficult to respond to competitor pricing actions and customer demands in a timely fashion. We could lose business opportunities if we are unable to respond to competitor pricing actions and our customers' demands in a timely and acceptable manner.

***The credit performance of our insured portfolio is impacted by macroeconomic conditions and specific events that affect the ability of borrowers to pay their mortgages.***

As a seller of mortgage credit protection and mortgage and real estate products and services, our results are subject to macroeconomic conditions and specific events that impact the mortgage origination environment, the credit performance of our underlying insured assets and the business opportunities for our businesses. Many of these conditions are beyond our control, including national and regional economic conditions, housing prices, unemployment levels, interest rate changes, the availability of credit and other factors. In general, a deterioration in economic conditions increases the likelihood that borrowers will be unable to satisfy their mortgage obligations and can also adversely affect housing values, which in turn can influence the willingness of borrowers to continue to make mortgage payments despite having the financial resources to do so.

Mortgage defaults also can occur due to a variety of specific events affecting borrowers, including death or illness, divorce or other family problems, unemployment, or other events. In addition, factors impacting regional economic conditions, acts of terrorism, war or other severe conflicts, event-specific economic depressions or other catastrophic events could result in increased defaults due to the impact of such events on the ability of borrowers to satisfy their mortgage obligations and the value of affected homes.

Unfavorable macroeconomic developments and the other factors cited above could have a material negative impact on our results of operations and financial condition.

***The length of time that our mortgage insurance policies remain in force could decline and result in a decrease in our revenue.***

As of December 31, 2017, 69% of our total primary IIF consists of policies for which we expect to receive premiums in the future, typically through Monthly Premium Policies. As a result, most of our earned premiums are derived from insurance that was written in prior years. The length of time that this insurance remains in force, which we refer to as the Persistency Rate, is a significant determinant of our future revenues. A lower Persistency Rate could reduce our future revenues. The factors affecting the length of time that our insurance remains in force include:

- prevailing mortgage interest rates compared to the mortgage rates on our IIF, which affects the incentive for borrowers to refinance (i.e., lower current interest rates make it more attractive for borrowers to refinance and receive a lower interest rate);
- applicable policies for mortgage insurance cancellation, along with the current value of the homes underlying the mortgages in our IIF;
- the credit policies of lenders, which may make it more difficult for homeowners to refinance loans; and
- economic conditions that can affect a borrower's decision to pay-off a mortgage earlier than required.

If these or other factors cause a decrease in the length of time that our Monthly Premium Policies (or other policies for which we expect to receive premiums in the future) remain in force, our future revenues could be negatively impacted, which could negatively impact our results of operations and financial condition.

***Our Loss Mitigation Activity is not expected to mitigate losses to the same extent as in prior years; Loss Mitigation Activity could continue to negatively impact our customer relationships.***

As part of our claims management process we pursue opportunities to mitigate losses both before and after we receive claims, including processes to ensure claims are valid. Following the financial crisis, our Loss Mitigation Activities, such as Rescissions, Claim Denials and Claim Curtailments, increased significantly in response to the poor underwriting, servicer negligence and general non-compliance with our insurance policies that was prevalent in the period leading up to the financial crisis. These Loss Mitigation Activities materially mitigated our paid losses during this period and resulted in a significant reduction in our loss reserves. As our Legacy Portfolio has become a smaller percentage of our overall insured portfolio and mortgage underwriting and servicing have generally improved, there has been a decrease in the amount of Loss Mitigation Activity required with respect to the claims we receive, and we expect this trend to continue. As a result, our future Loss Mitigation Activity is not expected to mitigate our paid losses to the same extent as in prior years.

In addition, under the master policies developed with the GSEs in 2014, including our 2014 Master Policy for NIW after October 1, 2014, the potential for Loss Mitigation Activity generally is more limited throughout the private mortgage insurance industry, with only limited exceptions. Radian Guaranty also offers 12-month and 36-month rescission relief programs in accordance with the specified terms and conditions set forth in the 2014 Master Policy. Further, the FHFA and the GSEs have proposed revised GSE Rescission Relief Principles to, among other things, further limit the circumstances under which mortgage insurers may rescind coverage. The GSEs have requested that these principles be incorporated into new master policies which they expect to be effective for new business written in 2019. We currently are in discussions with the GSEs regarding these proposed principles, which if adopted, are likely to further reduce our ability to rescind insurance coverage in the future, potentially resulting in higher losses than would be the case under our existing master insurance policies.

Our Loss Mitigation Activities and claims paying practices have resulted in disputes with certain of our customers and in some cases, damaged our relationships with customers, resulting in a loss of business. While we have resolved many of these disputes, a risk remains that our Loss Mitigation Activities or claims paying practices could continue to have a negative impact on our relationships with customers or potential customers. Further, disputes with our customers that are not resolved could result in additional arbitration or judicial proceedings beyond those we are currently facing. See “Item 3. Legal Proceedings.” To the extent that past or future Loss Mitigation Activities or claims paying practices impact our customer relationships, our competitive position could be adversely affected, resulting in the potential loss of business and impacting our results of operations.

***Changes in the charters, business practices, or role of the GSEs in the U.S. housing market generally, could significantly impact our mortgage insurance business.***

Our current business model is highly dependent on the GSEs as the GSEs are the primary beneficiaries of most of our mortgage insurance policies. The GSEs’ federal charters generally require credit enhancement for low down payment mortgage loans (i.e., a loan amount that exceeds 80% of a home’s value) in order for such loans to be eligible for purchase by them. Lenders generally have used private mortgage insurance to satisfy this credit enhancement requirement. As a result, low down payment mortgages purchased by the GSEs generally are insured with private mortgage insurance. In order to be eligible to insure loans purchased by the GSEs, mortgage insurers such as Radian Guaranty must meet the GSEs’ eligibility requirements, or PMIERS.

The GSEs’ business practices may be impacted by their results of operations, as well as by legislative or regulatory changes. Since September 2008, the GSEs have been operating under the conservatorship of the FHFA. With respect to loans purchased by the GSEs, changes in the business practices of the GSEs, which can be implemented by the GSEs acting independently or through their conservator, the FHFA, could negatively impact our mortgage insurance business and financial performance, including changes to:

- eligibility requirements for a mortgage insurer to become and remain an approved eligible insurer for the GSEs;
- changes to underwriting standards on mortgages they purchase, including for example, the GSEs’ decision to expand credit in 2017 by purchasing a larger portion of loans with debt-to-income ratios greater than 45%;
- policies or requirements that may result in a reduction in the number of mortgages they acquire;
- the national conforming loan limit for mortgages they acquire;
- the level of mortgage insurance required, including expanding the loans that are eligible for reduced insurance coverage;

- the terms on which mortgage insurance coverage may be canceled before reaching the cancellation thresholds established by law;
- the terms required to be included in master policies for the mortgage insurance policies they acquire, including limitations on our ability to mitigate losses on insured mortgages that are in default;
- the amount of loan level price adjustments (based on risk) or guarantee fees (which may result in a higher cost to borrowers) that the GSEs charge on loans that require mortgage insurance; and
- the degree of influence that the GSEs have over a mortgage lender's selection of the mortgage insurer providing coverage.

The FHFA has called for the GSEs to transfer a meaningful portion of credit risk, known as a “credit risk transfer,” to the private sector. This mandate builds upon the goals set in each of the last three years for the GSEs to increase the role of private capital by experimenting with different forms of transactions and structures. To this end, the GSEs have transferred a portion of credit risk on over \$2.0 trillion of unpaid principal balance from the start of their credit risk transfer programs in 2013 through the end of 2017. During 2016 and 2017, we have participated in these credit risk transfer programs developed by Fannie Mae and Freddie Mac. For additional information about these programs, see “Item 1. Business—Mortgage Insurance—Mortgage Insurance Business Overview—*Mortgage Insurance Products—GSE Credit Risk Transfer.*” It is difficult to predict what other types of transactions and structures may be used. If any of the credit risk transfer transactions and structures were to displace primary loan level, standard levels of mortgage insurance, the amount of insurance we write may be reduced, which could negatively impact our franchise value, results of operations and financial condition. As a result, the impact of any credit risk transfer products and transactions implemented by the GSEs is uncertain and hard to predict.

Since the FHFA was appointed as conservator of the GSEs, there have been a wide range of legislative proposals to reform the U.S. housing finance market, including recent proposals that would repurpose the GSEs and have them compete with other secondary market participants. In addition, the Trump Administration and U.S. Treasury have stated that they are seeking to advance housing finance reform, particularly if the U.S. Congress does not take action to end the current conservatorship of the GSEs. Under current law, the FHFA has significant discretion with respect to the future state of the GSEs, including the ability to place the GSEs into receivership without further legislative action. The term of the current director of the FHFA ends in January 2019, which may increase the likelihood that the FHFA could take action to reform the GSEs.

The future structure of the residential housing finance system remains uncertain, including whether comprehensive housing reform legislation will be adopted and, if so, what form it may ultimately take. It is difficult to predict the impact of any changes on our business. See “Item 1. Business—Regulation—Federal Regulation—*Housing Finance Reform.*” Although we believe that traditional private mortgage insurance will continue to play an important role in any future housing finance structure, new federal legislation could reduce the level of private mortgage insurance coverage used by the GSEs as credit enhancement, or even eliminate the requirement, which would significantly reduce our available market, diminish the franchise value of our mortgage insurance business and materially and adversely affect our business prospects, results of operations and financial condition.

***A decrease in the volume of mortgage originations could result in fewer opportunities for us to write new insurance business.***

The amount of new business we write depends, among other things, on a steady flow of low down payment mortgages that benefit from our mortgage insurance. The volume of low down payment mortgage originations is impacted by a number of factors, including:

- restrictions on mortgage credit due to changes in lender underwriting standards, more restrictive regulatory requirements such as the required ability-to-pay determination prior to extending credit, and the significantly reduced private securitization market;
- mortgage interest rates;
- the health of the domestic economy generally, as well as specific conditions in regional and local economies;
- housing affordability;
- tax laws and policies, including the TCJA and other recent tax-related legislation, and their impact on the deductions for mortgage insurance premiums, mortgage interest payments and real estate taxes;
- population trends, including the rate of household formation;

- the rate of home price appreciation;
- government housing policy encouraging loans to first-time homebuyers; and
- the practices of the GSEs, including the extent to which the guaranty fees, loan level price adjustments (based on risk), credit underwriting guidelines and other business terms provided by the GSEs affect lenders' willingness to extend credit for low down payment mortgages.

If the overall volume of new mortgage originations declines, we could experience a reduced opportunity to write new insurance business and likely will be subject to increased competition, which could negatively affect our business prospects, results of operations and our financial condition.

***Our NIW and franchise value could decline if we lose business from significant customers.***

Our mortgage insurance business depends on our relationships with our customers. Our customers place insurance with us directly on loans that they originate and they also do business with us indirectly through purchases of loans that already have our mortgage insurance coverage. Our relationships with our customers may influence both the amount of business they do with us directly and also their willingness to continue to approve us as a mortgage insurance provider for loans that they purchase. The loss of business from significant customers could have an adverse effect on the amount of new business we are able to write, and consequently, our franchise value.

During 2017, our top 10 mortgage insurance customers (measured by NIW) were responsible for 32.4% of our primary NIW, as compared to 31.7% in 2016. Although we have taken steps to diversify our customer base, if we were to lose a significant customer, it is unlikely that the loss could be completely offset by other customers in the near-term, if at all. Some of our lending customers may decide to write business only with a limited number of mortgage insurers or only with certain mortgage insurers, based on their views with respect to an insurer's pricing, service levels, underwriting guidelines, loss mitigation practices, financial strength or other factors. Alternatively, certain other lending customers have chosen for risk management purposes to diversify and expand the number of mortgage insurers with which they do business, which has negatively affected our level of NIW and market share with those customers. Given that many of our customers currently give us a significant portion of their total mortgage insurance business, it is possible that if there is further diversification it could have a negative impact on our NIW if we are unable to mitigate the market share loss through new customers or increases in business with other customers. Further, we actively engage with our customers to ensure that we are receiving an appropriate mix of business from such customers at acceptable projected returns, and depending on the circumstances, we could take action with respect to customers (e.g., limiting the type of business we accept from them or instituting pricing changes that impact them) that could result in customers reducing the amount of business they do with us or deciding not to do business with us altogether. Any significant loss in our market share could negatively impact our mortgage insurance franchise, results of operations and financial condition.

***Our mortgage insurance business faces intense competition.***

The U.S. mortgage insurance industry is highly competitive. Our competitors include other private mortgage insurers and governmental agencies, principally the FHA and VA.

We currently compete with other private mortgage insurers that are eligible to write business for the GSEs on the basis of price, underwriting guidelines, customer relationships, reputation, perceived financial strength (including based on credit ratings) and overall service. Overall service includes services offered through our Services business that complement our mortgage insurance products. Overall service competition is based on, among other things, effective and timely delivery of products, timeliness of claims payments, timely and accurate servicing of policies, training, loss mitigation efforts and management and field service expertise.

Pricing has always been and continues to be competitive in the mortgage insurance industry, as industry participants compete for market share and customer relationships. See "Item 1. Business—Mortgage Insurance—Competition."

We monitor various competitive and economic factors while seeking to balance both profitability and market share considerations in developing our pricing and origination strategies. We have taken a disciplined approach to establishing our premium rates and writing a mix of business that we expect to produce our targeted level of returns on a blended basis and an acceptable level of NIW. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Mortgage Insurance—*NIW, IIF, RIF*." Although we believe we are well-positioned to compete effectively, our pricing strategy may not be successful. Despite our pricing actions, we may experience returns below our targeted returns and we may lose business to other competitors. There can be no assurance that pricing competition will not intensify further, which could result in a decrease in projected returns for the industry and for Radian Guaranty.



Certain of our private mortgage insurance competitors are subsidiaries of larger corporations, may have access to greater amounts of capital and financial resources than we do at a lower cost of capital (including, as a result of tax advantaged, off-shore reinsurance vehicles) and have better financial strength ratings than we have. As a result, they may be better positioned to compete outside of traditional mortgage insurance, including if the GSEs expand their use of, or pursue alternative forms of, credit enhancement. In addition, because of tax advantages associated with being off-shore, certain of our competitors have been able to achieve higher after-tax rates of return on the NIW they write compared to on-shore mortgage insurers such as Radian Guaranty, which could allow these off-shore competitors to leverage reduced pricing to gain market share, while continuing to achieve acceptable returns on NIW. The impact of the recently enacted TCJA may, in some cases, reduce the tax advantage of being off-shore, depending on the specific tax facts and circumstances for each competitor.

We also compete with governmental entities, such as the FHA and VA, that typically do not have the same capital requirements or business objectives that we and other private mortgage insurance companies have, and therefore, may have greater financial flexibility in their pricing guidelines and capacity that could put us at a competitive disadvantage. If these entities lower their pricing or alter the terms and conditions of their mortgage insurance or other credit enhancement products in furtherance of political, social or other goals rather than a profit motive, we may be unable to compete in that market effectively, which could have an adverse effect on our business, financial condition and operating results.

Beginning in 2008, the FHA, which historically had not been a significant competitor, substantially increased its share of the mortgage insurance market, including by insuring a number of loans that would meet our current underwriting guidelines, sometimes at a lower monthly cost to the borrower than a loan that carries our mortgage insurance. While the private mortgage insurance industry generally had been recapturing market share from the FHA, in January 2015, the FHA reduced its annual mortgage insurance premium by 50 basis points, which has impacted our competitiveness with respect to certain high-LTV loans to borrowers with FICO scores below 720.

The FHA may continue to maintain a strong market position and could increase its market position again in the future. Factors that could cause the FHA to remain a significant competitor include:

- governmental policy, including further decreases in the pricing of FHA insurance or changes in the terms of such insurance;
- capital constraints of the private mortgage insurance industry;
- the tightening by private mortgage insurers of underwriting guidelines based on risk concerns, including recent changes by us and other private mortgage insurers to tighten guidelines for certain loans with debt-to-income ratios greater than 45%;
- increases in the loan level price adjustments (based on risk) charged by the GSEs on loans that require mortgage insurance and changes in the amount of guarantee fees for the loans that they acquire (which may result in higher cost to borrowers); and
- the perceived operational ease of using FHA insurance compared to the products of private mortgage insurers.

Other private mortgage insurers may seek to regain market share from the FHA or other mortgage insurers by reducing pricing, which could, in turn, improve their competitive position in the industry and negatively impact our level of NIW.

We have faced increasing competition from the VA. Based on publicly available information, the VA accounted for 26% of the insurable mortgage market in 2017. We believe that the VA's market share has generally been increasing because the VA offers 100% LTV loans and charges a one-time funding fee that can be included in the loan amount with no additional monthly expense, and because of an increase in the number of borrowers that are eligible for the VA's program.

In addition, as market conditions change, alternatives to traditional private mortgage insurance may become more prevalent, which could reduce the demand for private mortgage insurance in its traditional form, including:

- potential structures commonly referred to as "investor paid mortgage insurance" in which affiliates of traditional mortgage insurers directly insure the GSEs against loss;
- lenders and other investors holding mortgages in their portfolio and self-insuring;
- lenders using pass-through vehicles that take on the risk of loss for loans ultimately sold to the GSEs;
- structured risk transfer transactions in the capital markets;
- risk sharing, risk transfer or using other risk mitigation techniques in conjunction with reduced levels of private mortgage insurance coverage; and



- lenders originating mortgages using “piggyback” structures to avoid private mortgage insurance, such as a first-lien mortgage with an 80% LTV and a second mortgage with a 10%, 15% or 20% LTV, which could become more attractive if the tax deduction for mortgage insurance premiums is not extended beyond the 2017 tax year.

Managing the competitive environment is extremely challenging given the multitude of various factors discussed above. If we do not appropriately manage the strategic decisions required in this environment, our franchise value, business prospects, results of operations and financial condition could be negatively impacted.

***Our business depends, in part, on effective and reliable loan servicing.***

We depend on third-party servicing of the loans that we insure. Dependable servicing is necessary for timely billing and effective loss mitigation opportunities for delinquent or near-delinquent loans. Changes in the servicing industry, challenging economic and market conditions or periods of economic stress and high mortgage defaults could negatively affect the ability of servicers to effectively service the loans that we insure. Further, servicers are required to comply with more burdensome requirements, procedures and standards for servicing residential mortgages than in the past, such as the CFPB’s mortgage servicing rules. While these requirements are intended to improve servicing performance, they also impose a high cost of compliance on servicers that may impact their financial condition and their operating effectiveness. If we experience a disruption in the servicing of mortgage loans covered by our insurance policies, this, in turn, could contribute to a rise in defaults and/or claims among those loans, which could have a material adverse effect on our business, financial condition and operating results.

***An extension in the period of time that a loan remains in our delinquent loan inventory may increase the severity of claims that we ultimately are required to pay.***

High levels of defaults and corresponding delays in foreclosures could delay our receipt of claims, resulting in an increase in the period of time that a loan remains in our delinquent loan inventory, and as a result, the severity of claims that we are ultimately required to pay. Following the financial crisis, the average time that it took for us to receive a claim increased. This was, in part, due to loss mitigation protocols that were established by servicers and also to a significant backlog of foreclosure proceedings in many states, and especially in those states that impose a judicial process for foreclosures. Generally, foreclosure delays do not stop the accrual of interest or affect other expenses on a loan, and unless a loan is cured during such delay, once title to the property ultimately is obtained and a claim is filed, our paid claim amount may include additional interest and expenses, increasing the severity of claims we ultimately are required to pay. While foreclosure timelines have improved in recent years, a portion of our Legacy Portfolio consists of severely delinquent loans. Further, another period of significant economic stress and a high level of defaults could once again delay claims and result in higher levels of Claim Severity. Higher levels of Claim Severity would increase our incurred losses and could negatively impact our results of operations and financial condition.

***Our success depends on our ability to assess and manage our underwriting risks; the premiums we charge may not be adequate to compensate us for our liability for losses and the amount of capital we are required to hold against our insured risks. We expect to incur future provisions for losses beyond what we have reserved for in our financial statements.***

The estimates and expectations we use to establish premium rates are based on assumptions made at the time our insurance is written. Our mortgage insurance premiums are based on, among other items, the amount of capital we are required to hold against our insured risks and our estimates of the long-term risk of claims on insured loans. Our premium rates are established based on performance models that consider a broad range of borrower, loan and property characteristics (e.g., LTV, borrower FICO score, type of loan, premium structure, loan term, coverage percentage and whether there is a deductible in front of our loss position) as well as market and economic conditions. Our assumptions may ultimately prove to be inaccurate.

If the risk underlying a mortgage loan we have insured develops more adversely than we anticipated, we generally cannot increase the premium rates on this in-force business, or cancel coverage or elect not to renew coverage, to mitigate the effects of such adverse developments. Similarly, we cannot adjust our premiums if the amount of capital we are required to hold against our insured risks increases from the amount we were required to hold at the time a policy was written (as occurred when the PMIERS financial requirements became effective and may occur again when the GSEs update the PMIERS which, as proposed, is reasonably likely to result in a material increase to Radian Guaranty's capital requirements under the PMIERS, among other things). As a result, if we are unable to compensate for or offset the increased capital requirements in other ways, the returns on our business may be lower than we assumed or expected. Our premiums earned and the associated investment income on those premiums may ultimately prove to be inadequate to compensate for the losses that we may incur and may not provide an adequate return on increased capital that may be required. As a result, our results of operations and financial condition could be negatively impacted.

Additionally, in accordance with industry practice, we do not establish reserves in our mortgage insurance business until we are notified that a borrower has failed to make at least two monthly payments when due. Because our mortgage insurance reserving does not account for the impact of future losses that we expect to incur with respect to performing (non-defaulted) loans, our obligation for ultimate losses that we expect to incur at any period end is not reflected in our financial statements, except to the extent that a premium deficiency exists. As a result, our losses can be more severe in periods of high defaults given that we generally are not permitted to establish reserves in anticipation of such defaults.

***If the estimates we use in establishing loss reserves are incorrect, we may be required to take unexpected charges to income, which could adversely affect our results of operations.***

We establish loss reserves in our mortgage insurance business to provide for the estimated cost of future claims on defaulted loans. Setting our loss reserves requires significant judgment by management with respect to the likelihood, magnitude and timing of each potential loss, including an estimate of the impact of our Loss Mitigation Activities with respect to defaulted loans. The models, assumptions and estimates we use to establish loss reserves may not prove to be accurate, especially in the event of an extended economic downturn or a period of extreme market volatility and uncertainty. Because of this, claims paid may be substantially different than our loss reserves and these reserves may be insufficient to satisfy the full amount of claims that we ultimately have to pay. Changes to our estimates could adversely impact our results of operations and financial condition.

We have a number of defaulted loans in our portfolio originated before 2009 that have been in default for an extended period of time. While these loans are generally assigned a higher loss reserve based on our belief that they are more likely to result in a claim, we also assume, based on historical trends, that a significant portion of these loans will cure or otherwise not result in a claim. Given the significant period of time that these loans have been in default, it is possible that the ultimate cure rate for these defaulted loans will be less than our current estimates of Cures for this inventory of defaults. In addition, during the third and fourth quarters of 2017, Radian Guaranty experienced an increase in reported delinquencies in the FEMA Designated Areas associated with Hurricanes Harvey and Irma. Based on past experience, we believe (and our reserve estimates reflect) that most of the hurricane-related defaults will cure within the next 12 months without resulting in a material number of paid claims. If our estimates are inadequate, we may be required to increase our reserves, which could have a material adverse effect on our results of operations and financial condition.

***Our delegated underwriting program may subject our mortgage insurance business to unanticipated claims.***

In our mortgage insurance business, we permit lenders to obtain mortgage insurance for residential mortgage loans originated and underwritten by them using Radian's pre-established underwriting guidelines. Once we accept a lender into our delegated underwriting program, we generally insure a mortgage loan originated by that lender based on our expectation that the lender has followed our specified underwriting guidelines in accordance with the endorsement. Under this program, a lender could commit us to insure a material number of loans with unacceptable risk profiles before we discover the problem and terminate that lender's delegated underwriting authority or pursue other rights that may be available to us, such as our rights to rescind coverage or deny claims.

***We face risks associated with our contract underwriting business.***

We provide third-party contract underwriting services for both our mortgage insurance and Services customers. We provide these customers with limited indemnification rights with respect to those loans that we simultaneously underwrite for both secondary market compliance and for potential mortgage insurance eligibility. In addition, in certain circumstances, we may also offer limited indemnification when we underwrite a loan only for secondary market compliance. In addition to indemnification, we typically have limited loss mitigation defenses available to us for loans that we have underwritten through our contract underwriting services. As a consequence, our results of operations could be negatively impacted if we are required to indemnify our customers for material underwriting errors in our contract underwriting services.

***The current financial strength ratings assigned to our mortgage insurance subsidiaries could weaken our competitive position.***

Radian Guaranty has been assigned a rating of Baa3 by Moody's and a rating of BBB+ by S&P. While Radian Guaranty's financial strength ratings currently are investment grade, these ratings are below the ratings assigned to certain other private mortgage insurers. We do not believe our ratings have had a material adverse effect on our relationships with existing customers. However, if financial strength ratings become a more prominent consideration for lenders, we may be competitively disadvantaged by customers choosing to do business with private mortgage insurers that have higher financial strength ratings. In addition, the current PMIERS do not include a specific ratings requirement with respect to eligibility, but if this were to change in the future, we may become subject to a ratings requirement in order to retain our eligibility status under the PMIERS.

The GSEs currently consider financial strength ratings, among other items, to determine the amount of collateral that an insurer must post when participating in the credit risk transfer transactions currently being conducted by the GSEs. As a result, the returns that we are able to achieve when participating in these transactions are dependent, in part, on our financial strength ratings. We currently use Radian Reinsurance to participate in the GSEs' credit risk transfer transactions. Radian Reinsurance has been assigned a rating of BBB+ by S&P. Market participants with higher ratings than us generally have the ability to price more aggressively, and therefore, are better positioned than us to compete in these transactions.

We believe that financial strength ratings remain a significant consideration for participants seeking to secure credit enhancement in the non-GSE mortgage market, which includes most non-qualified mortgage loans. While this market has remained limited since the financial crisis, we view this market as an area of potential future growth and our ability to participate in this market could depend on our ability to secure higher ratings for our mortgage insurance subsidiaries. In addition, if legislative or regulatory changes were to alter the current state of the housing finance industry such that the GSEs no longer operated in their current capacity, we may be forced to compete in a new marketplace in which financial strength ratings may play a greater role. If we are unable to compete effectively in the current or any future markets as a result of the financial strength ratings assigned to our mortgage insurance subsidiaries, the franchise value and future prospects for our mortgage insurance business could be negatively affected.

***Our success depends, in part, on our ability to manage risks in our investment portfolio.***

Our investment portfolio is an important source of revenue and is our primary source of claims paying resources. Although our investment portfolio consists mostly of highly-rated fixed income investments, our investment strategy is affected by general economic conditions, which may adversely affect the markets for credit and interest-rate-sensitive securities, including the extent and timing of investor participation in these markets, the level and volatility of interest rates and credit spreads and, consequently, the value of our fixed income securities, and as such, we may not achieve our investment objectives. Volatility or lack of liquidity in the markets in which we hold positions has at times reduced the market value of some of our investments, and if this worsens substantially it could have a material adverse effect on our liquidity, financial condition and results of operations.

Although in recent years our portfolio yield has been increasing, interest rates and investment yields on our investments continue to be below historical averages, which has reduced the investment income we generate. For the significant portion of our investment portfolio held by our insurance subsidiaries, to receive full capital credit under insurance regulatory requirements and under the PMIERS, we generally are limited to investing in highly-rated investments that are unlikely to increase our investment returns. Because we depend on our investments as a source of revenue, a prolonged period of lower than expected investment yields would have an adverse impact on our revenues and could potentially adversely affect our results of operations. Further, future updates to the PMIERS could impact our investment choices, which could negatively impact our investment strategy.

In addition, we structure our investment portfolio to satisfy our expected liabilities, including claim payments in our mortgage insurance business. If we underestimate our liabilities or improperly structure our investments to meet these liabilities, we could have unexpected losses resulting from the forced liquidation of investments before their maturity, which could adversely affect our results of operations.

***Radian Group's sources of liquidity may be insufficient to fund its obligations.***

Radian Group serves as the holding company for our operating subsidiaries and does not have any operations of its own. As of December 31, 2017, Radian Group had available, either directly or through unregulated subsidiaries, unrestricted cash and liquid investments of approximately \$229 million. This amount: (i) includes \$89 million deposited with the U.S. Treasury (which may be recalled by us at any time) in connection with the IRS Matter and (ii) includes certain additional cash and liquid investments that are expected to be received by Radian Group from our subsidiaries for corporate expenses and interest payments. Total liquidity, which includes our undrawn \$225 million unsecured revolving credit facility entered into in October 2017, was \$454 million as of December 31, 2017.

Radian Group's principal liquidity demands for the next 12 months are expected to include: (i) the payment of corporate expenses, including taxes; (ii) interest payments on our outstanding long-term debt; (iii) potential payments to the U.S. Treasury resulting from the IRS Matter if a compromised settlement with the IRS is reached; and (iv) the payment of dividends on our common stock. Radian Group's liquidity demands for the next 12 months could also include: (i) the repurchase of up to \$50 million of Radian Group common stock pursuant to the existing share repurchase program; (ii) capital support for Radian Guaranty and our other mortgage insurance subsidiaries; (iii) repurchases or early redemptions of portions of our long-term debt; and (iv) potential investments to support our strategy for growing our businesses.

In addition to existing available cash and marketable securities, Radian Group's principal sources of cash to fund future short-term liquidity needs include payments made to Radian Group under tax- and expense-sharing arrangements with our subsidiaries. Radian Group has expense-sharing arrangements in place with its principal operating subsidiaries that require those subsidiaries to pay their allocated share of certain holding-company-level expenses, including interest payments on most of our outstanding long-term debt. The expense-sharing arrangements between Radian Group and our insurance subsidiaries, as amended, have been approved by the Pennsylvania Insurance Department, but such approval may be modified or revoked at any time.

The Services segment has not generated sufficient cash flows to pay dividends to Radian Group. Additionally, while cash flow is expected to be sufficient to pay the Services segment's direct operating expenses, it has not been sufficient to satisfy its obligations to reimburse Radian Group for its allocated operating expense and interest expense under tax- and expense-sharing arrangements. We do not expect the Services segment will be able to bring its reimbursement obligations current for the foreseeable future. In the event the cash flow from operations of the Services segment is not adequate to fund all of its needs, Radian Group may provide additional funds to the Services segment in the form of a capital contribution or an intercompany note. Further, in light of Radian Guaranty's negative unassigned surplus related to operating losses in prior periods, we do not anticipate that Radian Guaranty will be permitted under applicable insurance laws to pay ordinary dividends to Radian Group for the foreseeable future.

In addition to our short-term liquidity needs discussed above, Radian Group's liquidity demands beyond the next 12 months are expected to include: (i) the repayment of our outstanding long-term debt; and (ii) potential additional capital contributions to our subsidiaries. We expect to meet the long-term liquidity needs of Radian Group with a combination of: (i) available cash and marketable securities; (ii) private or public issuances of debt or equity securities, which we may not be able to do on favorable terms, if at all; (iii) cash received under tax- and expense-sharing arrangements with our subsidiaries; (iv) to the extent available, dividends from our subsidiaries; and (v) any amounts that Radian Guaranty is able to successfully redeem under the Surplus Note.

As of December 31, 2017, certain of our subsidiaries have incurred NOLs that could not be carried-back and utilized on a separate company tax return basis. As a result, we are not currently obligated under our tax-sharing agreement to reimburse these subsidiaries for their separate company NOL carryforward. However, if in a future period, our consolidated NOL is fully utilized before a subsidiary has utilized its share of NOL carryforward on a separate entity basis, then Radian Group may be obligated to fund such subsidiary's share of our consolidated tax liability to the IRS. Certain subsidiaries, including Clayton, currently have NOLs on a separate entity basis that are available for future utilization. However, we do not expect to fund material obligations related to these subsidiary NOLs.

In light of Radian Group's short- and long-term needs, it is possible that our sources of liquidity could be insufficient to fund our obligations and could exceed available holding company funds. If this were to occur, we may need or otherwise may decide to increase our available liquidity by incurring additional debt, by issuing additional equity or by selling assets, any of which we may be unable to do on favorable terms, if at all.

***Our revolving credit facility contains restrictive covenants that could limit our operating flexibility. We may not have access to funding under our credit facility when we require it.***

Radian Group entered into a \$225 million unsecured revolving credit facility with a syndicate of bank lenders on October 16, 2017. Radian Group's obligations under the credit facility are guaranteed by Clayton and may in the future be guaranteed by other subsidiaries of Radian Group. As of December 31, 2017, no borrowings were outstanding under the credit facility.

The credit facility contains certain restrictive covenants that, among other things, provide certain limitations on our ability to incur additional indebtedness, make investments, create liens, transfer or dispose of assets, merge with or acquire other companies and pay dividends. The credit facility also requires us to comply with certain financial covenants and further provides that (i) Radian Group must be rated by S&P or Moody's and (ii) Radian Guaranty must remain eligible under the PMIERs to insure loans purchased by the GSEs. A failure to comply with these covenants or the other terms of the credit facility could result in an event of default, which could (i) result in the termination of the commitments by the lenders to make loans to Radian Group under the credit facility and (ii) enable the lenders to declare, subject to the terms and conditions of the credit facility, any outstanding obligations under the credit facility to be immediately due and payable.

If the commitments of the lenders are terminated or we are unable to satisfy certain covenants or representations, we may not have access to funding in a timely manner, or at all, when we require it. If funding is not available under the credit facility when we require it, our ability to continue our business practices or pursue our current strategy could be limited. If the indebtedness under the credit facility is accelerated, we may not be able to repay our debt or borrow sufficient funds to refinance it. Even if we are able to obtain new financing, it may not be on commercially reasonable terms or on terms that are acceptable to us. If there were to be an event of default under our credit facility for any reason, our cash flows, financial results or financial condition could be materially and adversely affected.

***Our reported earnings are subject to fluctuations based on changes in our trading securities and short-term investments that require us to adjust their fair market value.***

We have significant holdings of trading securities and short-term investments that we carry at fair value. Because the changes in fair value of these financial instruments are reflected on our statements of operations each period, they affect our reported earnings and can create earnings volatility. Among other factors, interest rate changes, market volatility and declines in the value of underlying collateral will impact the value of our investments, potentially resulting in unrealized losses that could negatively impact our results of operations.

***Our information technology systems may fail or become outmoded, be temporarily interrupted or otherwise cause us to be unable to meet our customers' demands.***

Our business is highly dependent on the effective operation of our information technology systems, which are vulnerable to damage or interruption from power outages, computer and telecommunications failures, computer viruses, cyber-attacks, security breaches, catastrophic events and errors in usage. Although we have disaster recovery and business continuity plans in place, we may not be able to adequately execute these plans in a timely fashion.

Additionally, our ability to meet the needs of our customers depends on our ability to keep pace with technological advances and to invest in new technology as it becomes available or otherwise upgrade our technological capabilities. Participants in the mortgage insurance industry rely on e-commerce and other technologies to provide their products and services, and our customers generally require that we provide an increasing number of our products and services electronically. Accordingly, we may not satisfy our customers' requirements if we fail to invest sufficient resources or are otherwise unable to maintain and upgrade our technological capabilities. Further, customers may choose to do business only with mortgage insurers with which they are technologically compatible and may choose to retain existing mortgage insurance providers rather than invest the time and resources to on-board new providers. As a result, technology can represent a potential barrier to signing new customers.

Because we rely on our information technology systems for many critical functions, including connecting with our customers, if such systems were to fail, experience a prolonged interruption, or become outmoded, we may experience a significant disruption in our operations and in the business we receive, which could have a material adverse effect on our business, financial condition and operating results.



In addition, we are in the process of implementing a major technology project to improve our operating systems, including a new platform for our mortgage insurance underwriting, policy administration, claims management and billing processes. The implementation of these technological improvements is complex, expensive, time consuming and, in certain respects, depends on the ability of third parties to perform their obligations in a timely manner. If we fail to timely and successfully implement the new technology systems and business processes, or if the systems do not operate as expected, it could have an adverse impact on our business, business prospects and results of operations.

***The security of our information technology systems may be compromised and confidential information, including non-public personal information that we maintain, could be improperly disclosed.***

Our information technology systems may be vulnerable to physical or electronic intrusions, computer viruses or other attacks. As part of our business, we, and certain of our subsidiaries and affiliates, maintain large amounts of confidential information, including non-public personal information on consumers and our employees. Breaches in security could result in the loss or misuse of this information, which could, in turn, result in potential regulatory actions or litigation, including material claims for damages, as well as interruption to our operations and damage to our customer relationships and reputation. While we have information security policies, controls and systems in place in order to attempt to prevent, detect and respond to unauthorized use or disclosure of confidential information, including non-public personal information, there can be no assurance that such use or disclosure will not occur. Any compromise of the security of our information technology systems, or unauthorized use or disclosure of confidential information, could subject us to liability, regulatory scrutiny and action, damage to our reputation and customer relationships and could have a material adverse effect on our business prospects, financial condition and results of operations.

***We are subject to litigation and regulatory proceedings.***

We operate in highly regulated industries that are subject to a heightened risk of litigation and regulatory proceedings. We often are a party to material litigation and also are subject to legal and regulatory claims, assertions, actions, reviews, audits, inquiries and investigations. Increased scrutiny in the current regulatory environment could lead to new regulations and practices, new interpretations of existing regulations, as well as additional regulatory proceedings. Additional lawsuits, legal and regulatory proceedings and other matters may arise in the future. The outcome of these legal and regulatory proceedings and other matters could result in adverse judgments, settlements, fines, injunctions, restitutions or other relief which could require significant expenditures or have a material adverse effect on our business prospects, results of operations and financial condition. See “Item 3. Legal Proceedings.”

***Resolution of our dispute with the IRS could adversely affect us.***

We are contesting adjustments resulting from the examination by the IRS of our 2000 through 2007 consolidated federal income tax returns. The IRS opposes the recognition of certain tax losses and deductions that were generated through our investment in a portfolio of non-economic REMIC residual interests and has proposed denying the associated tax benefits of these items. We appealed these proposed adjustments to the Internal Revenue Service Office of Appeals and made “qualified deposits” with the U.S. Treasury of \$85 million in June 2008 relating to the 2000 through 2004 tax years and \$4 million in May 2010 relating to the 2005 through 2007 tax years in order to avoid the accrual of incremental above-market-rate interest with respect to the proposed adjustments.

In September 2014, we received Notices of Deficiency covering the 2000 through 2007 tax years that assert unpaid taxes and penalties of \$157 million. The Deficiency Amount has not been reduced to reflect our NOL carryback ability. As of December 31, 2017, there also would be interest of approximately \$149 million related to these matters. Depending on the outcome, additional state income taxes, penalties and interest (estimated in the aggregate to be approximately \$37 million as of December 31, 2017) also may become due when a final resolution is reached. The Notices of Deficiency also reflected additional amounts due of \$105 million, which are primarily associated with the disallowance of the previously filed carryback of our 2008 NOL to the 2006 and 2007 tax years. We believe that the disallowance of our 2008 NOL carryback is a precautionary position by the IRS and that we will ultimately maintain the benefit of this NOL carryback claim.



On December 3, 2014, we petitioned the U.S. Tax Court (“Tax Court”) to litigate the Deficiency Amount. During 2016, we held several meetings with the IRS in an attempt to reach a compromised settlement on the issues presented in our dispute. In October 2017, the parties informed the Tax Court that they believe they have reached agreement in principle on all issues in the dispute. In November 2017, as required by law, the agreement was reported to the JCT for review. The agreement cannot be finalized until the IRS considers the views, if any, expressed by the JCT about the matter. If we are unable to complete a compromised settlement, then the ongoing litigation could take several years to resolve and may result in substantial legal expenses. We can provide no assurance regarding the outcome of any such litigation or whether a compromised settlement with the IRS will ultimately be reached. We currently believe that an adequate provision for income taxes has been made for the potential liabilities that may result from this matter. However, if the ultimate resolution of this matter produces a result that differs materially from our current expectations, there could be a material impact on our effective tax rate, results of operations and cash flows.

***Our ability to recognize benefits from our NOLs and other tax attributes may be limited.***

We have in the past generated substantial NOLs and other tax attributes that can be used to reduce our future income tax obligations, much of which has been used in 2017 and previous years. We anticipate that our remaining federal NOL carryforwards as of December 31, 2017 (which were approximately \$124.4 million) will be fully used during 2018. However, our ability to utilize our tax assets on a timely basis (i.e., to offset operating income as generated) will be adversely affected if we have an “ownership change” within the meaning of IRC Section 382. An ownership change is generally defined as a greater than 50 percentage point increase in equity ownership by “five-percent shareholders” (as that term is defined for purposes of IRC Section 382) over a rolling three-year period. While we have adopted the tax benefit preservation measures described below to protect our ability to use our NOLs and other tax assets, these measures may not prevent us from experiencing an ownership change, including as a result of the issuance of our common stock. Determining whether an “ownership change” has occurred is subject to uncertainty, both because of the complexity and ambiguity of IRC Section 382 and because of limitations on a publicly traded company’s knowledge as to the ownership of, and transactions in, its securities. Therefore, even though we currently have several measures in place to protect our NOLs (such as the Plan, the Bylaw Amendment and the Charter Amendment described below), we cannot provide any assurance that the IRS or other taxing authority will not challenge the amount of our tax attributes or claim that we have experienced an “ownership change” and attempt to reduce the benefit of our tax assets. There is no guarantee that our tax benefit preservation measures will be effective in protecting our NOLs and other tax assets.

In 2009, we adopted a Tax Benefit Preservation Plan (the “Plan”), which, as amended, was approved by our stockholders at our 2010, 2013 and 2016 annual meetings. We also adopted certain amendments to our amended and restated bylaws (the “Bylaw Amendment”) and at our 2010, 2013 and 2016 annual meetings, our stockholders approved certain amendments to our amended and restated certificate of incorporation (the “Charter Amendment”). These steps were taken to protect our ability to utilize our NOLs and other tax assets and to attempt to prevent an “ownership change” under U.S. federal income tax rules by discouraging and, in most cases, restricting certain transfers of our common stock that would: (i) create or result in a person becoming a five-percent shareholder under IRC Section 382 or (ii) increase the stock ownership of any existing five-percent shareholder under IRC Section 382. The continued effectiveness of the Plan, the Bylaw Amendment and the Charter Amendment are subject to periodic examination by Radian Group’s board of directors, including with respect to whether we have any remaining NOLs and other tax benefits that may be carried forward and whether the potential limitation on the use of the tax benefits under Section 382 remains material to the Company, and the Plan and Charter Amendment also remain subject to the reapproval of the Plan and the Charter Amendment by our stockholders every three years. We currently expect that our tax benefit preservation measures will be terminated no later than 2019 and, as a result, without the restrictions on transfer of our stock, we may be more susceptible to changes in ownership or takeover.

***The final impacts of the TCJA could be materially different from our current assessment.***

On December 22, 2017, the TCJA was signed into law. The TCJA significantly changes the U.S. tax system, and includes, among other things, a federal corporate tax rate reduction from 35% to 21%, effective January 1, 2018. Because deferred tax assets and liabilities are measured using the enacted tax rates expected to apply to taxable income in the periods in which the deferred tax assets or liabilities are expected to be realized or settled, the enactment of the TCJA resulted in a material reduction of our net deferred tax assets.

The measurement of certain of our deferred taxes was recorded provisionally, and may be adjusted within the next year. Although the decrease in the federal statutory income tax rate pursuant to the TCJA resulted in a one-time reduction in the amount at which our deferred tax asset is recorded, thereby reducing our net income and book value in the fourth quarter of 2017, the TCJA also reduces our effective income tax rate for periods beginning January 1, 2018, which we expect to increase net income and book value in future periods. Additional changes or interpretations in the current tax laws may also impact our net income and book value in future periods. The ultimate impact of the TCJA may differ from our provisional estimates due to, among other things, future guidance that may be issued, changes in our interpretation or assumptions with respect to reversal periods, the outcome of our potential settlement of the IRS Matter and future actions that we may take as a result of the new tax law, which could have a material adverse effect on our tax obligations, results of operations and financial condition.

***Legislation and administrative and regulatory changes and interpretations could impact our businesses.***

Our businesses are subject to and may be impacted by many federal and state lending, insurance and consumer laws and regulations and may be affected by changes in these laws and regulations or the way they are interpreted or applied. In particular, our businesses may be significantly impacted by the following:

- legislation, administrative or regulatory action impacting the charters or business practices of the GSEs;
- reform of the U.S. housing finance system;
- legislation and regulation impacting the FHA and its competitive position versus private mortgage insurers;
- state insurance laws and regulations that address, among other items, licensing of companies to transact business, claims handling, reinsurance requirements, premium rates, policy forms offered to customers and requirements for Risk-to-capital, minimum policyholder positions, reserves (including contingency reserves), surplus, reinsurance and payment of dividends;
- the application of state, federal or private sector programs aimed at supporting borrowers and the housing market;
- the application of RESPA, the FCRA and other laws to our businesses;
- the amendments to Regulation AB (commonly referred to as Regulation AB II) that were adopted by the SEC and introduce several new requirements related to public offerings of ABS, including public offerings of RMBS for which our Services business traditionally has provided due diligence and servicer surveillance services and new credit rating agency reform rules (the “NRSRO Rules”) adopted by the SEC that include requirements applicable to providers of third-party due diligence services, such as our Services business, for both publicly and privately issued ABS;
- the interpretation and application of the TRID rules requiring enhanced disclosures to consumers in connection with the origination of residential mortgage loans;
- new federal standards and oversight for mortgage insurers, including as a result of the recommendation of the Federal Insurance Office of the U.S. Treasury that federal standards and oversight for mortgage insurers be developed and implemented;
- the implementation of new regulations under, or the potential repeal or amendment of provisions of, the Dodd-Frank Act; and
- the implementation in the U.S. of the Basel III capital adequacy guidelines.

See “Item 1. Business—Regulation.”

Any of the items discussed above could adversely affect our results of operations, financial condition and business prospects. In addition, our businesses could be impacted by new legislation or regulations, as well as changes to existing legislation or regulations or the way they are interpreted or applied, that are not currently contemplated and which could occur at any time.

***The implementation of the Basel III guidelines may discourage the use of mortgage insurance.***

Over the past few decades, the Basel Committee on Banking Supervision (the “Basel Committee”) has established international benchmarks for assessing banks’ capital adequacy requirements. Included within those benchmarks are capital standards related to residential lending and securitization activity and importantly for private mortgage insurers, the capital treatment of mortgage insurance on those loans. These benchmarks are then interpreted and implemented via rulemaking by U.S. banking regulators. In July 2013, the U.S. banking regulators promulgated regulations to implement significant elements of the Basel framework, referred to as the “Basel III Rules.” The Basel III Rules, among other things, revise and enhance the U.S. banking agencies’ general risk-based capital rules. Today, the Basel III Rules assign a 50% or 100% risk weight to loans secured by one-to-four-family residential properties. Generally, residential mortgage exposures secured by a first lien on a one-to-four family residential property that are prudently underwritten and that are performing according to their original terms receive a 50% risk weighting. All other one-to-four family residential mortgage loans are assigned a 100% risk weight.

In December 2014, the Basel Committee issued a proposal for further revisions to Basel III. It proposed adjustments to the risk weights for residential mortgage exposures that take into account LTV and the borrower’s ability to service a mortgage. The proposed LTV ratio did not take into consideration any credit enhancement, including private mortgage insurance. The comment period for this proposal closed in March 2015, and in December 2015, the Basel Committee released a second proposal that retained the LTV provisions of the initial draft, but not the debt servicing coverage ratios (the “2015 Proposal”). The comment period for the 2015 Proposal closed in March 2016. In March 2015, the U.S. banking regulators clarified that LTV ratios can account for credit enhancement such as private mortgage insurance in determining whether a loan is made in accordance with prudent underwriting standards for purposes of receiving the preferred 50% risk weight.

The revised, and final recommendations from the Basel Committee, which were published in December 2017, finalized risk weighting guidelines for residential mortgage exposures. These rules only recognize guarantees provided by sovereign governments (such as FHA, VA, USDA and Ginnie Mae) as off-setting the capital requirements, which means that the credit enhancement provided by third-party private mortgage insurance and the GSEs have higher risk weightings, putting loans insured by private mortgage insurance at a disadvantage to the government guaranteed products. It remains unclear whether new guidelines will be proposed or finalized in the United States in response to the most recent Basel III recommendations. If the federal regulators decide to change the rules in response to the final Basel III recommendations and introduce LTV sensitivity to the calculation of necessary capital, it would reduce or eliminate the capital benefit banks receive from insuring low down payment loans with private mortgage insurance and could adversely affect our business and business prospects.

In addition, the Basel III Rules applicable to general credit risk mitigation for banking exposures provide that insurance companies engaged predominantly in the business of providing credit protection, such as private mortgage insurance companies, are not eligible guarantors, which could affect our business prospects.

***We rely on our management team and our business could be harmed if we are unable to retain qualified personnel or successfully develop and/or recruit their replacements.***

Our success depends, in part, on the skills, working relationships and continued services of our management team and other key personnel, any of whom could terminate his or her relationship with us at any time. The unexpected departure of key personnel could adversely affect the conduct of our business. In such event, we would be required to obtain other personnel to manage and operate our business. In addition, we will be required to replace the knowledge and expertise of our workforce as our workers retire. In either case, there can be no assurance that we would be able to develop or recruit suitable replacements for the departing individuals, that replacements could be hired, if necessary, on terms that are favorable to us, or that we can successfully transition such replacements in a timely manner. Failure to effectively implement our succession planning efforts and to ensure effective transfers of knowledge and smooth transitions involving members of our management team and other key personnel could adversely affect our business and results of operations. Without a properly skilled and experienced workforce, our costs, including productivity costs and costs to replace employees may increase, and this could negatively impact our earnings.

***We may make investments to grow our existing businesses, pursue new lines of business or new business initiatives, acquire other companies or engage in other strategic initiatives, each of which may result in additional risks and uncertainties.***

In support of our growth strategy, we may make strategic investments, acquisitions or pursue other strategic initiatives that expose us to additional risks and uncertainties that include, without limitation:

- the use of capital and potential diversion of other resources, such as the diversion of management’s attention from our core businesses and potential disruption of those businesses;

- the assumption of liabilities in connection with any strategic investment, including any acquired business;
- our ability to comply with additional regulatory requirements associated with new products, services, lines of business, or other business or strategic initiatives;
- our ability to successfully integrate or develop the operations of any new business initiative or acquisition;
- the possibility that we may fail to realize the anticipated benefits of an acquisition or other strategic investment or initiative, including expected synergies, cost savings, or sales or growth opportunities, within the anticipated timeframe or at all; and
- the possibility that we may fail to achieve forecasted results for a strategic investment, acquisition or other initiative that could result in lower or negative earnings contribution and/or impairment charges associated with intangible assets acquired.

***We face risks associated with our Services business.***

We expanded our business to include our Services segment through our 2014 acquisition of Clayton and our subsequent acquisitions of Red Bell and ValuAmerica. Our Services business exposes us to certain risks that may negatively affect our results of operations and financial condition, including, among others, the following:

- Our Services revenue is dependent on a limited number of large customers that represent a significant proportion of our Services total revenues. The loss or reduction of business from one or more of these significant customers could adversely affect our revenues and results of operations. In addition, Radian Guaranty does business with many of these significant customers. In the event of a dispute between a significant customer and either of our business segments, the overall customer relationship for Radian could be negatively impacted.
- While Clayton is not a defendant in litigation arising out of the financial crisis involving the issuance of RMBS in connection with which it has provided services, it has in the past, and may again in the future, receive subpoenas from various parties to provide documents and information related to such litigation, and there can be no assurance that Clayton will not be subject to future claims against it, whether in connection with such litigation or otherwise. It is possible that our exposure to potential liabilities resulting from our Services business, some of which may be material or unknown, could exceed amounts we can recover through indemnification claims.
- A significant portion of our Services engagements are transactional in nature and may be performed in connection with securitizations, loan sales, loan purchases or other transactions. Due to the transactional nature of our business, our Services segment revenues are subject to fluctuation from period to period and are difficult to predict.
- Sales of our mortgage and real estate services are influenced by the level of overall activity in the mortgage, real estate and mortgage finance markets generally, and are specifically dependent on the mortgage loan origination volumes of our customers which may fluctuate from period to period. If mortgage origination volumes decline we could experience less demand for our mortgage and real estate services.
- Red Bell is a licensed real estate brokerage and provides real estate brokerage services in all 50 states and the District of Columbia. As a licensed real estate brokerage, Red Bell receives residential real estate information from various multiple listing services (“MLS”). Red Bell receives this information, which it uses in its business to broker real estate transactions and provide valuation products and services, pursuant to the terms of agreements with the MLS providers. If these agreements were to terminate or Red Bell otherwise loses access to this information, it could negatively impact Red Bell’s ability to conduct its business.

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

None.

## **Item 2. Properties.**

At our new corporate headquarters, located at 1500 Market Street, in Philadelphia, Pennsylvania we currently lease approximately 174,000 square feet of office and storage space.

In connection with our mortgage insurance operations, we also lease office space in: Worthington, Ohio; Dayton, Ohio; Plano, Texas; St. Louis, Missouri; and Hong Kong. In addition, we lease office space for our Services operations in various cities in California, Colorado, Florida, Pennsylvania, Texas and Utah.

We currently have two co-location agreements with TierPoint that support data center space and services at their Norristown, Pennsylvania and Philadelphia, Pennsylvania locations. These agreements expire in May 2018 and March 2019, respectively. TierPoint serves as a production and disaster recovery location.

We believe our existing properties are well utilized, suitable and adequate for our present circumstances.

## **Item 3. Legal Proceedings.**

We are routinely involved in a number of legal and regulatory claims, assertions, actions, reviews, audits, inquiries and investigations by various regulatory entities involving compliance with laws or other regulations, the outcome of which are uncertain. These legal proceedings could result in adverse judgments, settlements, fines, injunctions, restitutions or other relief that could require significant expenditures or have other effects on our business. In accordance with applicable accounting standards and guidance, we establish accruals only when we determine both that it is probable that a loss has been incurred and the amount of the loss is reasonably estimable. We accrue the amount that represents our best estimate of the probable loss; however, if we can only determine a range of estimated losses, we accrue an amount within the range that, in our judgment, reflects the most likely outcome, and if none of the estimates within the range is more likely, we accrue the minimum amount of the range.

In the course of our regular review of pending legal and regulatory matters, we determine whether it is reasonably possible that a potential loss may have a material impact on our liquidity, results of operations or financial condition. If we determine such a loss is reasonably possible, we disclose information relating to such potential loss, including an estimate or range of loss or a statement that such an estimate cannot be made. On a quarterly basis, we review relevant information with respect to loss contingencies and update our accruals, disclosures and estimates of reasonably possible losses or range of losses based on such reviews. We are often unable to estimate the possible loss or range of loss until developments in such matters have provided sufficient information to support an assessment of the range of possible loss, such as quantification of a damage demand from plaintiffs, discovery from other parties and investigation of factual allegations, rulings by the court on motions or appeals, analysis by experts, and the progress of settlement negotiations. In addition, we generally make no disclosures for loss contingencies that are determined to be remote. For matters for which we disclose an estimated loss, the disclosed estimate reflects the reasonably possible loss or range of loss in excess of the amount accrued, if any.

Loss estimates are inherently subjective, based on currently available information, and are subject to management's judgment and various assumptions. Due to the inherently subjective nature of these estimates and the uncertainty and unpredictability surrounding the outcome of legal and other proceedings, actual results may differ materially from any amounts that have been accrued.

As previously disclosed, we are contesting adjustments resulting from the examination by the IRS of our 2000 through 2007 consolidated federal income tax returns. The IRS opposes the recognition of certain tax losses and deductions that were generated through our investment in a portfolio of non-economic REMIC residual interests and has proposed denying the associated tax benefits of these items. We appealed these proposed adjustments to the Internal Revenue Service Office of Appeals and made "qualified deposits" with the U.S. Treasury of \$85 million in June 2008 relating to the 2000 through 2004 tax years and \$4 million in May 2010 relating to the 2005 through 2007 tax years in order to avoid the accrual of incremental above-market-rate interest with respect to the proposed adjustments.



We attempted to reach a compromised settlement with the Internal Revenue Service Office of Appeals, but in September 2014 we received Notices of Deficiency covering the 2000 through 2007 tax years that assert unpaid taxes and penalties of \$157 million. The Deficiency Amount has not been reduced to reflect our NOL carryback ability. As of December 31, 2017, there also would be interest of approximately \$149 million related to these matters. Depending on the outcome, additional state income taxes, penalties and interest (estimated in the aggregate to be approximately \$37 million as of December 31, 2017) also may become due when a final resolution is reached. The Notices of Deficiency also reflected additional amounts due of \$105 million, which are primarily associated with the disallowance of the previously filed carryback of our 2008 NOL to the 2006 and 2007 tax years. We currently believe that the disallowance of our 2008 NOL carryback is a precautionary position by the IRS and that we will ultimately maintain the benefit of this NOL carryback claim. On December 3, 2014, we petitioned the U.S. Tax Court (“Tax Court”) to litigate the Deficiency Amount. On September 1, 2015, we received a notice that the case had been scheduled for trial. However, the parties jointly filed, and the Tax Court approved, motions for continuance in this matter to postpone the trial date. Also, in February 2016, the Tax Court approved a joint motion to consolidate for trial, briefing and opinion our case with a similar case involving MGIC Investment Corporation. During 2016, we held several meetings with the IRS in an attempt to reach a compromised settlement on the issues presented in our dispute. In October 2017, the parties informed the Tax Court that they believe they have reached agreement in principle on all issues in the dispute. In November 2017, as required by law, the agreement was reported to the JCT for review. The agreement cannot be finalized until the IRS considers the views, if any, expressed by the JCT about the matter. If we are unable to complete a compromised settlement, then the ongoing litigation could take several years to resolve and may result in substantial legal expenses. We can provide no assurance regarding the outcome of any such litigation or whether a compromised settlement with the IRS will ultimately be reached. We currently believe that an adequate provision for income taxes has been made for the potential liabilities that may result from this matter. However, if the ultimate resolution of this matter produces a result that differs materially from our current expectations, there could be a material impact on our effective tax rate, results of operations and cash flows.

On December 22, 2016, Ocwen Loan Servicing, LLC and Homeward Residential, Inc. (collectively, “Ocwen”) filed a complaint against Radian Guaranty (the “Complaint”). Ocwen has also initiated legal proceedings against several other mortgage insurers. The action filed against Radian Guaranty, titled *Ocwen, et al. v. Radian Guaranty*, is pending in the U.S. District Court for the Eastern District of Pennsylvania (the “Court”). The Complaint alleged breach of contract and bad faith claims and sought monetary damages and declaratory relief regarding certain claims handling practices on future insurance claims. On December 17, 2016, Ocwen separately filed a parallel arbitration petition against Radian Guaranty (the “Petition”) before the American Arbitration Association (“AAA”) asserting substantially the same allegations as in the Complaint (the Complaint and the Petition are collectively referred to as the “Filings”). The Filings listed 9,420 mortgage insurance certificates (“Certificates”) issued under multiple insurance policies, including Pool Insurance Policies, as subject to the dispute. On March 3, 2017, Radian Guaranty filed with the Court: (i) a motion to dismiss Ocwen’s Complaint or, in the alternative, for a more definite statement and (ii) a motion to enjoin Ocwen’s parallel arbitration. On June 5, 2017, Ocwen filed an Amended Complaint and an Amended Petition (collectively, the “Amended Filings”) with the Court and the AAA, respectively, together listing 8,870 Certificates as subject to the dispute. In December 2017 and January 2018, Ocwen and Radian Guaranty filed motions for partial summary judgment in connection with a small number of bellwether certificates selected from the Certificates subject to the Court proceedings (“Bellwether Certificates”). On February 1, 2018, the Court issued an Order and Memorandum decision granting in part and denying in part both parties’ motions for partial summary judgment, and ordering the parties to proceed to trial on certain claims regarding a portion of the Bellwether Certificates. The trial regarding a portion of the Bellwether Certificates is currently scheduled to start in April 2018. Radian Guaranty believes that Ocwen’s allegations and claims in the legal proceedings described above are without merit and legally deficient, and plans to defend these claims vigorously. We are not able to estimate a reasonably possible loss, if any, or range of loss in this matter because of the preliminary stage of the proceedings.

We also are periodically subject to reviews and audits, as well as inquiries, information-gathering requests and investigations. In connection with these matters, from time to time we receive requests and subpoenas seeking information and documents related to aspects of our business. In March 2017, Green River Capital, a subsidiary of Clayton, received a letter from the staff of the SEC stating that it is conducting an investigation captioned, “In the Matter of Certain Single Family Rental Securitizations,” and that it is requesting information from market participants. The letter requested that Green River Capital provide information regarding broker price opinions that Green River Capital provided on properties included in single family rental securitization transactions. Green River Capital is cooperating with the SEC.



The legal and regulatory matters discussed above could result in adverse judgments, settlements, fines, injunctions, restitutions or other relief that could require significant expenditures or have other effects on our business. Management believes, based on current knowledge and after consultation with counsel, that the outcome of such actions will not have a material adverse effect on our consolidated financial condition. However, the outcome of litigation and other legal and regulatory matters and proceedings is inherently uncertain, and it is possible that one or more of the matters currently pending or threatened could have an unanticipated adverse effect on our liquidity, financial condition or results of operations for any particular period.

**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 common stock is listed on the New York Stock Exchange (“NYSE”) under the symbol “RDN.” At February 23, 2018, there were 216,032,041 shares of our common stock outstanding and 49 holders of record. The following table shows the high and low sales prices of our common stock on the NYSE for the financial quarters indicated:

	2017		2016	
	High	Low	High	Low
1st Quarter . . . . .	\$ 19.87	\$ 17.13	\$ 13.35	\$ 9.29
2nd Quarter . . . . .	19.54	15.58	13.31	9.29
3rd Quarter . . . . .	18.95	15.99	14.15	9.85
4th Quarter . . . . .	22.66	18.43	18.45	12.96

In 2017 and 2016, we declared quarterly cash dividends on our common stock equal to \$0.0025 per share. We presently expect to continue to declare a regular quarterly dividend on our common stock. For information on Radian Group’s ability to pay dividends, see “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources.”

Reference is made to the information in Item 12 of this report under the caption “Equity Compensation Plans,” which is incorporated herein by this reference.

#### Issuance of Unregistered Securities

On March 21, 2016, March 22, 2016 and March 24, 2016, we issued 11,914,620; 4,673,478 and 393,690 shares of Radian Group common stock, respectively, in separately negotiated transactions with certain holders of the Convertible Senior Notes due 2017 and 2019. These issuances were made in connection with, and as partial consideration for, the purchases of aggregate principal amounts of \$30.1 million and \$288.4 million of our Convertible Senior Notes due 2017 and 2019, respectively, for cash or a combination of cash and shares of Radian Group common stock.

Over the course of two days on June 22, 2015 and June 23, 2015, in connection with, and as partial consideration for, the purchases of an aggregate principal amount of \$389.1 million of our Convertible Senior Notes due 2017, we issued an aggregate of 28,403,278 shares of Radian Group common stock to certain holders of these notes.

In all cases, the shares were issued to “qualified institutional buyers” within the meaning of Rule 144A promulgated under the Securities Act and were offered and sold in reliance on the exemption from registration afforded by Section 4(a)(2) of the Securities Act and corresponding provisions of state securities laws. See Notes 12 and 14 of Notes to Consolidated Financial Statements for additional information on the individual transactions.

#### Issuer Purchases of Equity Securities

On August 9, 2017, Radian Group’s board of directors renewed the Company’s share repurchase program that enables it to repurchase its common stock. The current authorization allows the Company to spend up to \$50 million to repurchase Radian Group common stock in the open market or in privately negotiated transactions, based on market and business conditions, stock price and other factors. Radian has established a trading plan under Rule 10b5-1 of the Exchange Act to implement the program. As of December 31, 2017, no shares had been purchased and therefore the full purchase authority of up to \$50 million remained available under this program, which expires on July 31, 2018. See Note 14 of Notes to Consolidated Financial Statements.

During the fourth quarter of 2017, we did not purchase any of our common stock.

**Item 6. Selected Financial Data.**

The information in the following table should be read in conjunction with our Consolidated Financial Statements and Notes thereto included in Item 8 and the information included in Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

<b>(In millions, except per-share amounts and ratios)</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
<b>Consolidated Statements of Operations</b>					
Net premiums earned—insurance . . . . .	\$ 932.8	\$ 921.8	\$ 915.9	\$ 844.5	\$ 781.4
Services revenue (1) . . . . .	155.1	168.9	157.2	78.0	—
Net investment income . . . . .	127.2	113.5	81.5	65.7	68.1
Net gains (losses) on investments and other financial instruments . . . . .	3.6	30.8	35.7	80.0	(106.5)
Total revenues . . . . .	1,221.6	1,238.5	1,193.3	1,072.7	749.9
Provision for losses . . . . .	135.2	202.8	198.6	246.1	562.7
Cost of services (1) . . . . .	104.6	114.2	93.7	44.7	—
Other operating expenses . . . . .	267.3	244.9	242.4	251.2	257.4
Restructuring and other exit costs . . . . .	17.3	—	—	—	—
Interest expense . . . . .	62.8	81.1	91.1	90.5	74.6
Impairment of goodwill . . . . .	184.4	—	—	—	—
Amortization and impairment of intangible assets . . . . .	27.7	13.2	13.0	8.6	—
Pretax income (loss) from continuing operations . . . . .	346.7	483.7	437.8	407.2	(173.3)
Income tax provision (benefit) . . . . .	225.6	175.4	156.3	(852.4)	(31.5)
Net income (loss) from continuing operations . . . . .	121.1	308.3	281.5	1,259.6	(141.9)
Income (loss) from discontinued operations, net of tax (2) . . . . .	—	—	5.4	(300.1)	(55.1)
Net income (loss) . . . . .	121.1	308.3	286.9	959.5	(197.0)
Diluted net income (loss) per share from continuing operations (3) . . . . .	\$ 0.55	\$ 1.37	\$ 1.20	\$ 5.44	\$ (0.85)
Diluted net income (loss) per share (3) . . . . .	\$ 0.55	\$ 1.37	\$ 1.22	\$ 4.16	\$ (1.18)
Cash dividends declared per share . . . . .	\$ 0.01	\$ 0.01	\$ 0.01	\$ 0.01	\$ 0.01
Weighted average shares outstanding-diluted (3) . . . . .	220.4	229.3	246.3	233.9	166.4
<b>Consolidated Balance Sheets</b>					
Total investments . . . . .	\$ 4,643.9	\$ 4,462.4	\$ 4,298.7	\$ 3,629.3	\$ 3,361.7
Assets held for sale . . . . .	—	—	—	1,736.4	1,768.1
Total assets . . . . .	5,900.9	5,863.2	5,642.1	6,842.3	5,606.0
Unearned premiums . . . . .	723.9	681.2	680.3	644.5	567.1
Reserve for losses and LAE . . . . .	507.6	760.3	976.4	1,560.0	2,164.4
Long-term debt . . . . .	1,027.1	1,069.5	1,219.5	1,192.3	914.3
Liabilities held for sale . . . . .	—	—	—	947.0	642.6
Stockholders’ equity . . . . .	3,000.0	2,872.3	2,496.9	2,097.1	939.6
Book value per share . . . . .	\$ 13.90	\$ 13.39	\$ 12.07	\$ 10.98	\$ 5.43

<b>(In millions, except per-share amounts and ratios)</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
<b>Selected Ratios—Mortgage Insurance (4)</b>					
Loss ratio . . . . .	14.6%	22.2%	21.7%	29.1%	72.0%
Expense ratio—net premiums earned basis . . . . .	24.7%	22.7%	23.7%	28.2%	36.6%
Risk-to-capital-Radian Guaranty only . . . . .	12.8:1	13.5:1	14.3:1	17.9:1	19.5:1
Risk-to-capital-Mortgage Insurance combined . . . . .	12.1:1	13.6:1	14.6:1	20.3:1	24.0:1
<b>Other Data—Mortgage Insurance</b>					
Primary NIW . . . . .	\$ 53,905	\$ 50,530	\$ 41,411	\$ 37,349	\$ 47,255
Direct primary IIF . . . . .	200,724	183,450	175,584	171,810	161,240
Direct primary RIF . . . . .	51,288	46,741	44,627	43,239	40,017
Persistency Rate (12 months ended) (5) . . . . .	81.1%	76.7%	78.8%	84.2%	82.1%
Persistency (quarterly, annualized) (5) . . . . .	79.4%	76.8%	81.8%	83.3%	83.5%

- (1) Primarily represents the activity of Clayton, acquired June 30, 2014.
- (2) Radian completed the sale of its former financial guaranty subsidiary, Radian Asset Assurance, to Assured on April 1, 2015, pursuant to the Radian Asset Assurance Stock Purchase Agreement. Until the April 1, 2015 sale date, the operating results of Radian Asset Assurance were classified as discontinued operations for all periods presented in our consolidated statements of operations. See Note 18 of Notes to Consolidated Financial Statements for additional information.
- (3) Diluted net income (loss) per share and average share information calculated in accordance with the accounting standard regarding earnings per share. See Note 3 of Notes to Consolidated Financial Statements.
- (4) Calculated using amounts determined under GAAP, using provision for losses to calculate the loss ratio and policy acquisition costs and other operating expenses to calculate the expense ratio, as percentages of net premiums earned—insurance.
- (5) Based on loan level detail. The Persistency Rate on a quarterly, annualized basis may be impacted by seasonality or other factors, and may not be indicative of full-year trends. See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting Our Results—Mortgage Insurance—IIF” and “Results of Operations—Mortgage Insurance—NIW, IIF, RIF” for additional information about the Persistency Rate.

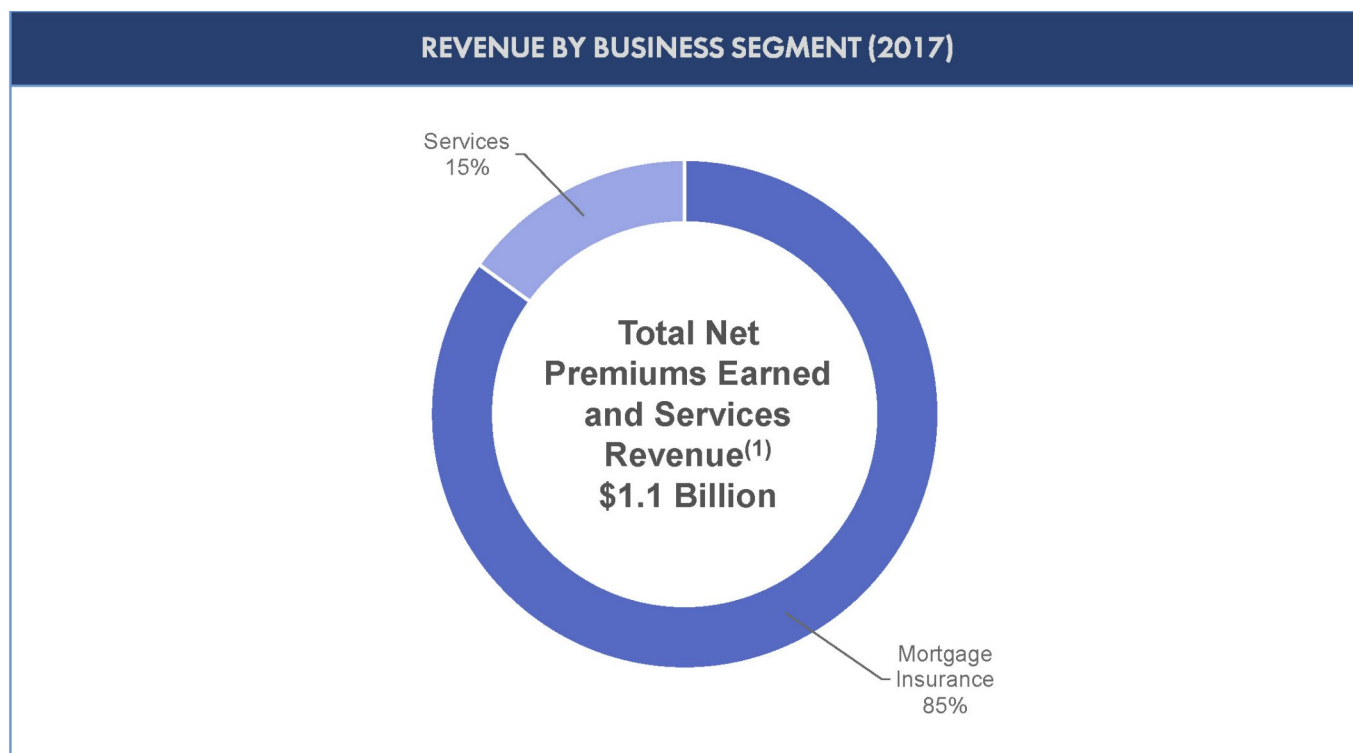
**Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.**

The following analysis of our financial condition and results of operations should be read in conjunction with our Consolidated Financial Statements and Notes thereto included in Item 8. Certain terms and acronyms used throughout this report are defined in the Glossary of Abbreviations and Acronyms included as part of this report. Some of the information included in this discussion and analysis or included elsewhere in this report, including with respect to our projections, plans and our strategy for our business, includes forward-looking statements that involve risks, uncertainties and assumptions. Our actual results and the timing of events could differ materially from those anticipated by these forward-looking statements as a result of many factors, including those discussed under “Cautionary Note Regarding Forward-Looking Statements—Safe Harbor Provisions” and in the Risk Factors detailed in Item 1A of this Annual Report on Form 10-K.

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**Overview**

We are a diversified mortgage and real estate services business with two business segments—Mortgage Insurance and Services. Our Mortgage Insurance segment provides credit-related insurance coverage, principally through private mortgage insurance, as well as other credit risk management solutions, to mortgage lending institutions nationwide. We provide our mortgage insurance products mainly through our wholly-owned subsidiary, Radian Guaranty. Our Services segment is a fee-for-service business that offers a broad array of both mortgage and real estate services to market participants across the mortgage and real estate value chain, as further detailed in “Results of Operations—Services.” These services are provided primarily through Clayton and its subsidiaries, including Green River Capital, Red Bell and ValuAmerica.



- (1) Includes net premiums earned and services revenue on a segment basis, and excludes net investment income, net gain on investments and other financial instruments and other income.

#### ***Tax Cuts and Jobs Act***

On December 22, 2017, the TCJA was signed into law. The TCJA significantly changes the U.S. tax system, and includes, among other things, a reduction of the federal corporate tax rate from 35% to 21%, effective January 1, 2018. Because deferred tax assets and liabilities are measured using the enacted tax rates that are expected to apply to taxable income in the periods in which the deferred tax assets or liabilities are expected to be realized or settled, the enactment of the TCJA resulted in a material reduction of our net deferred tax assets.

For periods beginning January 1, 2018, we expect the TCJA, excluding the impact of Discrete Items, to have a significant favorable impact on the Company's net income, diluted earnings per share and cash flows, as compared to the tax laws in effect in 2017, primarily due to the reduction in the federal corporate tax rate from 35% to 21%. We are continuing to assess the potential effects of the TCJA on our future results. See "Item 1A. Risk Factors—*The final impacts of the TCJA could be materially different from our current assessment,*" "Results of Operations—Consolidated—*Income Tax Provision*" and Note 10 of Notes to Consolidated Financial Statements for additional information on the TCJA.



The following chart summarizes certain provisions of the TCJA and their impact on Radian.

<b>RECOGNIZED AT DECEMBER 31, 2017 (1)</b>
<ul style="list-style-type: none"><li>• Reduction of net deferred tax assets of \$102.6 million due to lower statutory tax rate, resulting in an increased tax provision</li></ul>
<b>EXPECTED FUTURE IMPACT (2)</b>
<ul style="list-style-type: none"><li>• Significant expected reduction in our annualized effective tax rate and future cash tax payments due to reduction in statutory federal tax rate from 35% to 21%, effective January 1, 2018 (3)</li><li>• Anticipated material reduction in cash tax payments in 2018 due to the repeal of the corporate alternative minimum tax</li><li>• Reduction in deductibility of executive compensation</li><li>• Potential impacts of state tax changes that could be prompted in response to the TCJA</li><li>• Potential adjustments to our provisional amounts recorded in accordance with SAB 118</li></ul>

- (1) Represents the remeasurement, upon enactment of the TCJA, of our net deferred tax assets at the enacted tax rates that are expected to apply to taxable income in the periods in which the deferred tax assets or liabilities are expected to be realized or settled.
- (2) Represents expected impacts beginning January 1, 2018.
- (3) Before considering the impact of Discrete Items.

Notwithstanding our current expectations, future guidance that may be issued or changes in policy or interpretations of the TCJA could have a positive or negative impact on our financial performance depending on how the changes would influence the economy, including business and consumer sentiment and the key factors influencing our performance.

#### ***Operating Environment and Business Strategy***

*Operating Environment.* As a seller of mortgage credit protection and other credit risk management solutions, as well as mortgage and real estate services, our results are subject to macroeconomic conditions and specific events that impact the mortgage origination environment, the credit performance of our underlying insured assets and the business opportunities for our Services segment.

The overall improvements in the U.S. economy and the housing finance market since 2008 led to increased home purchase activity and, due to the low interest rate environment, a high level of refinance transactions. However, as rates recently have been increasing, refinance activity has declined. In 2017, an increase in home purchase transactions and a decrease in refinance transactions resulted in a smaller total mortgage origination market in 2017 as compared to 2016. Mortgage insurance penetration in the insurable mortgage market is generally three to five times higher for purchase originations than for refinancings. We believe that the mortgage insurance market for 2017 was slightly larger than 2016, as a result of this meaningfully higher penetration for purchase originations. We have recently observed that the increase in home purchase activity has resulted in home price appreciation and a declining inventory of homes available for sale, which may limit the pace of future industry growth until additional homes become available.

Lending laws and regulations that were enacted in response to the financial crisis of 2007-2008 resulted in increased regulation and regulatory scrutiny and a more restrictive credit environment that has limited the growth of the mortgage industry. Although this more restrictive credit environment resulted in overall improvement in credit quality, it also made it more challenging for many first-time home buyers to finance a home and has limited the number of loans available for private mortgage insurance. In response to first-time home buyer demand and affordability considerations, lenders and the GSEs recently have introduced new mortgage lending products, such as mortgage lending products that accommodate higher LTVs, including LTVs greater than 95%, as well as higher debt-to-income ratios. As a result, the private mortgage insurance industry, including Radian Guaranty, is experiencing a shift in the mix of mortgage lending products toward higher LTVs and higher debt-to-income ratios. See "Results of Operations—Mortgage Insurance—*NIW, IIF, RIF*" for additional information regarding our portfolio mix and the mortgage industry.

## U.S. HOUSING MARKET

### Credit and Regulatory Environment

#### Current U.S. macroeconomic factors support strong housing market

- Nationwide home prices remain affordable by historical standards
- Personal income continues to grow while debt burden has moderated
- Unemployment has been declining since 2010 and is at its lowest level in over 10 years



#### Credit standards remain conservative by historical standards

- Current credit standards are significantly tighter than those observed throughout the 2000s prior to the financial crisis
- FICO scores for borrowers utilizing private mortgage insurance have increased, with current average borrower scores at 740+
- Qualified Mortgage (QM) (as defined by the CFPB) and PMIERS requirements have significantly reduced loan originations with certain risky features
  - Full documentation is standard with very limited acceptance of alternative documentation loans, such as stated income loans
  - Adjustable rate mortgages are now qualified at the fully-indexed rate, reducing the risk of default from rate resets
  - Interest-only loans and loans with negative amortization features are not considered Qualified Mortgages
- Significant reduction in amount and types of risk layering (i.e., combining multiple higher-risk attributes within the same loan)
- More conservative appraisal regulations have strengthened appraiser independence from lenders



#### More stringent regulatory environment and improved servicing standards

- More stringent regulatory environment with a focus on the ability of a borrower to pay and improved underwriting quality
- Increased servicing standards with an industry focus on preventing foreclosures



Notwithstanding the LTVs and debt-to-income trends referenced above, loan originations since 2008 consist primarily of high credit quality loans with significantly better credit performance than the loans originated during 2008 and prior periods. As of December 31, 2017, our portfolio of business written subsequent to 2008, including HARP refinancings, represented approximately 92% of our total primary RIF. The high volume of insurance that we have written on high credit quality loans has led to an improved portfolio mix and, together with favorable credit trends, has had a significant positive impact on our results of operations.

During the third quarter of 2017, Hurricanes Harvey and Irma caused extensive property damage to areas of Texas, Florida and Georgia, as well as other general disruptions including power outages and flooding. At December 31, 2017, our total primary mortgage insurance exposure to mortgages in counties affected by these storms and subsequently designated as FEMA Designated Areas is approximately \$4.6 billion of RIF on approximately \$17.4 billion of IIF. This exposure represents approximately 9% of our primary mortgage insurance RIF as of December 31, 2017. Although the mortgage insurance we write protects the lenders from a portion of losses resulting from loan defaults, it does not provide protection against property loss or physical damage. Our Master Policies contain an exclusion against physical damage, including damage caused by floods or other natural disasters. Depending on the policy form and circumstances, we may, among other things, deduct the cost to repair or remedy physical damage above a de minimis amount from a claim payment and/or, under certain circumstances, deny a claim where (i) the property underlying a mortgage in default is subject to unrestored physical damage or (ii) the physical damage is deemed to be the principal cause of default.

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

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As expected, Radian Guaranty has experienced a recent increase in reported delinquencies in these hurricane-affected areas in the third and fourth quarters of 2017. We believe that these hurricane-related delinquencies have reached their peak and, based on past experience, expect that most of these defaults will cure within the next 12 months. Although the number of these defaults that will ultimately result in paid claims is uncertain, we do not expect the incremental defaults to result in a material number of paid claims, given the limitations on our coverage related to property damage. Radian has been working with loan servicers to obtain information about forbearance plans and the status of the properties. The future reserve impact of these defaults may be affected by various factors, including the pace of economic recovery in the FEMA Designated Areas.

Although, as discussed above, we believe that most of the incremental hurricane-related defaults will cure within the next 12 months without resulting in a material number of paid claims or a material impact on our loss reserves, because the PMIERS require a higher level of Minimum Required Assets with respect to defaults notwithstanding our claim expectations, the temporary increase in defaults has increased our Minimum Required Assets and reduced our cushion under the PMIERS. Our Minimum Required Assets from hurricane-affected areas increased by approximately \$100 million as of December 31, 2017 as compared to September 30, 2017. This expected temporary impact has not affected Radian Guaranty's compliance with the PMIERS financial requirements. See "Liquidity and Capital Resources—*Radian Group—Short-Term Liquidity Needs—Capital Support for Subsidiaries*" for additional information on PMIERS.

As part of our comprehensive relief program initiated in response to these hurricanes, we are supporting the disaster relief policies issued by the GSEs that provide various forms of assistance to accommodate the financial needs of homeowners in the affected areas, including temporary suspension of foreclosures, penalty waivers, and forbearance or modification plans that provide more flexible mortgage payment terms.


For all areas other than the FEMA Designated Areas associated with Hurricanes Harvey and Irma, the number of total new primary mortgage insurance defaults in our insured portfolio decreased by 7.2% for 2017, as compared to 2016. Similarly, for all areas other than the FEMA Designated Areas associated with Hurricanes Harvey and Irma, the primary default rate for the portfolio declined from 2.9% at December 31, 2016 to 2.2% at December 31, 2017. See "Results of Operations—Mortgage Insurance—*NIW, IIF, RIF—Provision for Losses*" for more information on defaults.

In our mortgage insurance business, our competitors include other private mortgage insurers and governmental agencies, principally the FHA and the VA. We currently compete with other private mortgage insurers that are eligible to write business for the GSEs on the basis of price, underwriting guidelines, overall service, customer relationships, perceived financial strength (including based on comparative credit ratings) and reputation. Overall service includes services offered through our Services business that complement our mortgage insurance products. We compete with the FHA and VA on the basis of loan limits, pricing, credit guidelines, terms of our insurance policies (including certain assumability features in FHA and VA loans) and loss mitigation practices. Although the FHA's reduction of its annual mortgage insurance premiums in January 2015, combined with our premium changes in April 2016 to increase pricing for borrowers with lower FICO scores, has negatively impacted our ability to compete with the FHA on certain high-LTV loans to borrowers with FICO scores below 720, we believe that our pricing changes made during the first half of 2016 have enabled us to compete more effectively with the FHA on certain high-LTV loans to borrowers with FICO scores above 720.

Pricing has always been and continues to be competitive in the mortgage insurance industry, as industry participants compete for market share and customer relationships. As a result of this competitive environment, recent pricing trends have included: (i) the continued use of a spectrum of filed rates to allow for pricing based on more granular loan and borrower attributes (commonly referred to as “black-box” pricing); (ii) the use of customized (often discounted) rates on lender-paid, Single Premium Policies and to a limited extent, on borrower-paid Monthly Premium Policies, including in response to requests for pricing bids by certain lenders; and (iii) reductions by certain of our competitors of their standard rates for lender-paid Single Premium Policies. In the first half of 2016, there were wide-spread pricing changes made by private mortgage insurers. Since then, pricing throughout the industry has been relatively stable with respect to borrower-paid Monthly Premium Policies, although we believe that certain of our competitors recently have increased the frequency with which they are offering discounted, borrower-paid Monthly Premium Policies to lenders on a selective basis (i.e., not applying the discount to all similarly situated lenders). We remain disciplined in evaluating this trend and will make strategic pricing decisions going forward based on, among other factors, our perspective regarding the most appropriate path for achieving our overall objectives regarding growing the long term economic value of our mortgage insurance portfolio. In addition, we note that in 2016, the California Department of Insurance issued guidance to the mortgage insurance industry stating that any approved discounting of a mortgage insurer's rates must be provided to all similarly situated customers of the mortgage insurer. This guidance follows a 2015 industry-wide inquiry by the Office of the Commissioner of Insurance of Wisconsin regarding rebating practices. Although the ongoing impact of this regulatory oversight is uncertain, it is possible that this attention to pricing practices will discourage mortgage insurers from engaging in the current practice of selective discounting of rates (i.e., not applying the discount to all similarly situated lenders). See “Item 1A. Risk Factors—*Our insurance subsidiaries are subject to comprehensive state insurance regulations and other requirements, which we may fail to satisfy.*”

In order to be eligible to insure loans purchased by the GSEs, mortgage insurers such as Radian Guaranty must meet the GSEs' eligibility requirements, or PMIERS. The PMIERS are comprehensive, covering virtually all aspects of the business and operations of a private mortgage insurer, including internal risk management and quality controls, the relationship between the GSEs and the approved insurer and the approved insurer's financial condition. In addition, the GSEs have a broad range of consent rights under the PMIERS, and require private mortgage insurers to obtain the prior consent of the GSEs before taking certain actions, which may include paying dividends, entering into various intercompany agreements and commuting or reinsuring risk, among others. Radian Guaranty currently is an approved mortgage insurer under the PMIERS and is in compliance with the PMIERS financial requirements.

The GSEs have significant discretion under the PMIERS and may amend the PMIERS at any time. Radian Guaranty received, on a confidential basis, a summary of proposed changes to the PMIERS on December 18, 2017. Based on this initial summary, which remains subject to comment by the private mortgage insurance industry, it is reasonably likely that updates to the PMIERS could, among other things, result in a material increase to Radian Guaranty's capital requirements under the PMIERS financial requirements. Radian expects to be able to fully comply with the proposed PMIERS as of the expected effective date in late 2018, without a need to take further actions beyond those actions taken to date and without giving effect to the Surplus Note currently outstanding. See “Liquidity and Capital Resources—*Radian Group—Short-Term Liquidity Needs—Capital Support for Subsidiaries*” and Note 1 of Notes to Consolidated Financial Statements for additional information.

<b>CURRENT PMIERS</b>	
<p style="text-align: center;"><b>PMIERS Imposes a Robust Risk-based Capital Framework</b></p> <div style="text-align: center;">  </div> <p style="text-align: center;"><b>Provides a level capital playing field for the mortgage insurance industry, contributing to risk and pricing discipline</b></p> <hr/> <ul style="list-style-type: none"> <li>• Intended to ensure that MI companies maintain adequate liquidity and claims-paying resources to withstand a significant stress scenario</li> <li>• Risk-based capital factors are applied at a loan level to total net risk in force (RIF)</li> <li>• Total risk-based capital represents projected claims on an insurer’s book of business over remaining life of existing policies in a significant stress scenario</li> </ul>	<p style="text-align: center;"><b>PMIERS Includes Risk-based, Loan-level Criteria</b></p> <p><b>Loan-level characteristics that determine capital factors applied to Performing Loans:</b></p> <ul style="list-style-type: none"> <li>• Original LTV</li> <li>• Original Credit Score (FICO)<sup>(1)</sup></li> <li>• Vintage: 4 groups [Pre-2005; 2005 - 2008; 2009 - June 2012; Post June 2012]</li> <li>• Seasoning Factors applied to post June 2012 loans after 2 years<sup>(2)</sup></li> <li>• HARP refinance loans utilize specific capital factors based on LTV and FICO</li> </ul> <p><b>Loan-level characteristics that determine capital factors applied to Defaulted Loans:</b></p> <ul style="list-style-type: none"> <li>• Prior to a claim filing = 55% to 85% of RIF based on number of missed monthly payments</li> <li>• After a claim filing = 106% of RIF</li> </ul>

- (1) For the PMIERS, in circumstances where there is more than one borrower, the lowest of the borrowers’ FICO scores is used.
- (2) Seasoning factors are designed to adjust claim rate estimates for an expected loss pattern based on origination vintage.

While the overall improvements in the U.S. economy generally and, more specifically, the housing finance market have positively impacted the performance of our Mortgage Insurance business, this has not resulted in the business and growth opportunities for certain of our Services segment business lines that we had anticipated and forecasted. Among other things, highly competitive conditions and decreased demand for certain services have limited the volume of business for some of our Services segment business lines, as further discussed below. Additionally, the continued lack of a meaningful securitization market has significantly limited the growth opportunities for our Services segment.

*Business Strategy.* Radian is focused on a number of strategic objectives, as described in “Radian’s Long-Term Strategic Objectives” in “Item 1. Business—General.” In our mortgage insurance business, we monitor competitive and economic factors while seeking to balance both profitability and market share considerations in developing our strategies. We have taken a disciplined, risk-based approach to establishing our premium rates and writing a mix of business that we expect to produce our targeted level of returns on a blended basis and an acceptable level of NIW. See “—Results of Operations—Mortgage Insurance—NIW, IIF, RIF.”

Our growth strategy includes leveraging our core expertise in mortgage credit risk management and expanding our presence in the mortgage finance industry. During 2016 and 2017, we participated in Front-end credit risk transfer programs developed by Fannie Mae and Freddie Mac as part of their initiative to increase the role of private capital in the mortgage market. We expect to continue to participate in these and other similar programs in the future, subject to availability and our evaluation of risk-adjusted returns. We participate in these Front-end programs as part of a panel of mortgage insurance company affiliates, subject to pre-established credit parameters. These transactions provide the GSEs with credit risk coverage on a Flow Basis that is incremental to primary mortgage insurance. In these transactions the credit risk coverage becomes effective as a loan is acquired by the GSE. During 2017, we also participated in similar credit risk transfer programs covering existing loans in the GSEs’ portfolios (i.e., Back-end). As of December 31, 2017, our total RIF under the Front-end and Back-end credit risk transfer transactions was \$100.4 million.



We will only experience claims under these Front-end and Back-end credit risk transfer transactions if the borrower's equity, any existing primary mortgage insurance and the GSEs' retained risk are depleted. The GSEs retain the first losses on these credit risk transfer transactions, ranging from 35 to 50 basis points. Radian would then be responsible to cover the next layer of losses, which ranges in size from approximately 200 to 300 basis points.

Notwithstanding the improvement in the U.S. economy and the housing and finance markets, in 2017 our Services business underperformed relative to our expectations, as described further below. Therefore, to support our strategic objectives and based on our strategic review of the Services business lines, we committed to a restructuring plan for our Services business in order to make changes that we believe are necessary to reposition this business for sustained profitability.

The financial results in some of our Services business lines have been negatively impacted by, among other things: (i) competition, including price competition and development of alternative services that compete with the services we offer; (ii) a decrease in the demand for certain services as our customers are relying on internal resources rather than outsourcing to us; (iii) lower than expected customer acceptance for certain of our services; and (iv) delays in the realization of efficiencies and margin improvements associated with technology initiatives. Our Chief Executive Officer joined the Company in March 2017 and initiated a strategic review of this business. Based on this strategic review, in the second quarter of 2017, we made several decisions with respect to business strategy for this segment in order to reposition the Services business to drive future growth and profitability. We determined to discontinue certain initiatives and rationalize expenses for this business while focusing on our core services that have higher growth potential and are expected to produce more predictable and recurring fee-based revenue streams over time, and that better align with our market expertise and the needs of our customers. Our strategic decisions made in the second quarter of 2017, combined with the decrease in projected volumes based on current market trends, resulted in a significant reduction in expected future net cash flows for the Services business compared to our previous projections. As a result, we recorded an impairment of the goodwill and other intangible assets related to the Services segment in the second quarter of 2017. These charges were primarily due to the changes in expectations regarding the future growth of certain Services business lines resulting from changes in our business strategy, combined with market trends observed during the second quarter of 2017 that we expect to persist. See Note 7 of Notes to Consolidated Financial Statements for additional information.

Based on our strategic assessment of the Services business, on September 5, 2017, the Company committed to a plan to restructure the Services business and incurred pretax restructuring charges of \$17.3 million in 2017, including \$6.8 million in cash payments. Additional pretax restructuring charges of approximately \$3.8 million, including approximately \$3.0 million in cash, are expected to be recognized within the next 12 months. The total restructuring charges of approximately \$21.1 million are expected to consist of: (i) asset impairment charges (including the loss recognized on the sale of our EuroRisk business) of approximately \$11.3 million; (ii) employee severance and benefit costs of approximately \$7.1 million; (iii) facility and lease termination costs of approximately \$1.8 million; and (iv) contract termination and other restructuring costs of approximately \$0.9 million.

As we reposition our Services business, we plan to continue to focus on using the services provided by our Services segment to complement our Mortgage Insurance business. This strategy is designed to satisfy demand in the market, grow our fee-based revenues, strengthen our existing mortgage insurance customer relationships, attract new customers and differentiate us from other mortgage insurance companies. Our current capabilities are illustrated by the graphic, "Product and Service Offerings" in "Item 1. Business—General."

### ***Other 2017 Developments***

*Capital and Liquidity Actions.* During 2017, we completed a series of transactions that strengthened our capital and liquidity position and improved our financial flexibility. This series of capital and liquidity actions included:

- the issuance of \$450 million aggregate principal amount of Senior Notes due 2024;
- tender offers resulting in the purchase of aggregate principal amounts of \$141.4 million, \$115.9 million and \$152.3 million of our Senior Notes due 2019, 2020 and 2021, respectively, for a total of \$450.8 million in cash;
- the purchase of an aggregate principal amount of \$21.6 million of our outstanding Convertible Senior Notes due 2017 for \$31.6 million in cash;
- the settlement of our conversion obligations for the remaining aggregate principal amount of our Convertible Senior Notes due 2019 for \$110.1 million in cash, resulting in an aggregate decrease as of the settlement date of 6.4 million diluted shares for the purpose of determining diluted net income per share; and
- the entry into a three-year, \$225 million unsecured revolving credit facility.



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The purchases of our Senior Notes due 2019, 2020 and 2021 pursuant to the tender offers, together with the purchases of our Convertible Senior Notes due 2017 and the settlement of our remaining Convertible Senior Notes due 2019, resulted in an aggregate pretax charge of \$51.5 million during 2017, recorded as a loss on induced conversion and debt extinguishment. The combination of these transactions is estimated to reduce our future annual cash interest payments by approximately \$5.8 million and increased the weighted-average maturity of our senior notes by nearly two years. See "Liquidity and Capital Resources—*Radian Group—Short-Term Liquidity Needs*" and Note 12 of Notes to Consolidated Financial Statements for additional information about these transactions.

Radian Group entered into its \$225 million unsecured revolving credit facility with a syndicate of bank lenders on October 16, 2017. Borrowings under the credit facility may be used for working capital and general corporate purposes, including, without limitation, capital contributions to Radian Group's insurance and reinsurance subsidiaries as well as growth initiatives. At December 31, 2017, no borrowings were outstanding under this credit facility. See Note 12 of Notes to Consolidated Financial Statements for additional information.

On August 9, 2017, Radian Group's board of directors renewed its share repurchase program and authorized the Company to spend up to \$50 million to repurchase Radian Group common stock in the open market or in privately negotiated transactions, based on market and business conditions, stock price and other factors. As of December 31, 2017, the full purchase authority of up to \$50 million remained available under this program, which expires on July 31, 2018. See Note 14 of Notes to Consolidated Financial Statements for additional details.

*Restructuring and other exit costs.* As discussed above, we incurred pretax restructuring charges of \$17.3 million in 2017. Additional pretax restructuring charges of approximately \$3.8 million are expected to be recognized within the next 12 months. See Notes 1 and 7 of Notes to Consolidated Financial Statements for additional information.

*Impairment of Goodwill and Other Intangible Assets.* As discussed above, during the second quarter of 2017, we recorded a goodwill impairment charge of \$184.4 million, as well as an impairment charge for other intangible assets of \$15.8 million, in each case related to our Services segment. As of December 31, 2017 the remaining balances of goodwill and other intangible assets reported in our consolidated balance sheet were \$10.9 million and \$53.3 million, respectively. See Note 7 of Notes to Consolidated Financial Statements for additional information.

*Reinsurance.* During 2017, we took actions with respect to our reinsurance program to effectively manage our capital position in a cost-efficient manner, improve our return on capital, proactively manage the retained mix of single-premium business in our mortgage insurance portfolio and strengthen Radian Guaranty's financial position under PMIERS.

- In October 2017, in anticipation of the expiration of the 2016 Single Premium QSR Transaction, we entered into the 2018 Single Premium QSR Transaction with a panel of third-party reinsurers. Under the terms of the 2018 Single Premium QSR Transaction, we will cede 65% of our Single Premium NIW during 2018 and 2019.
- Effective December 31, 2017, we increased the amount of risk ceded under the 2016 Single Premium QSR Transaction by amending the terms of the transaction to increase the amount of ceded risk on performing loans under the agreement from 35% to 65% for the 2015 through 2017 vintages. This amendment increases the amount of risk ceded as of its effective date, including for the purposes of calculating any future ceding commissions and profit commissions that Radian Guaranty will earn. See "Liquidity and Capital Resources—*Radian Group—Short-Term Liquidity Needs*" for more information, including the impact of the 2016 Single Premium QSR Transaction amendment on our PMIERS financial position.

See Note 8 of Notes to Consolidated Financial Statements and "Results of Operations—Mortgage Insurance—*Net Premiums Written and Earned*" for additional information about our reinsurance transactions.

## Key Factors Affecting Our Results

### *Mortgage Insurance*

Our Mortgage Insurance segment provides credit-related insurance coverage, principally through private mortgage insurance, as well as other credit risk management solutions, to mortgage lending institutions and investors nationwide. The chart below highlights certain key drivers affecting our Mortgage Insurance revenue. The following sections discuss these revenue drivers, as well as other key factors affecting our results.

REVENUE DRIVERS
<ul style="list-style-type: none"><li>• IIF</li><li>• Persistency Rate</li><li>• Premium rates and mix of business</li><li>• Size of mortgage origination market and market demand for low down payment loans</li><li>• Level of mortgage originations for purchase transactions</li><li>• Penetration percentage of private mortgage insurance in overall mortgage market and legislative, regulatory and administrative changes impacting the demand for private mortgage insurance</li><li>• Radian's market share of the private mortgage insurance market</li><li>• The level of reinsurance we cede to third parties</li><li>• Levels of GSE credit risk transfer</li></ul>

- *IIF; Persistency Rate; Mix of Business.* Our IIF is one of the primary drivers of our future premiums that will be earned over time. Based on the composition of our insurance portfolio, with Monthly Premium Policies comprising a larger proportion of our total portfolio than Single Premium Policies, an increase or decrease in IIF generally has a corresponding impact on premiums earned. Cancellations of our insurance policies as a result of prepayments and other reductions of IIF, such as Rescissions of coverage and claims paid, generally have a negative effect on premiums earned. See “Results of Operations—Mortgage Insurance—*NIW, IIF, RIF*” for more information about the levels and characteristics of our NIW, IIF and RIF.

The ultimate profitability of our Mortgage Insurance business is affected by the impact of mortgage prepayment speeds on the mix of business we write. The measure for assessing the impact of policy cancellations on our IIF is our Persistency Rate, defined as the percentage of IIF that remains in force over a period of time. Assuming all other factors remain constant, over the life of the policies prepayment speeds have an inverse impact on IIF and the expected revenue from our Monthly Premium Policies. Slower loan prepayment speeds, demonstrated by a higher Persistency Rate, result in IIF remaining in place, providing increased revenue from Monthly Premium Policies over time as premium payments continue and we recover more of our policy acquisition costs. Earlier than anticipated loan prepayments, demonstrated by a lower Persistency Rate, reduce IIF and the revenue from our Monthly Premium Policies. Prepayment speeds may be affected by changes in interest rates, among other factors. An increasing interest rate environment generally will reduce refinancing activity and result in lower prepayments, whereas a declining interest rate environment generally will increase the level of refinancing activity and therefore increase prepayments.

In contrast to Monthly Premium Policies, when Single Premium Policies are cancelled by the insured because the loan has been paid off or otherwise, we accelerate the recognition of any remaining unearned premiums. Although these cancellations reduce IIF, assuming all other factors remain constant, the profitability of our Single Premium business increases when Persistency Rates are lower.

Our strategy has been to write a mix of Single Premium Policies and Monthly Premium Policies in order to manage the overall impact on our results if actual prepayment speeds are significantly different from expectations. In addition, the 2016 and 2018 Single Premium QSR Transactions support our strategy to balance our retained mix of Single Premium Policies and Monthly Premium Policies. The impact of all of our third-party QSR transactions reduced our retained Single Premium RIF from 30.9% to 19.3% at December 31, 2017. See “Overview—*Operating Environment and Business Strategy*” for more information.

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

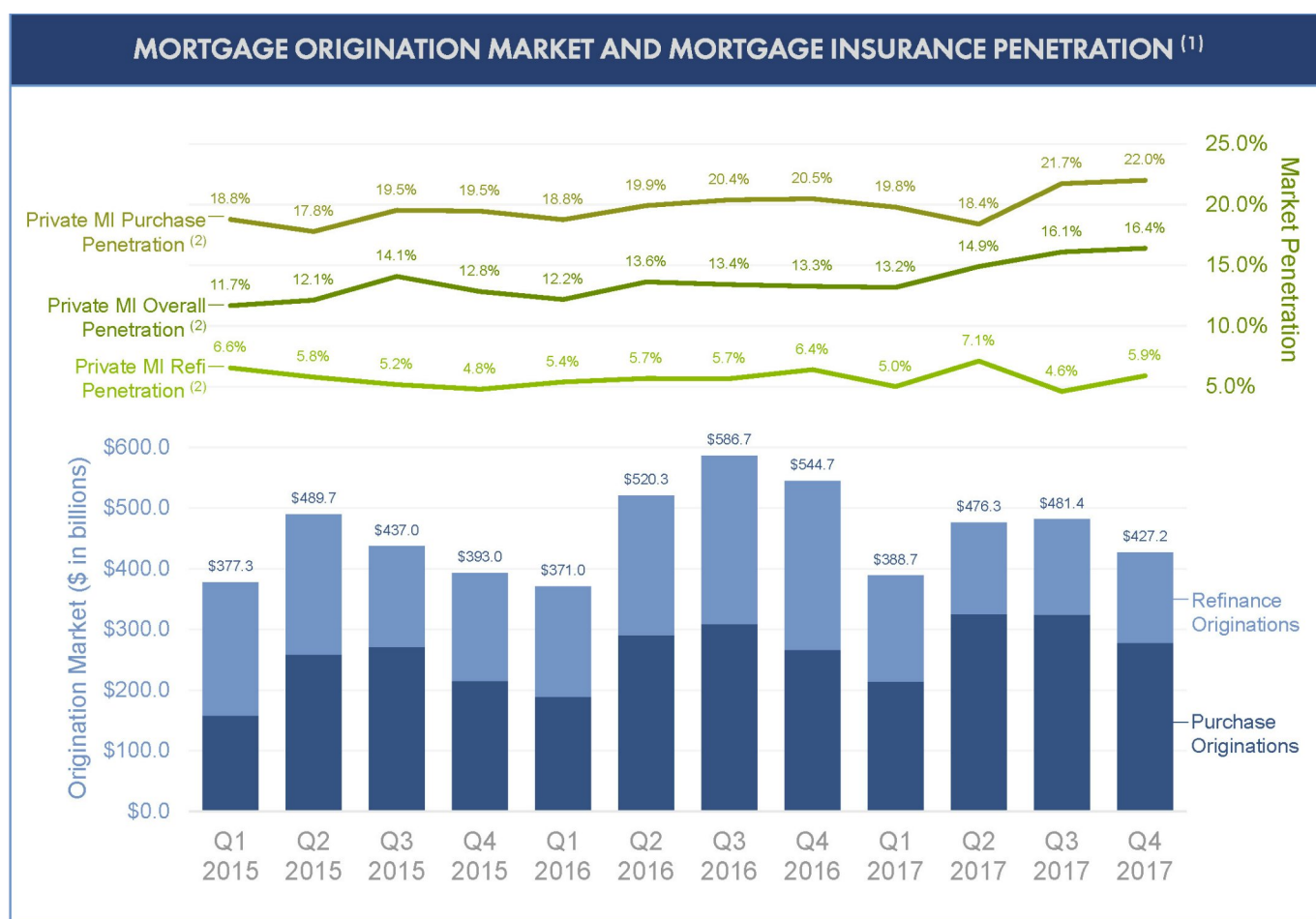
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- *NIW; Origination Market; Penetration Rate.* NIW increases our IIF and our premiums written and earned. NIW is affected by the overall size of the mortgage origination market, the penetration percentage of private mortgage insurance into the overall mortgage origination market and our market share of the private mortgage insurance market. The overall mortgage origination market is influenced by macroeconomic factors such as household formation, household composition, home affordability, interest rates, housing markets in general, credit availability and the impact of various legislative and regulatory actions that may influence the housing and mortgage finance industries. The penetration percentage of private mortgage insurance is mainly influenced by: (i) the competitiveness of private mortgage insurance for GSE conforming loans compared to FHA and VA insured loans and (ii) the relative percentage of mortgage originations that are for purchased homes versus refinances. We believe, for example, that better execution for borrowers with higher FICO scores, lender preference and the inability to cancel FHA insurance for certain loans are factors that continue to provide a competitive advantage for private mortgage insurers. See “Results of Operations—*Mortgage Insurance—NIW, IIF, RIF.*”

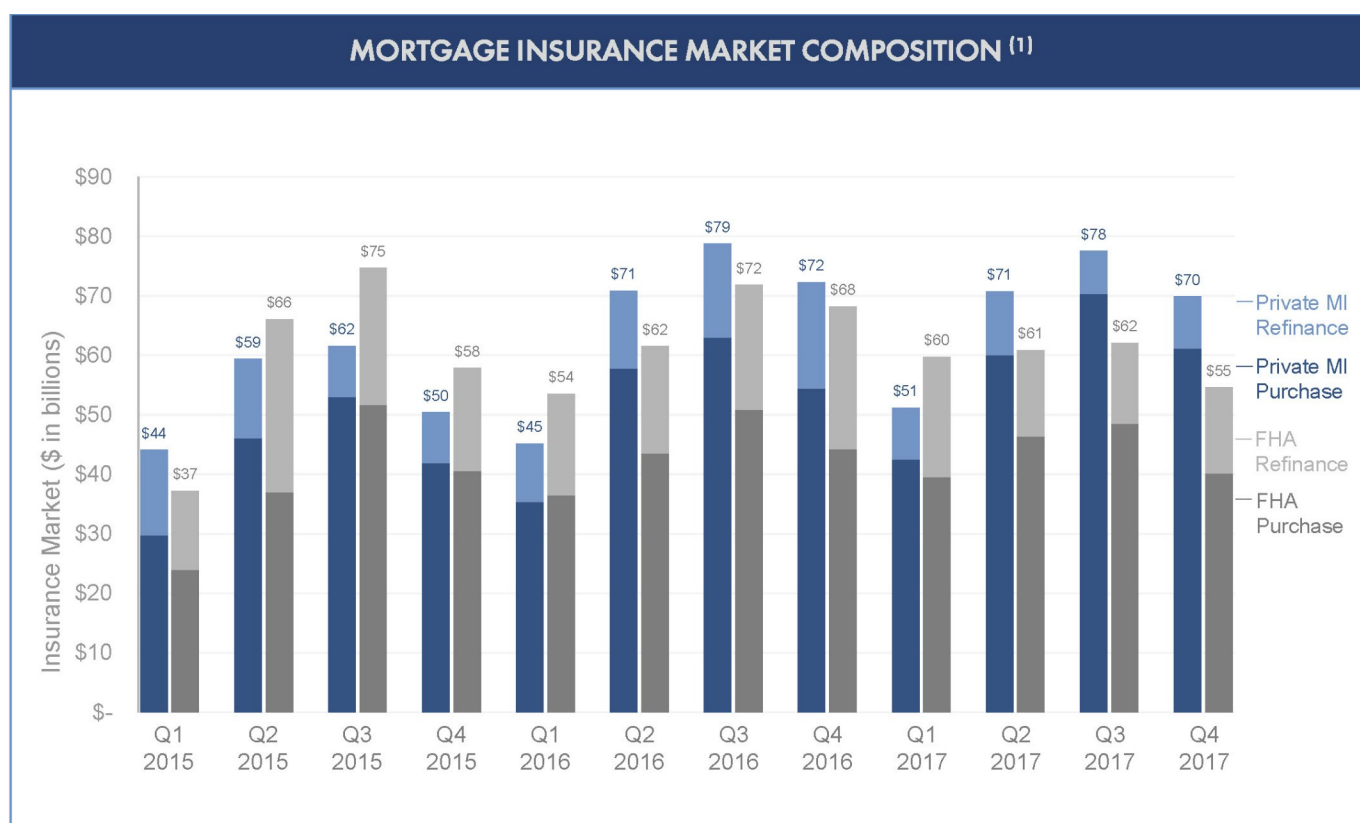
Private mortgage insurance penetration in the insurable market tends to be significantly higher on new mortgages for purchased homes than on the refinance of existing mortgages, because average LTV ratios are typically higher on home purchases and therefore are more likely to require mortgage insurance. Radian Guaranty's share of the private mortgage insurance market is influenced by competition in that market. See “Item 1. Business—Mortgage Insurance—Competition” and “Results of Operations—Mortgage Insurance—*NIW, IIF, RIF.*”

The following charts provide a historical perspective on certain key market drivers, including:

- the mortgage origination volume from home purchases and refinancings;
- private mortgage insurance penetration as a percentage of the mortgage origination market; and
- the composition of the insured mortgage market between private mortgage insurance and FHA insurance.



- (1) Based on actual dollars generated in credit enhanced market, as reported by the U.S. Department of Housing and Urban Development, the International Monetary Fund and company publicly reported information. 2017 estimates based upon average of Mortgage Bankers Association, Freddie Mac and Fannie Mae December 2017 Financial Forecasts and Radian internal assumptions.
- (2) Excluding HARP originations.



(1) Based on actual dollars generated in the market, as reported by GSEs and company publicly reported information. Q4 2017 is based on most recent available industry and GSE estimates.

- Premiums.** The premium rates we charge for our insurance are based on a number of borrower, loan and property characteristics. The mortgage insurance industry is highly competitive and private mortgage insurers compete with each other and with the FHA and VA with respect to price and other factors. We expect price competition to continue throughout the mortgage insurance industry and future price reductions from private mortgage insurers or the FHA could impact our future premium rates or our ability to compete.

Our pricing is risk-based and is intended to align with the capital requirements under the PMIERS, while considering pricing trends within the private mortgage insurance industry. As a result, our pricing is expected to generate relatively consistent returns across the credit spectrum and to provide relatively stable expected loss ratios regardless of further credit expansion. We monitor competitive and economic factors while seeking to balance both profitability and market share considerations in developing our strategies. We continued to generate strong NIW in 2017, and believe we remain well positioned to compete for the high-quality business being originated today, while at the same time maintaining projected returns on NIW within our targeted ranges.

Recently, we have expected that our current pricing (including the impact of our reinsurance transactions) would, over the life of the policies, produce returns on required capital on new business on an unlevered basis (i.e., after-tax underwriting returns plus projected investment income) of approximately 14% to 15%, and approximately 17% to 18% on a levered basis (i.e., after-tax returns taking into consideration a corporate debt-to-capital ratio of 25%). If all other factors were to remain constant, we would expect that, beginning in 2018, the TCJA would increase our unlevered and levered returns to 17% to 18% and 21% to 22%, respectively. However, this projected improvement due to the TCJA will be impacted by changes in various other factors, which may include the likely unfavorable impact of changes in the PMIERS financial requirements or other competitive factors. The GSEs have informed us that they expect updates to the PMIERS will become effective in the fourth quarter of 2018. It is reasonably likely that updates to the PMIERS could, among other things, result in a material increase to Radian Guaranty’s capital requirements under the PMIERS financial requirements, which could negatively impact our returns. See “Liquidity and Capital Resources—Radian Group—Short-Term Liquidity Needs—Capital Support for Subsidiaries” and Note 1 of Notes to Consolidated Financial Statements for additional information.

Premiums on our mortgage insurance products are generally paid either on a monthly installment basis ("Monthly Premiums") or in a single payment ("Single Premiums") at the time of loan origination. See "Item 1. Business—Mortgage Insurance—Mortgage Insurance Business Overview—Premium Rates—Primary Mortgage Insurance." Our expected rate of return on our Single Premium Policies is lower than on our Monthly Premium Policies because our premium rates are generally lower for our Single Premium Policies. However, as discussed above, the ultimate profitability of Single Premium Policies may be higher or lower than expected due to prepayments. See "*IIF; Persistency Rate; Mix of Business.*"

Our actual portfolio returns will depend on a number of factors, including economic conditions, the mix of NIW that we are able to write, our pricing, the amount of reinsurance we use and the level of capital required under the PMIERs financial requirements.

Rescissions, which are discussed in further detail below, result in a full refund of the inception-to-date premiums received, and therefore, premiums earned are negatively affected by any increases in our accrual for estimated Rescission refunds. Additionally, premiums ceded to third-party reinsurance counterparties decrease premiums written and earned.

Approximately 64% of the loans in our total primary mortgage insurance portfolio at December 31, 2017 have Monthly Premium Policies that provide a level monthly premium for the first 10 years of the policy, followed by a reduced level monthly premium thereafter. If a loan is refinanced under HARP, the initial 10-year period is reset. Due to the borrower's ability to cancel the policy generally when the LTV reaches 80% of the original value, and the automatic cancellation of the policy when the LTV reaches 78% of the original value, the volume of loans that remain insured after 10 years and would be subject to the premium reset is generally not material in relation to the total loans originated. However, to the extent the volume of loans resetting from year to year varies significantly, the trend in earned premiums may also vary.

- *Losses.* Incurred losses represent the estimated future claim payments on newly defaulted insured loans as well as any change in our claim estimates for existing defaults, including changes in the estimates we use to determine our expected losses, and estimates with respect to the frequency, magnitude and timing of anticipated losses on defaulted loans. Other factors influencing incurred losses include:
  - The mix of credit characteristics in our total direct RIF (e.g., loans with higher risk characteristics, or loans with layered risk that combine multiple higher-risk attributes within the same loan, generally result in more delinquencies and claims). See "Results of Operations—Mortgage Insurance—*NIW, IIF, RIF.*"
  - The average loan size (relatively higher priced properties with larger average loan amounts may result in higher incurred losses).
  - The percentage of coverage on insured loans (higher percentages of insurance coverage generally correlate with higher incurred losses) and the presence of structural mitigants such as deductibles or stop losses.
  - Changes in housing values (declines in housing values generally make it more difficult for borrowers to sell a home to avoid default or for the property to be sold to mitigate any claim, and also may negatively affect a borrower's willingness to continue to make mortgage payments when the home value is less than the mortgage balance; conversely, increases in housing values tend to reduce the level of defaults as well as make it more likely that foreclosures will result in the loan being satisfied).
  - The distribution of claims over the life cycle of a portfolio (historically, claims are relatively low during the first two years after a loan is originated and then increase over a period of several years before declining; however, several factors can impact and change this cycle, including the economic environment, the quality of the underwriting of the loan, characteristics of the mortgage loan, the credit profile of the borrower, housing prices and unemployment rates).



- Our ability to mitigate potential losses through Rescissions, Claim Denials, cancellations and Claim Curtailments on claims submitted to us. These actions all reduce our incurred losses. However, if these Loss Mitigation Activities are successfully challenged at rates that are higher than expected or we agree to settle disputes related to our Loss Mitigation Activities, our incurred losses will increase. As our portfolio originated prior to 2009 has become a smaller percentage of our overall insured portfolio, there has been a decrease in the amount of Loss Mitigation Activity with respect to the claims we receive, and we expect this trend to continue, particularly given the limitations on our Loss Mitigation Activities imposed in the 2014 Master Policy. See “Item 1A. Risk Factors—*Our Loss Mitigation Activity is not expected to mitigate losses to the same extent as in prior years; Loss Mitigation Activity could continue to negatively impact our customer relationships.*”
- Agreements such as (i) the Freddie Mac Agreement, which established certain terms for the treatment of the loans subject to that agreement, including claim payments, Loss Mitigation Activity and insurance coverage, and capped Radian Guaranty's claim exposure on such loans and (ii) the BofA Settlement Agreement, which, for certain loans, finalized claims decisions and limited Loss Mitigation Activities. Because the Freddie Mac Agreement reached its scheduled final settlement date in 2017 and cash payments under the BofA Settlement Agreement were effectively completed in 2015, we do not expect a material impact from either of these two agreements in the future. See Note 11 of Notes to Consolidated Financial Statements for additional information.
- *Other Operating Expenses.* Our other operating expenses are affected by the amount of our NIW, as well as the amount of RIF. Additionally, during 2015, our operating expenses were impacted significantly by compensation expense associated with changes in the estimated fair value of certain of our long-term equity-based incentive awards that were settled in cash. The fair value of these awards, and associated compensation expense, were dependent, in large part, on our stock price at any given point in time. Under the terms of our current awards, we do not expect expense volatility associated with our equity-based incentive awards in the future.
- *Third-Party Reinsurance.* We use third-party reinsurance in our mortgage insurance business to manage capital and risk, including to balance our retained mix of Single Premium Policies and Monthly Premium Policies. See “—Mortgage Insurance—IIF.” When we enter into a reinsurance agreement, the reinsurer receives a premium and, in exchange, agrees to insure an agreed upon portion of incurred losses. These arrangements have the impact of reducing our earned premiums but also reduce our net RIF, which provides capital relief, including under the PMIERS financial requirements. Our incurred losses are reduced by any incurred losses ceded in accordance with the reinsurance agreement, and we often receive ceding commissions from the reinsurer as part of the transaction, which reduces our operating expenses. See Note 8 of Notes to Consolidated Financial Statements for more information about our reinsurance arrangements.

### **Services**

Our Services segment is a fee-for-service business that offers a broad array of both mortgage and real estate services to market participants across the mortgage and real estate value chain. In connection with the restructuring of our Services business, we have refined our Services business strategy going forward to focus on our core mortgage and real estate services. These services provide mortgage lenders, financial institutions, mortgage and real estate investors and government entities, among others, with information and other resources and services that are used to originate, evaluate, acquire, securitize, service and monitor residential real estate and loans secured by residential real estate. Our mortgage services offerings include transaction management services such as loan review, RMBS securitization and distressed asset reviews, servicer and loan surveillance and underwriting. Our real estate services include REO asset management; review and valuation services related to single family rental properties; real estate valuation services; real estate brokerage services; and title and settlement services that include title search, settlement and closing services. See “Item 1. Business—Services—Customers” for additional information regarding the Services segment's customers.

The services that we will no longer offer as a result of the restructuring of our Services business have not had a material impact on our consolidated cash flows or results of operations in recent periods. Therefore, as compared to our results in 2016 or 2017, we do not expect a material impact on our consolidated cash flows or results of operations from discontinuing these services. See “Overview—*Operating Environment and Business Strategy*” for more information. See Note 1 of Notes to Consolidated Financial Statements, “Item 1. Business—Services—Services Business Overview” and “Overview—*Other 2017 Developments*” for additional information regarding the Services segment.

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

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In contrast to our Mortgage Insurance business, the Services segment is a fee-for-service business without significant balance sheet risk. Key factors impacting results for our Services business include:

- *Services Revenue.* The sales volume in our Services segment is influenced by the demand for our services, which generally varies based on the overall activity in the mortgage, real estate and mortgage finance markets as well as the health of related industries. Sales volume is also affected by the number of competing companies and alternative products offered in the market. We believe the diversity of services we offer has the potential to produce fee income from the Services segment throughout various mortgage finance environments, although market conditions can significantly impact the amount of fee income we generate in any particular period.

The Services segment is dependent on a limited number of large customers that represent a significant portion of its revenues. Access to Radian Guaranty's mortgage insurance customer base provides additional opportunities to expand the segment's existing customers. However, an unexpected loss of a major customer could significantly impact the level of Services revenue. Generally, our contracts do not contain volume commitments and may be terminated by clients at any time.

Revenue for the Services segment also includes inter-segment revenues from services performed for our Mortgage Insurance segment. See Note 4 of Notes to Consolidated Financial Statements for additional information.

Our Services revenue is generated under three basic types of contracts:

- *Fixed-Price Contracts.* Under fixed-price contracts, we agree to perform the specified services and deliverables for a pre-determined per-unit or per-file price or day rate. To the extent our actual direct and allocated indirect costs decrease or increase from the estimates upon which the price was negotiated, we will generate more or less profit, respectively, or could incur a loss. We use fixed-price contracts in our real estate valuation and component services, our loan review, underwriting and due diligence services as well as our title and closing services. We also use fixed-price contracts in our surveillance business for our servicer oversight services and RMBS surveillance services, and in our REO management business.
  - *Time-and-Expense Contracts.* Under a time-and-expense contract, we are paid a fixed hourly rate, and we are reimbursed for billable out-of-pocket expenses as work is performed. To the extent our actual direct labor costs decrease or increase in relation to the fixed hourly billing rates provided in the contract, we may generate more or less profit, respectively. However, because these contracts are generally short-term in nature, the risk is limited to the periods covered by the contracts. These contracts are used for our loan review, underwriting and due diligence services.
  - *Percentage-of-Sale Contracts.* Under percentage-of-sale contracts, we are paid a contractual percentage of the sale proceeds upon the sale of each property. To the extent the sale of a property is delayed or not consummated, or the sales proceeds are significantly less than originally estimated, we may generate less profit than anticipated, or could incur a loss. These contracts are only used for a portion of our REO management services and our real estate brokerage services. In addition, through the use of our proprietary technology, property leads are sent to select clients. Upon the client's successful closing on the property, we recognize revenue for these transactions based on a percentage of the sale.
- *Cost of Services.* Our cost of services is primarily affected by our level of services revenue. Our cost of services primarily consists of employee compensation and related payroll benefits, including the cost of billable labor assigned to revenue-generating activities and, to a lesser extent, other costs of providing services such as travel and related expenses incurred in providing client services, costs paid to outside vendors, data acquisition costs and other compensation-related expenses to maintain software application platforms that directly support our businesses. The level of these costs may fluctuate if market rates of compensation change, or if there is decreased availability or a loss of qualified employees.
  - *Gross Profit on Services.* In addition to the key factors affecting Services revenue and cost of services described above, our gross profit on services may fluctuate from period to period due to a shifting mix of services we provide resulting from changes in the relative demand for those services in the marketplace. Shifts in the business mix of our Services business can impact our gross profit because each product and service generally produces a different level of gross margin. These individual gross margins in turn can be impacted in any given period by factors such as the implementation of new regulatory requirements, our operating capacity, competition or other environmental factors.

- *Operating Expenses.* Our operating expenses primarily consist of salaries and benefits not classified as cost of services because they are related to employees, such as sales and corporate employees, that are not directly involved in providing client services. Operating expenses also include other selling, general and administrative expenses, depreciation, and allocations of corporate general and administrative expenses.

#### **Other Factors Affecting Consolidated Results**

The following items also may impact our consolidated results in the ordinary course. The items listed are not representative of all potential items impacting our consolidated results. See “Item 1A. Risk Factors” for additional information on the risks affecting our business.

- *Investment Income.* Investment income is determined primarily by the investment balances held and the average yield on our overall investment portfolio.
- *Net Gains (Losses) on Investments.* The recognition of realized investment gains or losses can vary significantly across periods as the activity is highly discretionary based on such factors as market opportunities, our tax and capital profile and overall market cycles that impact the timing of the sales of securities. Unrealized investment gains and losses arise primarily from changes in the market value of our investments that are classified as trading and these unrealized gains and losses are generally the result of changes in interest rates or credit spreads and may not necessarily result in economic gains or losses.
- *Impairment of Goodwill or Other Intangible Assets.* The periodic review of goodwill and other intangible assets for potential impairment may impact consolidated results. Our goodwill and other intangible assets primarily relate to the acquisition of Clayton, and their valuation is based on management's assumptions, which are inherently subject to risks and uncertainties. In 2017, we recorded total impairment charges of \$200.2 million related to the goodwill and other intangible assets of the Services segment. See Note 7 of Notes to Consolidated Financial Statements for additional information.
- *Tax Cuts and Jobs Act.* On December 22, 2017, the TCJA was signed into law. The TCJA significantly changes the U.S. tax system, and includes, among other things, a reduction of the federal corporate tax rate from 35% to 21%, effective January 1, 2018. Because deferred tax assets and liabilities are measured using the enacted tax rates that are expected to apply to taxable income in the periods in which the deferred tax assets or liabilities are expected to be realized or settled, the enactment of the TCJA resulted in a material reduction of our net deferred tax assets.

The measurement of certain of our deferred taxes was recorded provisionally, and may be adjusted within the next year. The ultimate impact of the TCJA may differ from our provisional estimates due to, among other things, future guidance that may be issued, changes in our interpretation or assumptions with respect to reversal periods, the outcome of our potential settlement of the IRS Matter and future actions that we may take as a result of the new tax law.

Based on our current understanding of the TCJA, we believe that our effective tax rate for 2018, excluding the impact of Discrete Items, will approximate the statutory rate of 21%. However, our effective tax rate may be affected by any return-to-provision adjustments for temporary differences recorded during 2018, because these adjustments will affect our current provision at a 35% rate while affecting our deferred provision at a 21% rate. Our return-to-provision adjustments are accounted for as Discrete Items and are generally recorded in the three-month period ending December 31. Because there may be future changes in interpretations of the TCJA and additional guidance issued, as well as changes in our assumptions or actions as a result of the TCJA, our actual future effective tax rate may differ from our initial estimates.

For periods beginning January 1, 2018, we expect the TCJA, excluding the impact of Discrete Items, to have a significant favorable impact on the Company's net income, diluted earnings per share and cash flows, as compared to the tax laws in effect in 2017, primarily due to the reduction in the federal corporate tax rate from 35% to 21%. We are continuing to assess the effects of the TCJA on our future results. See “—Results of Operations—Consolidated—Income Tax Provision” and Note 10 of Notes to Consolidated Financial Statements for additional information on the TCJA.

Notwithstanding our current expectations, future policy changes or interpretations could have a positive or negative impact on our financial performance depending on how the changes would influence the economy, including business and consumer sentiment and the key factors influencing our performance.

**Results of Operations—Consolidated**

Radian Group serves as the holding company for our operating subsidiaries and does not have any operations of its own. Our consolidated operating results for 2017 primarily reflect the financial results and performance of our two business segments—Mortgage Insurance and Services. See Note 4 of Notes to Consolidated Financial Statements for information regarding the basis of our segment reporting, including the related allocations. See “Results of Operations—Mortgage Insurance,” and “Results of Operations—Services” for the operating results of these business segments.

In addition to the results of our operating segments, pretax income (loss) is also affected by “Other Factors Affecting Consolidated Results” described above. See “—Use of Non-GAAP Financial Measure” below for more information regarding items that are excluded from the operating results of our operating segments.

The following table highlights selected information related to our consolidated results of operations for the years ended December 31, 2017, 2016 and 2015:

(\$ in millions, except per-share amounts)	Year Ended December 31,			\$ Change	
	2017	2016	2015	Favorable (Unfavorable)	
				2017 vs. 2016	2016 vs. 2015
Pretax income from continuing operations . . . . .	\$ 346.7	\$ 483.7	\$ 437.8	\$ (137.0)	\$ 45.9
Net income from continuing operations . . . . .	121.1	308.3	281.5	(187.2)	26.8
Income from discontinued operations, net of tax . .	—	—	5.4	—	(5.4)
Net income . . . . .	121.1	308.3	286.9	(187.2)	21.4
Diluted net income per share . . . . .	\$ 0.55	\$ 1.37	\$ 1.22	\$ (0.82)	\$ 0.15
Book value per share at December 31 . . . . .	\$ 13.90	\$ 13.39	\$ 12.07	\$ 0.51	\$ 1.32
Net premiums earned—insurance . . . . .	\$ 932.8	\$ 921.8	\$ 915.9	\$ 11.0	\$ 5.9
Services revenue . . . . .	155.1	168.9	157.2	(13.8)	11.7
Net investment income . . . . .	127.2	113.5	81.5	13.7	32.0
Net gains (losses) on investments and other financial instruments . . . . .	3.6	30.8	35.7	(27.2)	(4.9)
Provision for losses . . . . .	135.2	202.8	198.6	67.6	(4.2)
Cost of services . . . . .	104.6	114.2	93.7	9.6	(20.5)
Other operating expenses . . . . .	267.3	244.9	242.4	(22.4)	(2.5)
Restructuring and other exit costs . . . . .	17.3	—	—	(17.3)	—
Interest expense . . . . .	62.8	81.1	91.1	18.3	10.0
Loss on induced conversion and debt extinguishment . . . . .	51.5	75.1	94.2	23.6	19.1
Impairment of goodwill . . . . .	184.4	—	—	(184.4)	—
Amortization and impairment of other intangible assets . . . . .	27.7	13.2	13.0	(14.5)	(0.2)
Income tax provision . . . . .	225.6	175.4	156.3	(50.2)	(19.1)
Adjusted pretax operating income (1) . . . . .	\$ 617.2	\$ 541.8	\$ 510.9	\$ 75.4	\$ 30.9

(1) See “—Use of Non-GAAP Financial Measure” below.

*Net Income from Continuing Operations.* As discussed in more detail below, our results for 2017 compared to 2016 primarily reflect: (i) the impairment of goodwill and other intangible assets related to the Services segment; (ii) additional tax expense related to the remeasurement of our net deferred tax assets as a result of the TCJA; (iii) a decrease in net gains on investments and other financial instruments; (iv) an increase in other operating expenses; and (v) restructuring and other exit costs associated with our plan to restructure the Services business. These items were partially offset by, among other things: (i) a decrease in provision for losses; (ii) a decrease in loss on induced conversion and debt extinguishment; and (iii) lower interest expense.

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The improvement in our results for 2016 compared to 2015 primarily reflect an increase in net investment income and a decrease in loss on induced conversion and debt extinguishment.

*Income from Discontinued Operations, Net of Tax.* In 2015, we recorded net income from discontinued operations due to the completion of the sale of Radian Asset Assurance to Assured on April 1, 2015. See Note 18 of Notes to Consolidated Financial Statements for more information.

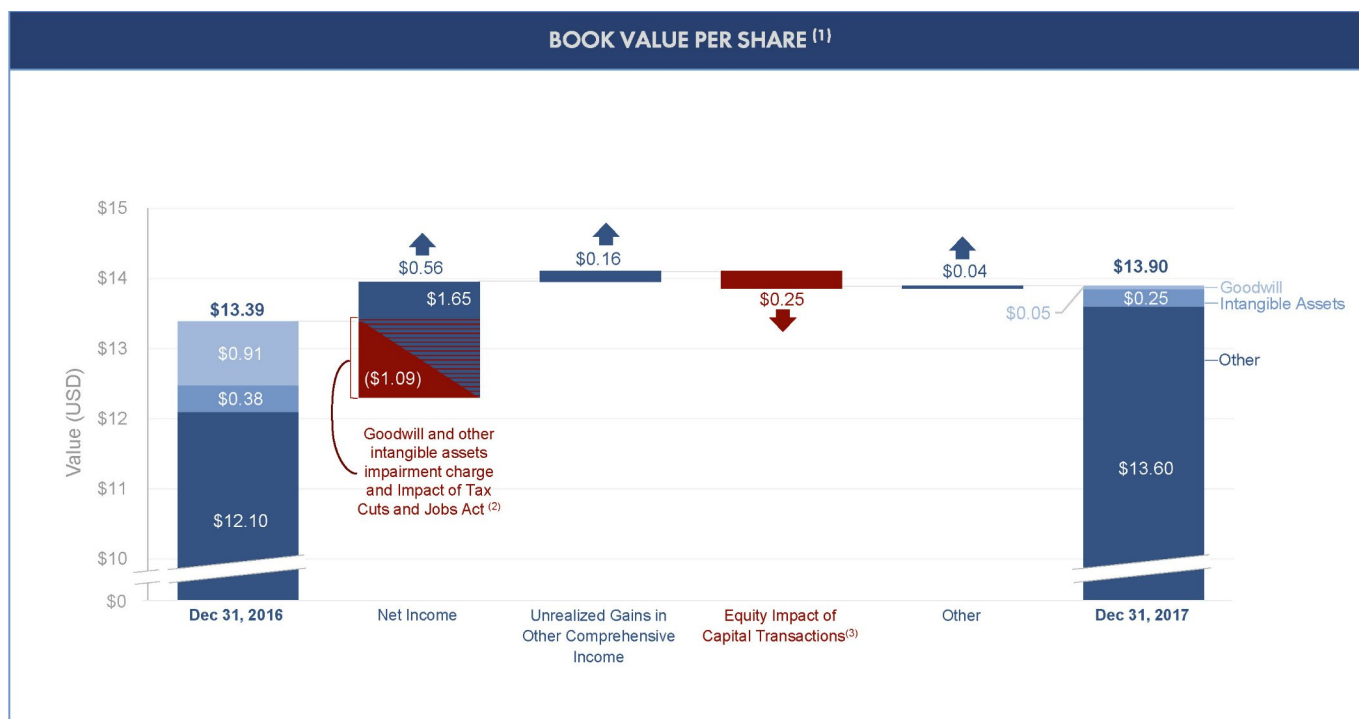
*Diluted Net Income Per Share.* The change in diluted net income per share for 2017 was unfavorable compared to 2016, primarily due to the changes in net income, as discussed above, partially offset by the decrease in average diluted shares. The average diluted shares decreased from 229.3 million shares in 2016 to 220.4 million shares for 2017.

The decrease in average diluted shares for 2017 compared to 2016 is primarily due to the full-year impact of the series of capital management transactions effected in 2016, which included: (i) the purchases of portions of our Convertible Senior Notes due 2017 and 2019, and (ii) the purchase of 9.4 million shares of Radian Group common stock. In addition, in January 2017, we settled our obligations with respect to the remaining \$68.0 million aggregate principal amount of our Convertible Senior Notes due 2019 which, as of the settlement date, resulted in a decrease of an additional 6.4 million diluted shares for purposes of determining diluted net income per share.

The increase in diluted net income per share for 2016, compared to 2015, is primarily due to the increase in net income from continuing operations, as discussed above, combined with the decrease in average diluted shares. The average diluted shares decreased from 246.3 million shares for 2015 to 229.3 million shares for 2016. This decrease in average diluted shares is primarily due to the impact of the June 2015 repurchase of \$389.1 million of our Convertible Senior Notes due 2017, combined with the impact of the series of 2016 capital management transactions described above, included as of their effective dates. See Notes 3 and 12 of Notes to Consolidated Financial Statements for additional information.

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*Book Value Per Share.* As shown below, the increase in book value per share from \$13.39 at December 31, 2016 to \$13.90 at December 31, 2017 is primarily due to our net income and increase in unrealized gains in other comprehensive income, partially offset by the equity impact of the series of capital and liquidity actions completed in 2017 described above.

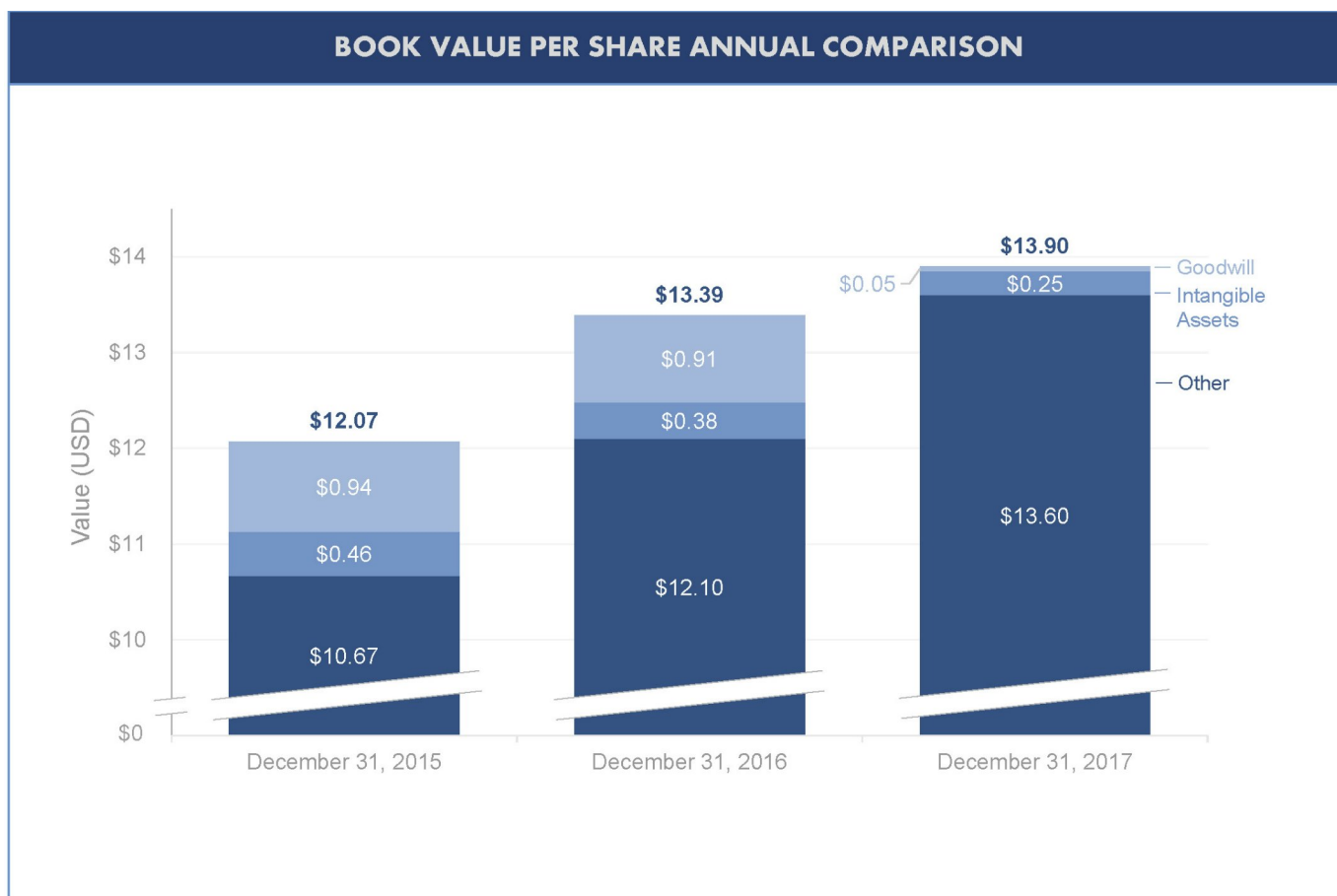


- (1) All book value per share items above are calculated based on 214.5 million shares outstanding as of December 31, 2016, except for the December 31, 2017 book value per share, which was calculated based on 215.8 million shares outstanding as of December 31, 2017.
- (2) The \$0.56 increase in book value per share resulting from our net income is net of the impact of a goodwill and other intangible assets impairment charge of \$0.61 per share and an incremental tax provision of \$0.48 per share related to the remeasurement of our net deferred tax assets as a result of the TCJA.
- (3) Reflects the net equity impact of the extinguishment of the remaining Convertible Senior Notes due 2019 and the purchases of a portion of the Convertible Senior Notes due 2017, excluding the loss on conversion and debt extinguishment, which is included in net income. See “Overview—Other 2017 Developments” for additional information.



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The amount of goodwill and other intangible assets included in book value per share decreased significantly, from \$1.29 per share at December 31, 2016 to \$0.30 at December 31, 2017, primarily due to the impairment of goodwill and other intangible assets, in each case related to the Services segment, as shown in the chart below.



*Services Revenue and Cost of Services.* Services revenue and cost of services all relate to our Services segment. See “Results of Operations—Services” for more information.

*Net Gains (Losses) on Investments and Other Financial Instruments.* The decrease in net gains on investments and other financial instruments in 2017 as compared to 2016 is primarily due to: (i) the decrease in net realized gains attributable to sales and redemptions of fixed-maturities available for sale and trading securities and (ii) the decrease in unrealized gains on investments and other financial instruments in 2017, as compared to 2016, primarily related to the change in fair value of trading securities and other investments.

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Net gains on investments and other financial instruments decreased in 2016 as compared to 2015, primarily due to a decrease in net realized gains on investments in 2016 as compared to 2015. In 2015 we sold equity securities in our portfolio and reinvested the proceeds in assets that qualify as PMIERS-compliant Available Assets, recognizing pretax gains of \$69.2 million. This decrease was partially offset by an increase in unrealized gains related to change in fair value of trading securities and other investments. The components of the net gains (losses) on investments and other financial instruments for the periods indicated are as follows:

(In millions)	Year Ended December 31,		
	2017	2016	2015
Net unrealized gains (losses) related to change in fair value of trading securities and other investments . . . . .	\$ 13.2	\$ 27.2	\$ (27.0)
Net realized gains (losses) on investments . . . . .	(8.6)	4.3	62.1
Other-than-temporary impairment losses . . . . .	(1.4)	(0.5)	—
Net gains (losses) on other financial instruments . . . . .	0.4	(0.2)	0.6
Net gains (losses) on investments and other financial instruments . . . . .	\$ 3.6	\$ 30.8	\$ 35.7

*Other Operating Expenses.* Other operating expenses for 2017 increased as compared to 2016, primarily due to: (i) \$6.6 million of expenses associated with retirement and consulting agreements entered into in February 2017 with our former Chief Executive Officer; (ii) increases in technology expenses associated with a significant investment in upgrading our systems; (iii) expenses accrued to defend and resolve certain outstanding legal matters; and (iv) a decrease in ceding commissions. The increase in other operating expenses for 2017 was partially offset by lower compensation expense in 2017, including variable incentive-based compensation.

*Restructuring and other exit costs.* For 2017, restructuring and other exit costs include charges associated with our plan to restructure the Services business. Charges are primarily due to severance and related benefit costs and impairment of long-lived assets and loss from the sale of a business line. See “—Overview” for more information.

*Interest Expense.* Interest expense for 2017 decreased compared to 2016. This decrease was primarily due to reductions in interest expense from our: (i) August 2016 redemption of the remaining \$195.5 million outstanding principal amount of our Senior Notes due 2017; (ii) January 2017 settlement of the remaining \$68.0 million outstanding principal amount of our Convertible Senior Notes due 2019; and (iii) purchases during 2016 of \$322.0 million aggregate principal amount of Convertible Senior Notes due 2019.

Interest expense for 2016 decreased compared to 2015. This decrease was primarily due to reductions in interest expense from: (i) the March 2016 and June 2015 purchases of aggregate principal amounts of \$30.1 million and \$389.1 million, respectively, of Convertible Senior Notes due 2017; (ii) the 2016 purchases of \$322.0 million aggregate principal amount of Convertible Senior Notes due 2019; and (iii) the August 2016 redemption of the remaining \$195.5 million aggregate principal amount of our Senior Notes due 2017. These reductions were partially offset by increased interest expense from the March 2016 issuance of \$350 million aggregate principal amount of Senior Notes due 2021 and the June 2015 issuance of \$350 million aggregate principal amount of Senior Notes due 2020.

*Loss on induced conversion and debt extinguishment.* During 2017, pursuant to cash tender offers, we purchased aggregate principal amounts of \$141.4 million, \$115.9 million and \$152.3 million of our Senior Notes due 2019, 2020 and 2021, respectively, resulting in a loss on induced conversion and debt extinguishment of \$45.8 million. During 2017, we also purchased an aggregate principal amount of \$21.6 million of our outstanding Convertible Senior Notes due 2017 and settled our obligations on the remaining Convertible Senior Notes due 2019, resulting in losses on debt extinguishment of \$1.2 million and \$4.5 million, respectively.

During 2016, our purchases of Convertible Senior Notes due 2017 and 2019 and redemption of Senior Notes due 2017 resulted in a loss on induced conversion and debt extinguishment of \$75.1 million consisting of: (i) a market premium of \$41.8 million, representing the excess of the fair value of the total consideration delivered to the sellers of the Convertible Senior Notes due 2017 and 2019 over the fair value of the common stock issuable pursuant to the original conversion terms of the purchased notes; (ii) a loss on debt extinguishment of \$17.2 million, representing the difference between the fair value and the carrying value, net of unamortized issuance costs, of the liability component of the purchased Convertible Senior Notes due 2017 and 2019; (iii) a loss on debt extinguishment of \$15.0 million on the redemption of the Senior Notes due 2017; and (iv) expenses totaling \$1.1 million for transaction costs.

The loss on induced conversion and debt extinguishment of \$94.2 million for the year ended December 31, 2015 was primarily related to the purchases in the second quarter of 2015 of Convertible Senior Notes due 2017. See Note 12 of Notes to Consolidated Financial Statements for information on our extinguishment of debt.

*Amortization and Impairment of Intangible Assets and Impairment of Goodwill.* The amortization of intangible assets primarily reflects the amortization of intangible assets acquired as part of the Clayton acquisition. During the second quarter of 2017, we recorded a goodwill impairment charge of \$184.4 million, as well as an impairment charge for other intangible assets of \$15.8 million, in each case related to our Services segment. These charges were primarily due to changes in expectations regarding the future growth of certain Services business lines, resulting from changes in our business strategy, combined with market trends observed during the second quarter of 2017 that we expect to persist. As a result, as of December 31, 2017, the remaining balances of goodwill and other intangible assets reported in our consolidated balance sheet were \$10.9 million and \$53.3 million, respectively. See “—Overview—Operating Environment and Business Strategy—Business Strategy” and Note 7 of Notes to Consolidated Financial Statements for additional information.

*Income Tax Provision.* Our effective tax rate from continuing operations was 65.1% for 2017, compared to 36.3% for 2016 and 35.7% for 2015. The increase in our 2017 effective tax rate was primarily due to the impact of the TCJA, which resulted in a \$102.6 million increase in our income tax provision, as discussed below.

On December 22, 2017, the TCJA was signed into law. The TCJA significantly changes the U.S. tax system, and includes, among other things, a reduction of the federal corporate tax rate from 35% to 21%, effective January 1, 2018. Because deferred tax assets and liabilities are measured using the enacted tax rates that are expected to apply to taxable income in the periods in which the deferred tax assets or liabilities are expected to be realized or settled, the enactment of the TCJA resulted in a \$102.6 million reduction of our net deferred tax assets, recorded as additional income tax provision in 2017. In accordance with SAB 118, the measurement of certain of our deferred taxes was recorded provisionally, and may be adjusted within the next year.

As of December 31, 2017, our deferred tax balances for certain items, primarily including uncertain tax positions, NOLs expected to be utilized in carryback years and our inventory of tax credit carryforwards, did not require adjustment, as the value at which these amounts are expected to be realized was not affected by the enactment of the TCJA. As a result, approximately \$78.4 million of our net deferred tax asset balance was not impacted by the corporate tax rate reduction.

The ultimate impact of the TCJA may differ from our provisional estimates due to, among other things, future guidance that may be issued, changes in our interpretation or assumptions with respect to reversal periods, the outcome of our potential settlement of the IRS Matter and future actions that we may take as a result of the new tax law. See “—Overview—Tax Cuts and Jobs Act” and Note 10 of Notes to Consolidated Financial Statements for additional information on the TCJA.

Based on our current understanding of the TCJA, we believe that our effective tax rate for 2018, excluding the impact of Discrete Items, will approximate the statutory rate of 21%. However, our effective tax rate may be affected by any return-to-provision adjustments for temporary differences recorded during 2018, because these adjustments will affect our current provision at a 35% rate while affecting our deferred provision at a 21% rate. Our return-to-provision adjustments are accounted for as Discrete Items and are generally recorded annually in the three-month period ending December 31. Because there may be future changes in interpretations of the TCJA and additional guidance issued, as well as changes in our assumptions or actions as a result of the TCJA, our actual future effective tax rate may differ from our initial estimates.

Our 2016 effective tax rate was slightly higher than the federal statutory rate of 35%, primarily as a result of the non-deductible portion of the purchase premium relating to our Convertible Senior Notes due 2017 and 2019. The increase was partially offset by the income tax benefit resulting from our return-to-provision adjustment. For 2015, the additional expense related to the accounting for uncertainty of income taxes and the impact of state and local income taxes was substantially offset by the tax benefit from the deductible portion of the premium associated with the purchases of Convertible Senior Notes due 2017.

*Use of Non-GAAP Financial Measure.* In addition to the traditional GAAP financial measures, we have presented “adjusted pretax operating income,” a non-GAAP financial measure for the consolidated company, among our key performance indicators to evaluate our fundamental financial performance. This non-GAAP financial measure aligns with the way our business performance is evaluated by both management and by our board of directors. This measure has been established in order to increase transparency for the purposes of evaluating our core operating trends and enabling more meaningful comparisons with our peers. Although on a consolidated basis “adjusted pretax operating income” is a non-GAAP financial measure, for the reasons discussed above we believe this measure aids in understanding the underlying performance of our operations. Our senior management, including our Chief Executive Officer (Radian’s chief operating decision maker), uses adjusted pretax operating income (loss) as our primary measure to evaluate the fundamental financial performance of each of the Company’s business segments and to allocate resources to the segments.

Adjusted pretax operating income is defined as GAAP consolidated pretax income (loss) from continuing operations excluding the effects of: (i) net gains (losses) on investments and other financial instruments; (ii) loss on induced conversion and debt extinguishment; (iii) acquisition-related expenses; (iv) amortization or impairment of goodwill and other intangible assets; and (v) net impairment losses recognized in earnings and losses from the sale of lines of business.

Although adjusted pretax operating income excludes certain items that have occurred in the past and are expected to occur in the future, the excluded items represent those that are: (i) not viewed as part of the operating performance of our primary activities or (ii) not expected to result in an economic impact equal to the amount reflected in pretax income. These adjustments, along with the reasons for their treatment, are described below.

- (1) *Net gains (losses) on investments and other financial instruments.* The recognition of realized investment gains or losses can vary significantly across periods as the activity is highly discretionary based on the timing of individual securities sales due to such factors as market opportunities, our tax and capital profile and overall market cycles. Unrealized investment gains and losses arise primarily from changes in the market value of our investments that are classified as trading securities. These valuation adjustments may not necessarily result in realized economic gains or losses.

Trends in the profitability of our fundamental operating activities can be more clearly identified without the fluctuations of these realized and unrealized gains or losses. We do not view them to be indicative of our fundamental operating activities. Therefore, these items are excluded from our calculation of adjusted pretax operating income (loss).

- (2) *Loss on induced conversion and debt extinguishment.* Gains or losses on early extinguishment of debt and losses incurred to purchase our convertible debt prior to maturity are discretionary activities that are undertaken in order to take advantage of market opportunities to strengthen our financial and capital positions; therefore, we do not view these activities as part of our operating performance. Such transactions do not reflect expected future operations and do not provide meaningful insight regarding our current or past operating trends. Therefore, these items are excluded from our calculation of adjusted pretax operating income (loss).
- (3) *Acquisition-related expenses.* Acquisition-related expenses represent the costs incurred to effect an acquisition of a business (i.e., a business combination). Because we pursue acquisitions on a strategic and selective basis and not in the ordinary course of our business, we do not view acquisition-related expenses as a consequence of a primary business activity. Therefore, we do not consider these expenses to be part of our operating performance and they are excluded from our calculation of adjusted pretax operating income (loss).
- (4) *Amortization or impairment of goodwill and other intangible assets.* Amortization of intangible assets represents the periodic expense required to amortize the cost of intangible assets over their estimated useful lives. Intangible assets with an indefinite useful life are also periodically reviewed for potential impairment, and impairment adjustments are made whenever appropriate. These charges are not viewed as part of the operating performance of our primary activities and therefore are excluded from our calculation of adjusted pretax operating income (loss).
- (5) *Net impairment losses recognized in earnings and losses from the sale of lines of business.* The recognition of net impairment losses on investments and the impairment of other long-lived assets does not result in a cash payment and can vary significantly in both amount and frequency, depending on market credit cycles and other factors. Losses from the sale of lines of business are highly discretionary as a result of strategic restructuring decisions, and generally do not occur in the normal course of our business. We do not view these losses to be indicative of our fundamental operating activities. Therefore, whenever these losses occur, we exclude them from our calculation of adjusted pretax operating income (loss).

Total adjusted pretax operating income is not a measure of total profitability, and therefore should not be considered in isolation or viewed as a substitute for GAAP pretax income. Our definition of adjusted pretax operating income may not be comparable to similarly-named measures reported by other companies.

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The following table provides a reconciliation of the most comparable GAAP measure, consolidated pretax income from continuing operations, to our non-GAAP financial measure for the consolidated company, adjusted pretax operating income:

<b>Reconciliation of Consolidated Non-GAAP Financial Measure</b>			
<b>(In thousands)</b>	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Consolidated pretax income from continuing operations . . . . .	\$ 346,737	\$ 483,686	\$ 437,829
Less income (expense) items:			
Net gains (losses) on investments and other financial instruments . . . . .	3,621	30,751	35,693
Loss on induced conversion and debt extinguishment . . . . .	(51,469)	(75,075)	(94,207)
Acquisition-related expenses (1) . . . . .	(105)	(519)	(1,565)
Impairment of goodwill . . . . .	(184,374)	—	—
Amortization and impairment of other intangible assets . . . . .	(27,671)	(13,221)	(12,986)
Impairment of other long-lived assets and loss from the sale of a business line (2) . . . . .	(10,440)	—	—
Total adjusted pretax operating income (3) . . . . .	<u>\$ 617,175</u>	<u>\$ 541,750</u>	<u>\$ 510,894</u>

- (1) Acquisition-related expenses represent expenses incurred to effect the acquisition of a business, net of adjustments to accruals previously recorded for acquisition expenses.
- (2) Included within restructuring and other exit costs.
- (3) Total adjusted pretax operating income consists of adjusted pretax operating income (loss) for each segment as follows:

<b>(In thousands)</b>	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Adjusted pretax operating income (loss):			
Mortgage insurance (a) . . . . .	\$ 651,015	\$ 561,911	\$ 511,048
Services (a) . . . . .	(33,840)	(20,161)	(154)
Total adjusted pretax operating income . . . . .	<u>\$ 617,175</u>	<u>\$ 541,750</u>	<u>\$ 510,894</u>

- (a) Includes inter-segment expenses and revenues as disclosed in Note 4 of Notes to Consolidated Financial Statements.

### Results of Operations—Mortgage Insurance

During 2017, we continued our strategy of growing our mortgage insurance portfolio by writing insurance on mortgages with strong credit characteristics. At December 31, 2017, we had \$200.7 billion in IIF compared to \$183.5 billion in IIF at December 31, 2016. We also continued to focus on effectively managing our capital and liquidity positions. See “Liquidity and Capital Resources—*Radian Group—Short-Term Liquidity Needs—Capital Support for Subsidiaries*” and Note 1 of Notes to Consolidated Financial Statements for additional information.

The following table summarizes our Mortgage Insurance segment’s results of operations for the years ended December 31, 2017, 2016 and 2015:

(In millions)	Year Ended December 31,			\$ Change	
				Favorable (Unfavorable)	
	2017	2016	2015	2017 vs. 2016	2016 vs. 2015
Adjusted pretax operating income (1) . . . . .	\$ 651.0	\$ 561.9	\$ 511.0	\$ 89.1	\$ 50.9
Net premiums written—insurance (2) . . . . .	818.4	733.8	968.5	84.6	(234.7)
(Increase) decrease in unearned premiums . . .	114.4	187.9	(52.6)	(73.5)	240.5
Net premiums earned—insurance . . . . .	932.8	921.8	915.9	11.0	5.9
Net investment income . . . . .	127.2	113.5	81.5	13.7	32.0
Provision for losses . . . . .	136.2	204.2	198.4	68.0	(5.8)
Other operating expenses (3) . . . . .	206.4	185.8	195.0	(20.6)	9.2
Interest expense . . . . .	45.0	63.4	73.4	18.4	10.0

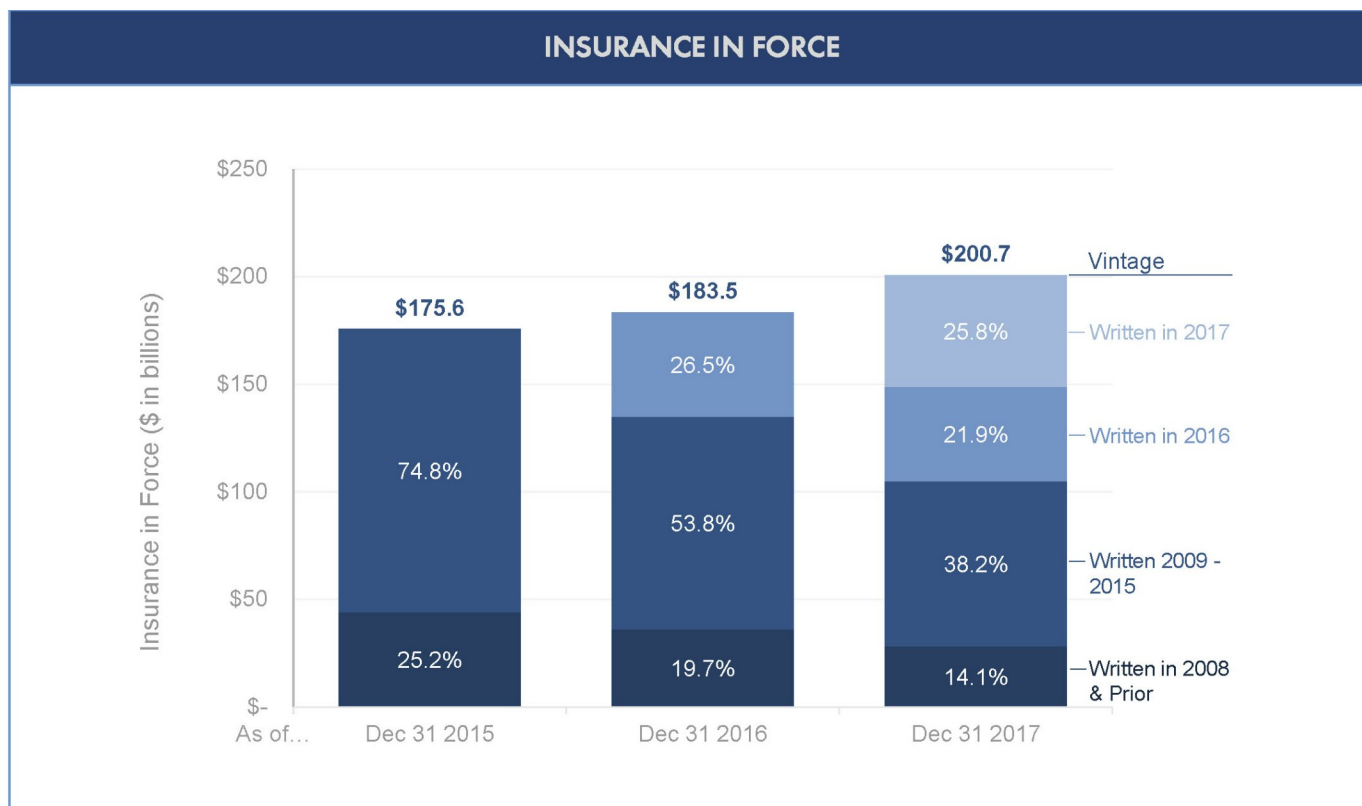
- (1) Our senior management uses adjusted pretax operating income (loss) as our primary measure to evaluate the fundamental financial performance of our business segments.
- (2) Net of ceded premiums written under the QSR Transactions and the 2016 Single Premium QSR Transaction. Effective December 31, 2017, we amended the 2016 Single Premium QSR Transaction to increase the amount of ceded risk on performing loans under the agreement from 35% to 65% for the 2015 through 2017 vintages, resulting in a reduction of \$145.7 million in net premiums written on Single Premium Policies for the fourth quarter of 2017. During 2016, we entered into the 2016 Single Premium QSR Transaction, resulting in \$233.2 million in ceded premiums written in 2016. See Note 8 of Notes to Consolidated Financial Statements for more information.
- (3) Includes allocation of corporate operating expenses of \$55.4 million, \$45.2 million and \$46.4 million for 2017, 2016 and 2015, respectively.

*Adjusted Pretax Operating Income.* Our Mortgage Insurance segment’s adjusted pretax operating income for 2017 was \$651.0 million, compared to \$561.9 million for 2016 and \$511.0 million for 2015. Our results for 2017 compared to 2016 primarily reflect a decrease in the provision for losses and to a lesser extent, a decrease in interest expense. The increase in the segment’s adjusted pretax operating income was partially offset by higher other operating expenses. Our results for 2016 compared to 2015 primarily reflect an increase in net investment income and a decrease in interest expense, partially offset by the net impact of the 2016 Single Premium QSR Transaction.



**NIW, IIF, RIF**

A key component of our current business strategy is to grow our mortgage insurance business by writing insurance on high credit quality mortgages in the U.S. Consistent with this objective, we wrote \$53.9 billion of primary new mortgage insurance in 2017, compared to \$50.5 billion of NIW in 2016. The NIW written on a Flow Basis in 2017 was Radian’s highest volume in its history. The combination of our NIW and a higher Persistency Rate resulted in an increase in IIF, from \$183.5 billion at December 31, 2016 to \$200.7 billion at December 31, 2017, as shown in the chart below. Policy years represent the original policy years, and have not been adjusted to reflect subsequent HARP refinancing activity.



The 7.0% increase in NIW for 2017 compared to 2016 is primarily attributable to an overall increase in purchase mortgage originations and an increase in our share of the mortgage insurance market, partially offset by decreased refinance originations.

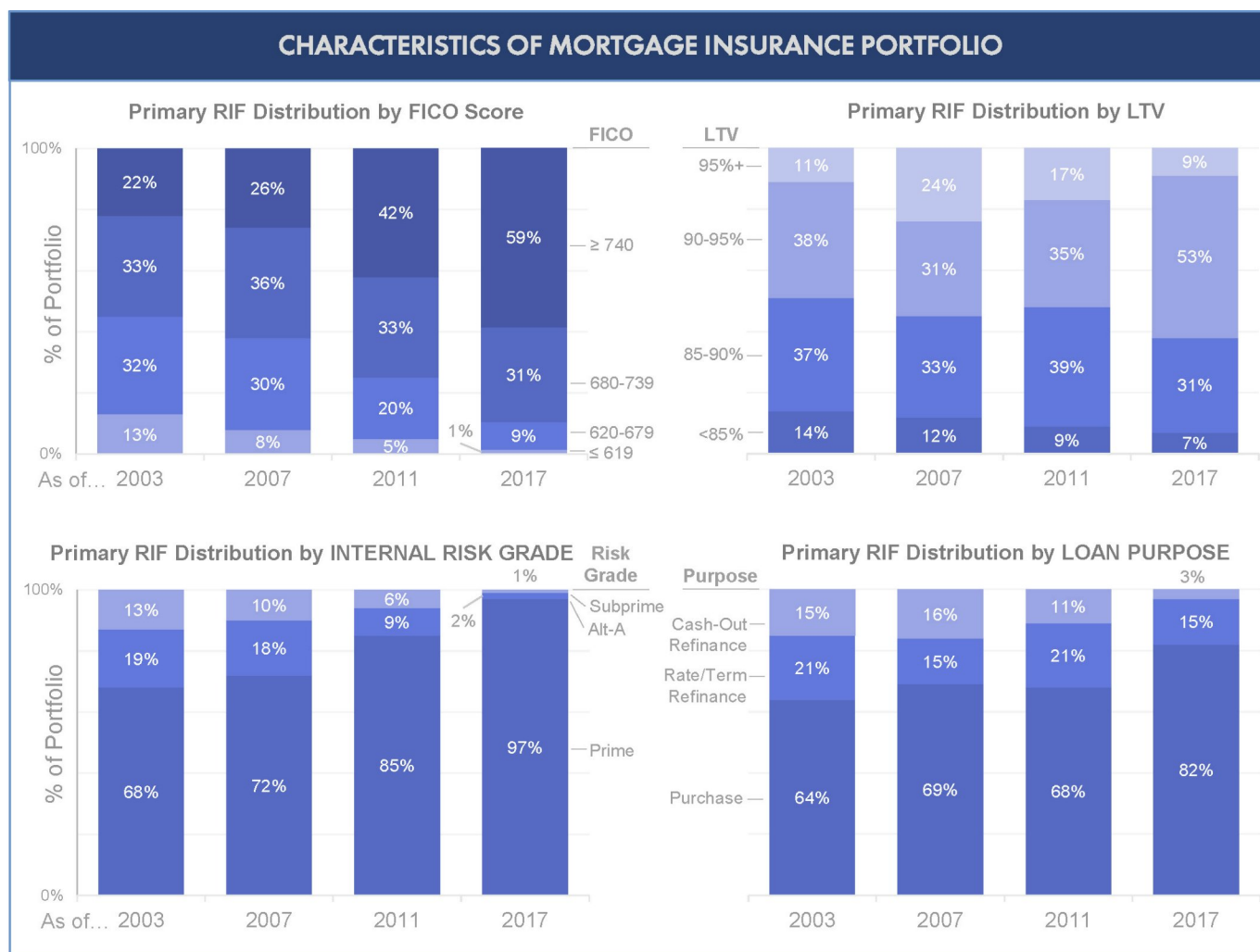
We believe total mortgage origination volume was lower for 2017, as compared to 2016, primarily due to a decrease in refinance mortgage originations resulting from the slightly higher interest rate environment, partially offset by an increase in home purchase mortgage volume due to favorable economic conditions. Because the penetration rate for mortgage insurance is generally three to five times higher on purchase originations than on refinancing transactions, the mortgage insurance market was slightly larger for 2017, compared to 2016, despite the decline in total mortgage origination volume.

Although it is difficult to project future volumes, industry sources expect the mortgage origination market in 2018 to decline approximately 5% compared to 2017, driven by a decline in refinance originations of approximately 26% as a result of higher anticipated interest rates, partially offset by an expected increase in purchase originations of approximately 7%. Given our expected penetration rates, we expect the private mortgage insurance market to be only modestly smaller in 2018 compared to 2017. Based on industry forecasts and our projections, we expect our NIW in 2018 to be approximately \$50 billion.

The mortgage loans underlying our RIF originated after 2009 possess significantly improved credit characteristics compared to our portfolio originated before 2009. See “Characteristics of Mortgage Insurance Portfolio” below. For example, FICO scores for the borrowers of our current portfolio of insured mortgages are higher, and there are fewer loans with LTVs greater than 95%.

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The table below illustrates the composition of our direct primary mortgage insurance RIF at December 31, 2017 compared to selected prior years, based on various risk characteristics.



Recently, NIW on mortgage loans with LTVs greater than 95% has been increasing throughout the industry. In general, borrowers who purchase a home with mortgage insurance tend to have higher LTVs than borrowers who refinance with mortgage insurance. With purchase volume becoming a larger proportion of total originations and access to credit continuing to steadily expand, the proportion of higher-LTV lending in the market has increased. As further described below, additional primary factors contributing to an increase in the industry’s NIW on mortgage loans with LTVs greater than 95% include: (i) GSE program enhancements (as further discussed below) and guideline changes and (ii) recent lender response to market demands, particularly in light of increasing demand from first-time home buyers. These primary drivers have been further supported by FHA regulatory enforcement actions that may cause lenders to choose GSE execution over the FHA, as well as the widespread private mortgage insurance pricing changes that occurred in the first half of 2016.

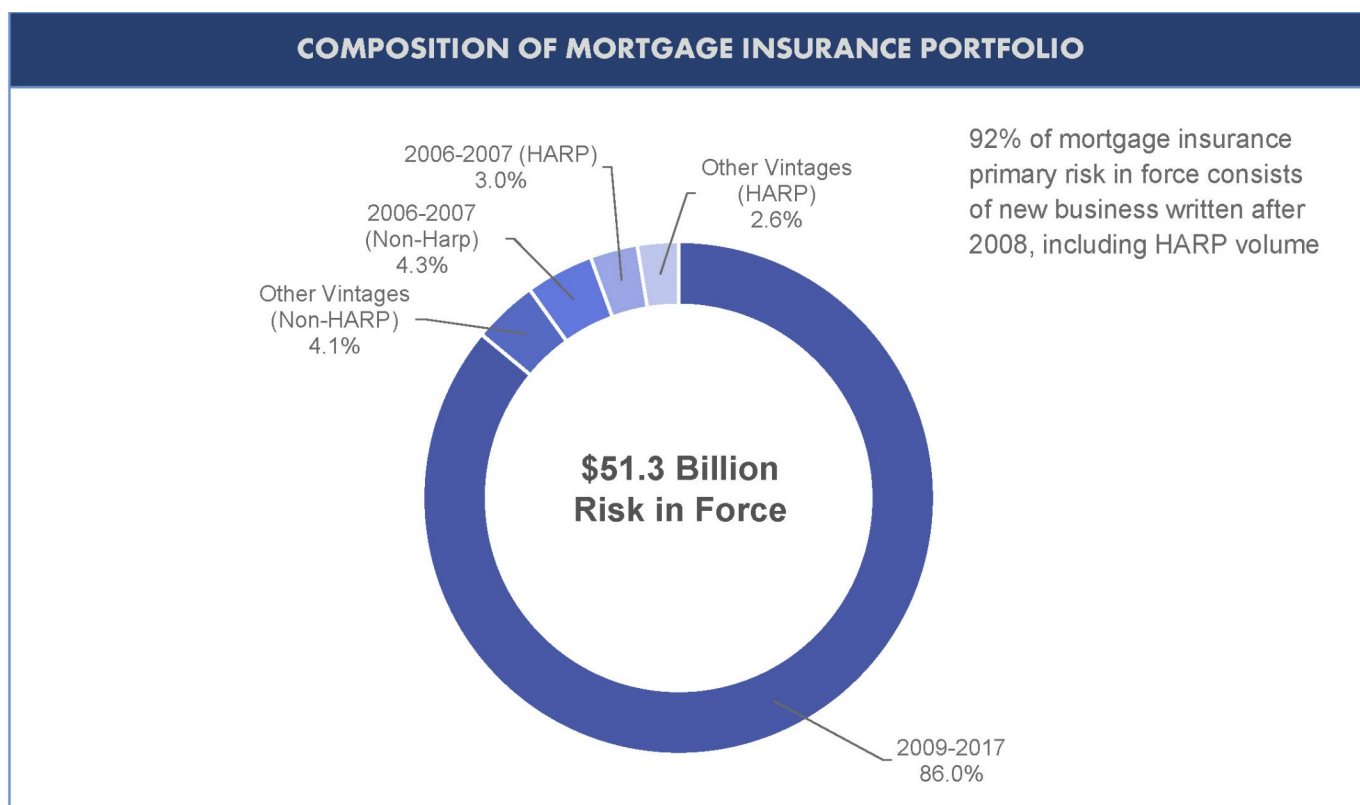
As the demand from first-time home buyers has increased, the mortgage industry has been responding by expanding high-LTV lending. Recently enhanced GSE programs, including Fannie Mae’s HomeReady program and Freddie Mac’s Home Possible and Home Possible Advantage programs, are designed to make home ownership more affordable for low- to moderate-income borrowers, particularly in low-income or under-served communities. These programs include features such as: (i) lower down payments; (ii) gifts and grants as an approved source of funds for down payment and closing costs; (iii) improved affordability through a reduced mortgage insurance coverage requirement and GSE risk-based pricing waivers; and (iv) homeownership education options. As a result of all of these factors, home purchases by first-time home buyers, who traditionally require mortgage loans with higher LTVs and may have higher debt-to-income ratios, are becoming an increasingly significant portion of the total market.

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As a percentage of our total NIW, the level of our purchase origination volume increased and our refinance origination volume decreased during 2017, compared to 2016. As a percentage of our total NIW, the volume of our NIW on mortgage loans with LTVs greater than 95% also increased during 2017, compared to 2016, primarily driven by the various factors discussed above. Despite these recent volume increases, the portion of our overall portfolio comprised of loans with LTVs greater than 95% has not significantly changed. During the second half of 2017, we also began to observe an increase in mortgage loans with higher debt-to-income ratios, including mortgage loans with debt-to-income ratios greater than 45%. However, based on our currently expected credit losses, we do not believe that these recent changes have materially impacted the overall credit quality of our portfolio.

Historical loan data indicates that credit scores and underwriting quality are key drivers of credit performance. As illustrated by the preceding chart, the FICO scores and internal risk grades of our primary RIF has significantly improved in business written after 2008. In addition, we have limited layered risk that combines multiple higher-risk attributes within the same loan, specifically low FICO scores combined with other higher risk characteristics, such that, for example, a de minimis amount of our primary RIF originated after 2008 relates to mortgages with (i) FICO scores less than 680 combined with cash-out refinancings or original LTVs greater than 95% or (ii) FICO scores less than or equal to 720 on an investment property or second home.

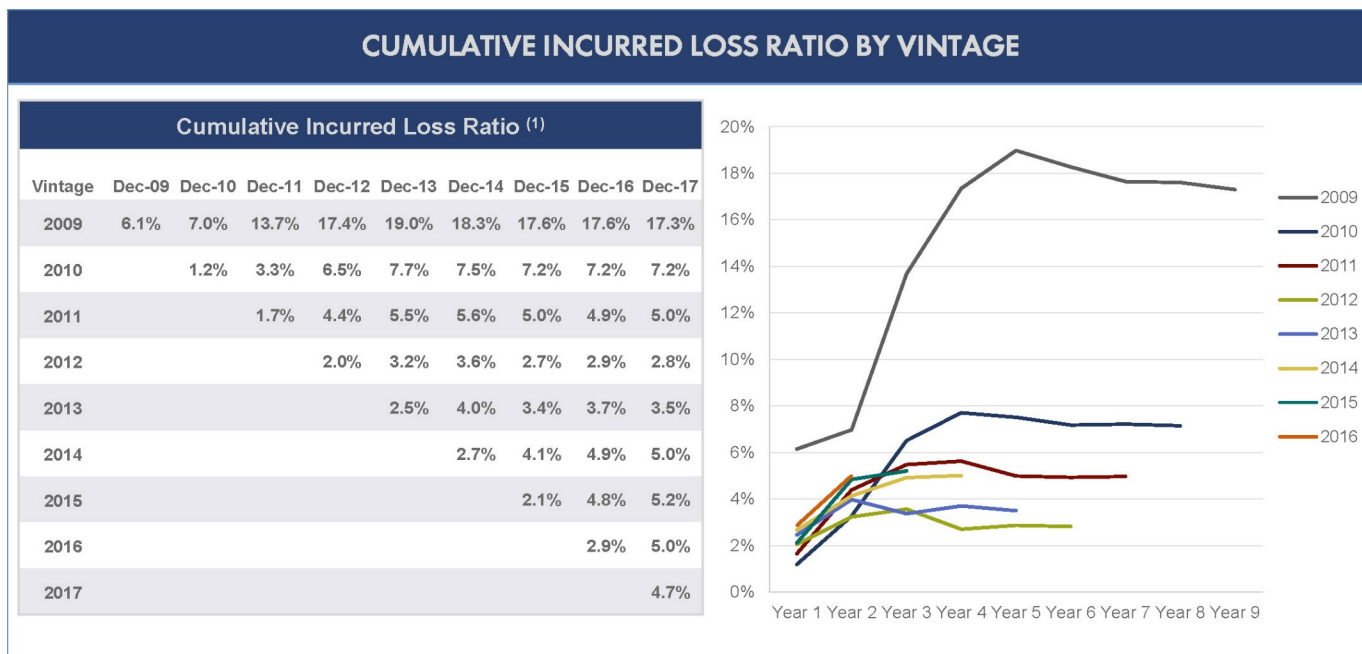
The chart below illustrates the composition of our direct primary mortgage insurance RIF at December 31, 2017, based on origination vintages.



- (1) In 2009, the GSEs began offering HARP loans, which allow a borrower who is not delinquent to refinance a mortgage if the borrower has been unable to take advantage of lower interest rates because the borrower’s home has decreased in value. Refinancings under the HARP programs have had a positive impact on the overall credit quality and composition of our mortgage insurance portfolio because the refinancing generally results in terms under which a borrower has a greater ability to pay and more financial flexibility to cover the loan obligations. We exclude HARP loans from our NIW for the period in which the refinance occurs. During 2017, new HARP loans accounted for \$79.6 million of newly refinanced loans that were not included in Radian Guaranty’s NIW for the period, compared to \$202.9 million for 2016. The HARP deadline for refinancing has been extended to December 31, 2018. See “Item 1. Business—Regulation—Federal Regulation—*Homeowner Assistance Programs*” for more information.

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Our expected future losses on our portfolios written after 2008, together with HARP refinancings, are significantly lower than those experienced on our NIW prior to 2009. The following charts illustrate the trends of our cumulative incurred loss ratios by year of origination and development year.



(1) Represents inception-to-date losses incurred as a percentage of net premiums earned.

The following tables provide selected information as of and for the periods indicated related to mortgage insurance NIW, RIF and IIF. Policy years represent the original policy years, and have not been adjusted to reflect subsequent HARP refinancing activity. Throughout this report, unless otherwise noted, RIF is presented on a gross basis and includes the amount ceded under reinsurance. NIW, RIF and IIF for direct Single Premiums include policies written on an individual basis (as each loan is originated) and on an aggregated basis (in which each individual loan in a group of loans is insured in a single transaction, typically after the loans have been originated).

(\$ in millions)	Year Ended December 31,					
	2017		2016		2015	
<b>Total primary NIW by FICO score</b>						
>=740 .....	\$ 32,928	61.1%	\$ 31,426	62.2%	\$ 25,683	62.0%
680-739 .....	17,641	32.7	16,001	31.7	12,954	31.3
620-679 .....	3,336	6.2	3,103	6.1	2,774	6.7
<b>Total Primary NIW .....</b>	<b>\$ 53,905</b>	<b>100.0%</b>	<b>\$ 50,530</b>	<b>100.0%</b>	<b>\$ 41,411</b>	<b>100.0%</b>

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(\$ in millions)	Year Ended December 31,		
	2017	2016	2015
<b>Percentage of primary NIW</b>			
Direct Monthly and Other Premiums . . . . .	77%	73%	69%
Direct Single Premiums . . . . .	23%	27%	31%
Net Single Premiums (1) . . . . .	15%	18%	31%
NIW for Purchases . . . . .	89%	78%	79%
NIW for Refinances . . . . .	11%	22%	21%
<b>LTV</b>			
95.01% and above . . . . .	13.2%	5.7%	3.0%
90.01% to 95.00% . . . . .	46.0%	47.5%	49.8%
85.01% to 90.00% . . . . .	28.5%	32.0%	34.0%
85.00% and below . . . . .	12.3%	14.8%	13.2%
<b>Primary risk written . . . . .</b>	<b>\$ 13,569</b>	<b>\$ 12,538</b>	<b>\$ 10,435</b>

(1) In 2016 and 2017, represents the percentage of direct Single Premium Policies written, after consideration of the Single Premium NIW ceded under the 2016 Single Premium QSR Transaction prior to its amendment, effective December 31, 2017, which increased the amount of ceded risk on performing loans for 2015 through 2017 vintages under the agreement from 35% to 65%. After consideration of this increase in the cession percentage, net Single Premium Policies represented 8% of NIW during 2017. See Note 8 of Notes to Consolidated Financial Statements for additional information.

(\$ in millions)	December 31,		
	2017	2016	2015
<b>Primary IIF</b>			
Direct Monthly and Other Premiums . . . . .	69%	68%	69%
Direct Single Premiums . . . . .	31%	32%	31%
Net Single Premiums (1) . . . . .	20%	25%	31%
<b>Total Primary IIF . . . . .</b>	<b>\$ 200,724</b>	<b>\$ 183,450</b>	<b>\$ 175,584</b>
<b>Persistency Rate</b> (12 months ended) . . . . .	81.1% (2)	76.7% (3)	78.8%
<b>Persistency Rate</b> (quarterly, annualized) (4) . . . . .	79.4% (2)	76.8% (5)	81.8%

- (1) Represents the percentage of single premium IIF, after giving effect to all reinsurance ceded.
- (2) During the third quarter of 2017, the scheduled final settlement date under the Freddie Mac Agreement occurred, resulting in a negative impact on the Persistency Rate due to the removal from RIF and IIF of most of the loans subject to the Freddie Mac Agreement. The Persistency Rate was also reduced by an increase in cancellations of Single Premium Policies due to increased cancellations identified by our ongoing servicer monitoring process for Single Premium Policies.
- (3) The Persistency Rate for the 12 months ended December 31, 2016 was less than in 2017 and 2015, primarily due to increased refinancing activity and the cancellations of Single Premium Policies. See “—*Net Premiums Written and Earned*” below.
- (4) The Persistency Rate on a quarterly, annualized basis may be impacted by seasonality or other factors, and may not be indicative of full-year trends.
- (5) The Persistency Rate annualized based on the quarter ended December 31, 2016 was less than in 2015, primarily due to the volume of Single Premium Policies that were cancelled during the fourth quarter of 2016, which were higher as compared to the same quarter in 2015.

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(\$ in millions)	December 31,					
	2017		2016		2015	
<b>Primary RIF by Premium Type</b>						
Direct Monthly and Other Premiums . . .	\$ 35,452	69.1%	\$ 32,136	68.8%	\$ 30,940	69.3%
Direct Single Premiums . . . . .	15,836	30.9	14,605	31.2	13,687	30.7
Total primary RIF . . . . .	<u>\$ 51,288</u>	<u>100.0%</u>	<u>\$ 46,741</u>	<u>100.0%</u>	<u>\$ 44,627</u>	<u>100.0%</u>
Net Single Premiums (1) . . . . .	\$ 8,320	19.3%	\$ 10,161	24.5%	\$ 12,846	30.2%
<b>Primary RIF by Internal Risk Grade</b>						
Prime . . . . .	\$ 49,674	96.9%	\$ 44,708	95.6%	\$ 42,170	94.5%
Alt-A and A minus and below . . . . .	1,614	3.1	2,033	4.4	2,457	5.5
Total primary RIF . . . . .	<u>\$ 51,288</u>	<u>100.0%</u>	<u>\$ 46,741</u>	<u>100.0%</u>	<u>\$ 44,627</u>	<u>100.0%</u>

(1) Represents the dollar amount and percentage, respectively, of Single Premium RIF, after giving effect to all reinsurance ceded.

(\$ in millions)	December 31,					
	2017		2016		2015	
<b>Total primary RIF by FICO score</b>						
>=740 . . . . .	\$ 30,225	58.9%	\$ 26,939	57.6%	\$ 25,467	57.1%
680-739 . . . . .	16,097	31.4	14,497	31.0	13,543	30.3
620-679 . . . . .	4,425	8.6	4,620	9.9	4,806	10.8
<=619 . . . . .	541	1.1	685	1.5	811	1.8
Total primary RIF . . . . .	<u>\$ 51,288</u>	<u>100.0%</u>	<u>\$ 46,741</u>	<u>100.0%</u>	<u>\$ 44,627</u>	<u>100.0%</u>
<b>Primary RIF on defaulted loans (1) . . . . .</b>	<u>\$ 1,389</u>		<u>\$ 1,363</u>		<u>\$ 1,625</u>	

(1) Excludes risk related to loans subject to the Freddie Mac Agreement.



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(\$ in millions)	December 31,					
	2017		2016		2015	
<b>Total primary RIF by LTV</b>						
95.01% and above . . . . .	\$ 4,704	9.2%	\$ 3,447	7.4%	\$ 3,249	7.3%
90.01% to 95.00% . . . . .	27,276	53.2	24,439	52.3	22,479	50.4
85.01% to 90.00% . . . . .	15,719	30.6	15,208	32.5	15,184	34.0
85.00% and below . . . . .	3,589	7.0	3,647	7.8	3,715	8.3
Total primary RIF . . . . .	<u>\$51,288</u>	<u>100.0%</u>	<u>\$46,741</u>	<u>100.0%</u>	<u>\$44,627</u>	<u>100.0%</u>
<b>Total primary RIF by policy year</b>						
2008 and prior . . . . .	\$ 7,159	14.0%	\$ 9,143	19.5%	\$11,178	25.0%
2009 . . . . .	298	0.6	468	1.0	736	1.7
2010 . . . . .	264	0.5	417	0.9	616	1.4
2011 . . . . .	682	1.3	917	2.0	1,294	2.9
2012 . . . . .	2,830	5.5	3,734	8.0	5,010	11.2
2013 . . . . .	4,557	8.9	5,902	12.6	8,056	18.1
2014 . . . . .	4,356	8.5	5,607	12.0	7,646	17.1
2015 . . . . .	7,096	13.8	8,469	18.1	10,091	22.6
2016 . . . . .	10,992	21.4	12,084	25.9	—	—
2017 . . . . .	13,054	25.5	—	—	—	—
Total primary RIF (1) . . . . .	<u>\$51,288</u>	<u>100.0%</u>	<u>\$46,741</u>	<u>100.0%</u>	<u>\$44,627</u>	<u>100.0%</u>

(1) At December 31, 2017, 2016 and 2015, consists of 97.3%, 97.0% and 96.1%, respectively, of RIF related to fixed-rate mortgages.

*Net Premiums Written and Earned.* Net premiums written in 2017 increased compared to 2016, primarily due to a decrease in ceded premiums written, combined with the increase in our IIF. Net premiums written decreased in 2016 compared to 2015, primarily due to \$233.2 million of ceded premiums written under the 2016 Single Premium QSR Transaction, partially offset by the increase in our IIF in 2016.

Ceded premiums written in all years included the cession of premiums from prior years' vintages. Ceded premiums written in 2017 included a \$145.7 million increase due to the amendment of the 2016 Single Premium QSR Transaction effective as of December 31, 2017, which increased the amount of ceded risk on performing loans for 2015 through 2017 vintages under the agreement from 35% to 65%. Ceded premiums written in 2016 included the implementation of the 2016 Single Premium QSR Transaction, effective as of January 1, 2016. At its initial implementation, the 2016 Single Premium QSR Transaction resulted in ceding certain Single Premium IIF written from January 1, 2012 to January 1, 2016, which negatively impacted net premiums written in 2016. See Note 8 of Notes to Consolidated Financial Statements for additional information regarding our reinsurance transactions.

Net premiums earned increased in 2017, compared to 2016, primarily as a result of increased IIF and decreased ceded premiums, net of profit commissions, partially offset by less accelerated revenue recognition due to fewer Single Premium Policy cancellations during 2017.

Net premiums earned increased in 2016, compared to 2015, primarily as a result of the impact of the accelerated recognition of premiums earned on Single Premium Policies that were cancelled during the year, which was higher than in 2015. This increase was partially offset by increased ceded premiums, net of profit commission, primarily associated with the 2016 Single Premium QSR Transaction. Net premiums earned were also impacted by our increased level of IIF in 2016, as compared to 2015.

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The table below provides additional information about the components of net premiums earned for the periods indicated.

<u>(in thousands)</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
<b>Net premiums earned—insurance:</b>			
<b>Direct</b>			
Premiums earned, excluding revenue from cancellations . . . . .	\$ 929,668	\$ 902,269	\$ 898,811
Single Premium Policy cancellations . . . . .	60,348	96,824	74,834
Direct premiums earned . . . . .	<u>990,016</u>	<u>999,093</u>	<u>973,645</u>
<b>Ceded</b>			
Premiums earned, excluding revenue from cancellations . . . . .	(57,509)	(70,714)	(59,207)
Single Premium Policy cancellations . . . . .	(27,576)	(38,050)	(6,566)
Profit commission—reinsurance . . . . .	27,814	31,405	7,993
Ceded premiums, net of profit commission . . . . .	<u>(57,271)</u>	<u>(77,359)</u>	<u>(57,780)</u>
Assumed premiums earned . . . . .	28	35	43
<b>Total net premiums earned—insurance . . . . .</b>	<b><u>\$ 932,773</u></b>	<b><u>\$ 921,769</u></b>	<b><u>\$ 915,908</u></b>

We experienced a decrease in our total mix of Single Premium Policies to 23% of our NIW for 2017, as compared to 27% for 2016. We expect our production level for Single Premium Policies to vary over time based on various factors, which include risk-return and risk-mix considerations, as well as market conditions.

We enter into reinsurance transactions as a cost-effective strategy to efficiently manage our capital position and risk profile, including managing Radian Guaranty’s Risk-to-capital and its position under the PMIERS financial requirements. In the first quarter of 2016, Radian Guaranty entered into the 2016 Single Premium QSR Transaction in order to proactively manage the risk and return profile of Radian Guaranty’s insured portfolio and to manage its position under the PMIERS financial requirements. Radian Guaranty began ceding business under this agreement effective January 1, 2016.

Effective December 31, 2017, we amended the 2016 Single Premium QSR Transaction to increase the amount of ceded risk on performing loans under the agreement from 35% to 65% for the 2015 through 2017 vintages. As of the effective date, the result of this amendment increased the amount of risk ceded on Single Premium Policies, including for the purposes of calculating any future ceding commissions and profit commissions that Radian Guaranty will earn. It will also increase the future amounts of ceded earned premiums and ceded losses. See “Liquidity and Capital Resources—*Radian Group—Short-Term Liquidity Needs*” for more information about the impact of the 2016 Single Premium QSR Transaction amendment on our PMIERS financial requirements.

On December 31, 2017, our ability to cede Single Premium NIW under the 2016 Single Premium QSR Transaction expired. In anticipation of this expiration, in October 2017 we entered into the 2018 Single Premium QSR Transaction. Under the 2018 Single Premium QSR Transaction, beginning with the business written in January 2018, we expect to cede 65% of our Single Premium NIW, subject to certain conditions and a limitation on ceded premiums written equal to \$335 million for policies issued between January 1, 2018 and December 31, 2019.

The 2016 and 2018 Single Premium QSR Transactions are expected to increase Radian Guaranty’s return on required capital for its Single Premium Policies. In future periods, the impact of these transactions will vary depending on the level of ceded RIF, as well as the levels of prepayments and incurred losses on the reinsured portfolio, among other factors.

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The following table provides information related to the premium impact of our reinsurance transactions. See Note 8 of Notes to Consolidated Financial Statements for more information about our reinsurance transactions, including the ceded amounts related to the QSR Transactions.

	At or For the Year Ended December 31,		
	2017	2016	2015
<b>QSR Transactions</b>			
% of direct premiums written . . . . .	1.9%	2.8%	3.0%
% of total direct premiums earned . . . . .	2.9%	4.3%	4.8%
<b>2016 Single Premium QSR Transaction</b>			
% of total direct premiums written . . . . .	18.8%	23.4%	N/A
% of total direct premiums earned . . . . .	2.8%	3.0%	N/A
<b>First-Lien Captives</b>			
% of total direct premiums written . . . . .	0.1%	0.4%	1.0%
% of total direct premiums earned . . . . .	0.1%	0.4%	1.0%

*Net Investment Income.* For 2017, net investment income increased compared to 2016, as we have continued to refine our investment liquidity targets and cash management strategies, consistent with rising short-term rates and an increased book yield in our portfolio. Net investment income increased in 2016 compared to 2015, primarily due to our extending portfolio duration as we progressed toward more fully investing our portfolio. All periods include an allocation to the Mortgage Insurance segment of net investment income from investments held at Radian Group.

*Provision for Losses.* The following table details the financial impact of the significant components of our provision for losses for the periods indicated :

<b>(In millions)</b>	Year Ended December 31,		
	2017	2016	2015
Current year defaults (1) . . . . .	\$ 185.5	\$ 206.4	\$ 229.1
Prior year defaults (2) . . . . .	(49.3)	(3.5)	(29.7)
Second-lien mortgage loan PDR and other . . . . .	0.0	1.3	(1.0)
Provision for losses . . . . .	\$ 136.2	\$ 204.2	\$ 198.4
Loss ratio (3) . . . . .	14.6%	22.2%	21.7%

- (1) Related to defaulted loans with a most recent default notice dated in the year indicated. For example, if a loan had defaulted in a prior year, but then subsequently cured and later re-defaulted in the current year, that default would be considered a current year default.
- (2) Related to defaulted loans with a default notice dated in a year earlier than the year indicated, which have been continuously in default since that time.
- (3) Provision for losses as a percentage of net premiums earned.

Our mortgage insurance provision for losses for 2017 decreased by \$68.0 million as compared to 2016. Reserves established for new default notices were the primary driver of our total incurred losses for 2017 and 2016. Current year primary defaults increased by 5.9% for 2017, compared to 2016, due to elevated new default notices in 2017 in the FEMA Designated Areas associated with Hurricanes Harvey and Irma received subsequent to those two natural disasters, which occurred during the third quarter of 2017. Due to exclusions in our Master Policies for physical damage, including damage caused by floods or physical damage, we do not believe that these elevated defaults will result in a material number of incremental claims paid. As a result, based on our past experience with similar natural disasters, we assumed a 3% gross Default to Claim Rate for new primary defaults in FEMA Designated Areas associated with Hurricanes Harvey and Irma received subsequent to those two natural disasters. Radian has been working with loan servicers to obtain information about forbearance plans and the status of the properties. See “—Overview” for additional information.

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For all areas other than FEMA Designated Areas associated with Hurricanes Harvey and Irma, the number of total new primary mortgage insurance defaults in our insured portfolio decreased by 7.2%, as compared to 2016. Our gross Default to Claim Rate assumption for new primary defaults, excluding the new primary defaults in FEMA Designated Areas associated with Hurricanes Harvey and Irma received subsequent to those two natural disasters, was 10% as of December 31, 2017, compared to 12% as of December 31, 2016. This reduction in estimated gross Default to Claim Rate assumptions, which was based on observed trends, contributed to the reduction in the portion of our provision for losses related to new defaults in 2017, compared to 2016. In addition, the 2017 provision on current year defaults includes approximately \$14 million related to pool commutations.

In addition to the positive trends in our provision for losses for current year defaults for 2017 and 2016, we experienced positive reserve development on prior year defaults, primarily due to reductions in certain Default to Claim Rate assumptions based on observed trends of higher Cures than were previously estimated on those prior year defaults.

Our mortgage insurance provision for losses for 2016 increased by \$5.8 million as compared to 2015. Reserves established for new default notices were the primary driver of our total incurred losses for 2016 and 2015. Current year primary new defaults decreased by 4.9% for 2016, compared to 2015. In addition, our gross Default to Claim Rate assumption for new primary defaults was 12% as of December 31, 2016, compared to 13% as of December 31, 2015. This reduction in estimated Default to Claim Rates, which was based on observed claim development trends, contributed to the reduction in the portion of our provision for losses related to new defaults in 2016, as compared to 2015.

The impact of the reductions in losses for current year defaults in 2016 was partially offset by a decline in the favorable reserve development from prior year defaults, which, although still positive, provided significantly less of a benefit to our provision for losses in 2016 as compared to 2015. The favorable development on prior year defaults observed in 2016 was driven primarily by a decrease in our actual and estimated Default to Claim Rate assumptions on prior year defaults, as a result of higher Cures than were previously estimated, partially offset by a decline in our estimates for future Rescissions and Claim Denials. The \$29.6 million favorable development on prior year defaults observed in 2015 was driven primarily by a decrease in our actual and estimated Default to Claim Rate assumptions on prior year defaults, as a result of higher Cures than were previously estimated, partially offset by a decline in our estimates for future Rescissions and Claim Denials.

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The following table shows the number of primary loans that we have insured, the number of primary and pool loans in default and the percentage of primary loans in default as of the dates indicated:

	December 31,		
	2017	2016	2015
<b>Default Statistics—Primary Insurance:</b>			
Total primary insurance			
Prime			
Number of insured loans . . . . .	913,408	849,227	816,797
Number of loans in default . . . . .	20,269	19,101	22,223
Percentage of loans in default . . . . .	2.22%	2.25%	2.72%
Alt-A and A minus and below			
Number of insured loans . . . . .	42,318	53,651	64,313
Number of loans in default . . . . .	7,653	10,004	13,080
Percentage of loans in default . . . . .	18.08%	18.65%	20.34%
Total primary insurance			
Number of insured loans (1) . . . . .	955,726	902,878	881,110
Number of loans in default (2) (3). . . . .	27,922	29,105	35,303
Percentage of loans in default . . . . .	2.92%	3.22%	4.01%
<b>Default Statistics—Pool Insurance:</b>			
Number of loans in default . . . . .	2,117 (4)	4,286	5,796

- (1) Includes 253; 5,850; and 7,353 insured loans subject to the Freddie Mac Agreement at December 31, 2017, 2016 and 2015, respectively.
- (2) Excludes 100; 1,639; and 2,821 loans that are in default at December 31, 2017, 2016 and 2015, respectively, subject to the Freddie Mac Agreement, and for which we no longer have claims exposure. During the third quarter of 2017, the scheduled final settlement date under the Freddie Mac Agreement occurred. As of December 31, 2017, the remaining loans subject to the Freddie Mac Agreement were those with Loss Mitigation Activity and pending claims activity already in process but not yet finalized.
- (3) Included in this amount at December 31, 2017 are the defaults in the FEMA Designated Areas associated with Hurricanes Harvey and Irma, which occurred during the third quarter of 2017. At December 31, 2017, 2016 and 2015, defaults in these areas were 7,051; 3,321; and 4,214, respectively.
- (4) Decrease primarily due to pool commutations that took place during the year.

For all areas other than the FEMA Designated Areas associated with Hurricanes Harvey and Irma, we currently expect total new defaults for 2018 to continue to decrease, although the rate of decrease may moderate. This is due, in part, to the shift in our portfolio composition toward more recent vintages for which we expect increasing levels of new defaults, consistent with typical default seasoning patterns.

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The following table shows a rollforward of the number of our primary loans in default, including new defaults from our Legacy Portfolio and Post-legacy Portfolio:

	Year Ended December 31,		
	2017	2016	2015
Beginning default inventory . . . . .	29,105	35,303	45,319
Plus: New defaults (1)			
Legacy Portfolio new defaults . . . . .	25,300	29,772	35,168
Post-legacy new defaults . . . . .	17,588	10,731	7,439
Total new defaults . . . . .	42,888	40,503	42,607
Less: Cures (1) . . . . .	37,464	38,589	40,607
Less: Claims paid (2) (3) . . . . .	6,477	8,223	13,492
Less: Rescissions and Claim Denials, net of (Reinstatements) (3) . . . . .	130	(111)	46
Less: Rescissions and Claim Denials, net of (Reinstatements), related to the BofA Settlement Agreement (4) . . . . .	—	—	(1,522)
Ending default inventory . . . . .	27,922	29,105	35,303

- (1) Included in this amount for the year ended December 31, 2017 are the new defaults and cures in the FEMA Designated Areas associated with Hurricanes Harvey and Irma, which occurred during the third quarter of 2017. For the years ended December 31, 2017, 2016 and 2015, new defaults and cures in these areas were as follows:

	Year Ended December 31,		
	2017	2016	2015
New defaults . . . . .	8,862	3,852	4,017
Cures . . . . .	4,366	3,727	3,993

- (2) Includes those charged to a deductible or captive and, for 2015, claim payments related to the BofA Settlement Agreement.
- (3) Net of any previous Rescission and Claim Denials that were reinstated during the period (excluding activity related to the BofA Settlement Agreement). Such reinstated Rescissions and Claim Denials may ultimately result in a paid claim.
- (4) Includes Rescissions, Claim Denials and Reinstatements on the population of loans subject to the BofA Settlement Agreement.

Our aggregate weighted-average net Default to Claim Rate assumption for our primary loans used in estimating our reserve for losses, which is net of estimated Claim Denials and Rescissions, was approximately 31%, 42% and 46%, at December 31, 2017, 2016 and 2015, respectively. The change in our Default to Claim Rate in 2017 resulted primarily from the lower Default to Claim Rate of 3% on new primary defaults in FEMA Designated Areas associated with Hurricanes Harvey and Irma subsequent to those two natural disasters. We develop our Default to Claim Rate estimates on defaulted loans based on models that use a variety of loan characteristics to determine the likelihood that a default will reach claim status. Our Default to Claim Rate estimates on defaulted loans are mainly developed based on the Stage of Default and Time in Default of the underlying defaulted loans, as measured by the progress toward foreclosure sale and the number of months in default. As of December 31, 2017, our gross Default to Claim Rate assumptions for our primary portfolio, other than for new primary defaults in FEMA Designated Areas associated with Hurricanes Harvey and Irma received subsequent to those two natural disasters, ranged from 10% for new defaults, up to 62% for other defaults not in foreclosure stage, and 81% for Foreclosure Stage Defaults. As of December 31, 2016, these gross Default to Claim Rate assumptions were 12% for new defaults, up to 62% for other defaults not in foreclosure stage, and 81% for Foreclosure Stage Defaults.



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The following tables show additional information about our primary loans in default as of the dates indicated:

	December 31, 2017					
	Total		Foreclosure Stage Defaulted Loans	Cure % During the 4th Quarter	Reserve for Losses	% of Reserve
	#	%	#	%	\$	%
<b>(\$ in thousands)</b>						
<b>Missed payments:</b>						
Three payments or less . . . .	13,004	46.6%	172	31.7%	\$ 89,412	19.3%
Four to 11 payments . . . . .	7,528	27.0	426	20.9	99,759	21.5
12 payments or more . . . . .	6,651	23.8	1,933	6.3	234,895	50.6
Pending claims . . . . .	739	2.6	N/A	3.1	40,144	8.6
Total . . . . .	<u>27,922</u>	<u>100.0%</u>	<u>2,531</u>		<u>464,210</u>	<u>100.0%</u>
IBNR and other . . . . .					16,021	
LAE . . . . .					13,349	
Total primary reserves . . . .					<u>\$ 493,580</u>	

December 31, 2017		
Key Reserve Assumptions		
Gross Default to Claim Rate %	Net Default to Claim Rate %	Claim Severity %
33%	31%	98%

	December 31, 2016					
	Total		Foreclosure Stage Defaulted Loans	Cure % During the 4th Quarter	Reserve for Losses	% of Reserve
	#	%	#	%	\$	%
<b>(\$ in thousands)</b>						
<b>Missed payments:</b>						
Three payments or less . . . .	10,116	34.7%	166	29.6%	\$ 100,649	15.8%
Four to 11 payments . . . . .	7,763	26.7	534	18.9	121,636	19.1
12 payments or more . . . . .	10,034	34.5	2,696	5.1	355,005	55.8
Pending claims . . . . .	1,192	4.1	N/A	2.2	59,030	9.3
Total . . . . .	<u>29,105</u>	<u>100.0%</u>	<u>3,396</u>		<u>636,320</u>	<u>100.0%</u>
IBNR and other . . . . .					71,107	
LAE . . . . .					18,630	
Total primary reserves . . . .					<u>\$ 726,057</u>	

December 31, 2016		
Key Reserve Assumptions		
Gross Default to Claim Rate %	Net Default to Claim Rate %	Claim Severity %
45%	42%	101%

N/A – Not applicable

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Our net Default to Claim Rate and loss reserve estimate incorporates our expectations with respect to future Rescissions, Claim Denials and Claim Curtailments. Our estimate of such net future Loss Mitigation Activities reduced our loss reserve as of December 31, 2017 and 2016 by approximately \$21 million and \$39 million, respectively. These expectations are based primarily on our recent experience with respect to the number of claims that have been denied due to the policyholder's failure to submit sufficient documentation to perfect a claim within the time period permitted under our Master Policies and also our recent experience with respect to the number of insurance certificates that have been rescinded due to fraud, underwriter negligence or other factors. See Note 11 of Notes to Consolidated Financial Statements.

The impact to our mortgage insurance reserves due to estimated future Rescissions, Claim Denials and Claim Curtailments incorporates our expectations regarding the number of policies that we expect to reinstate as a result of our claims rebuttal process. The level of Loss Mitigation Activities has been declining in recent periods as our defaulted Legacy Portfolio continues to decline, and we expect this trend to continue.

Our reported Rescission, Claim Denial and Claim Curtailments activity in any given period is subject to challenge by our lender and servicer customers through our claims rebuttal process. In addition, we are at times engaged in discussions with our lender and servicer customers regarding our Loss Mitigation Activities. Unless a liability associated with such activities or discussions becomes probable and can be reasonably estimated, we consider our claim payments and our Rescissions, Claim Denials and Claim Curtailments to be resolved for financial reporting purposes. In accordance with the accounting standard regarding contingencies, we accrue for an estimated loss when we determine that the loss is probable and can be reasonably estimated.

On September 16, 2014, Radian Guaranty entered into the BofA Settlement Agreement in order to resolve various actual and potential claims or disputes related to the parties' respective rights and duties as to mortgage insurance coverage on the specific population of loans covered by the agreement. Implementation of the agreement commenced on February 1, 2015 and cash payments under the agreement were substantially completed by December 31, 2015. We do not expect the BofA Settlement Agreement to have a material impact on our future results of operations or cash flows. See Note 11 of Notes to Consolidated Financial Statements for additional information about the BofA Settlement Agreement.

We expect that a portion of previously rescinded policies will be reinstated and previously denied claims will be resubmitted with the required documentation and ultimately paid; therefore, we have incorporated this expectation into our IBNR reserve estimate. Our IBNR reserve estimate was \$10.4 million, \$14.3 million and \$26.6 million at December 31, 2017, 2016 and 2015, respectively.

Factors that impact the severity of a claim include, but are not limited to: (i) the size of the loan; (ii) the amount of mortgage insurance coverage placed on the loan; (iii) the amount of time between default and claim during which we are expected to cover interest (capped at two years under our Prior Master Policy and capped at three years under our 2014 Master Policy) and certain expenses; and (iv) the impact of certain loss management activities with respect to the loan. The average Claim Severity experienced for loans covered by our primary insurance was 104.7% for 2017, compared to 104.1% in 2016 and 105.8% in 2015.

Our mortgage insurance total loss reserve as a percentage of our mortgage insurance total RIF was 1.0% at December 31, 2017, compared to 1.6% at December 31, 2016 and 2.1% at December 31, 2015. See Note 11 of Notes to Consolidated Financial Statements for information regarding our reserves for losses by category and a reconciliation of our Mortgage Insurance segment's beginning and ending reserves for losses and LAE.

Our primary reserve per default (calculated as primary reserve excluding IBNR and other reserves divided by the number of primary defaults) was \$17,103, \$22,503 and \$24,019 at December 31, 2017, 2016 and 2015, respectively. The \$17,103 primary reserve per default at December 31, 2017, includes the impact of reserves and defaults related to the FEMA Designated Areas associated with Hurricanes Harvey and Irma. Excluding the impact from new defaults received subsequent to Hurricanes Harvey and Irma in these FEMA Designated Areas, this amount would be approximately \$20,500.

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Total mortgage insurance claims paid in 2017 of \$390.4 million have decreased from claims paid of \$417.6 million in 2016, primarily due to the decline in the outstanding default inventory, partially offset by the payment of \$54.8 million that, as expected, was made during 2017 in connection with the scheduled final settlement of the Freddie Mac Agreement. See “Liquidity and Capital Resources—*Mortgage Insurance*” for more information. Total mortgage insurance claims paid in 2016 of \$417.6 million decreased from claims paid of \$764.7 million in 2015, primarily due to the completion of the reinstatement activities required by the BofA Settlement Agreement, which increased claims paid from February 2015 through December 31, 2015. Although expected claims are included in our reserve for losses, the timing of claims paid is subject to fluctuation from period to period, based on the rate that defaults cure and other factors (as described in “Item 1. Business—Mortgage Insurance—Defaults and Claims”) that make the timing of paid claims difficult to predict. Depending on those factors, we currently expect to pay claims of less than \$300 million for the full year of 2018, excluding any payments negotiated under future commutation agreements.

The following table shows net claims paid by product and the average claim paid by product for the periods indicated:

<b>(In thousands)</b>	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Net claims paid: (1)			
Prime . . . . .	\$ 182,338	\$ 252,583	\$ 281,971
Alt-A and A minus and below . . . . .	96,102	140,056	139,232
Total primary claims paid . . . . .	278,440	392,639	421,203
Pool . . . . .	10,687	22,120	34,870
Other (2) . . . . .	(1,937)	(384)	(323)
Subtotal . . . . .	287,190	414,375	455,750
Impact of captive terminations . . . . .	645	(2,418)	(12,065)
Impact of commutations (3) . . . . .	102,545	5,605	320,983
Total net claims paid . . . . .	\$ 390,380	\$ 417,562	\$ 764,668
Average net claim paid: (1) (4)			
Prime . . . . .	\$ 49.2	\$ 47.5	\$ 46.4
Alt-A and A minus and below . . . . .	54.1	52.3	49.4
Total average net primary claim paid . . . . .	50.8	49.1	47.3
Pool . . . . .	57.8	51.9	58.5
Other (2) . . . . .	(44.0)	(8.7)	(7.5)
Total average net claim paid . . . . .	\$ 50.3	\$ 48.9	\$ 47.8
Average direct primary claim paid (4) (5) . . . . .	\$ 51.1	\$ 49.5	\$ 48.4
Average total direct claim paid (4) (5) . . . . .	\$ 50.6	\$ 49.3	\$ 48.8

- (1) Net of reinsurance recoveries and other recoveries.
- (2) Primarily related to net recoveries collected on claims paid in prior years on second-lien mortgage loans.
- (3) Includes the impact of commutations and captive terminations. For 2017, includes payments that, as expected, were made in connection with the final settlement of the Freddie Mac Agreement, as well as payments to commute mortgage insurance coverage on certain performing and non-performing loans on which we had Pool Insurance risk. For 2015, includes the impact of the BofA Settlement Agreement from the February 1, 2015 implementation date.
- (4) Calculated without giving effect to the impact of the termination of captive transactions and commutations.
- (5) Before reinsurance recoveries.

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Notwithstanding historical trends, our portfolio originated before 2009 experienced default and claim activity sooner and to a significantly greater extent than had been the case historically for our books of business prior to the financial crisis. For the periods indicated, the following tables show: (i) cumulative direct claims paid by us on our primary insured book of business at the end of each successive year after origination, expressed as a percentage of the cumulative premiums written by us in each year of origination and (ii) direct claims paid by policy origination year. Direct claims paid represent first-lien claims paid prior to reinsurance recoveries and captive termination payments, and exclude LAE expenses.

Direct Claims Paid vs. Premiums Written—Primary Insurance										
Year of Origination	End of 1st year	End of 2nd year	End of 3rd year	End of 4th year	End of 5th year	End of 6th year	End of 7th year	End of 8th year	End of 9th year	End of 10th year
2008	0.2%	5.0%	29.2%	61.2%	78.0%	97.8%	106.2%	111.8%	112.1%	111.6%
2009	0.0%	1.3%	3.9%	7.6%	11.7%	14.2%	15.3%	15.9%	16.4%	—
2010	0.0%	0.4%	1.3%	3.1%	4.9%	5.5%	6.0%	6.3%	—	—
2011	0.0%	0.2%	1.1%	2.0%	2.7%	3.2%	3.6%	—	—	—
2012	0.0%	0.1%	0.5%	0.8%	1.2%	1.5%	—	—	—	—
2013	0.0%	0.1%	0.4%	0.9%	1.3%	—	—	—	—	—
2014	0.0%	0.0%	0.6%	1.4%	—	—	—	—	—	—
2015	0.0%	0.1%	0.6%	—	—	—	—	—	—	—
2016	0.0%	0.1%	—	—	—	—	—	—	—	—
2017	—	—	—	—	—	—	—	—	—	—

(\$ in thousands)	December 31,					
	2017		2016		2015	
Direct claims paid by origination year (first-lien):						
2008 and prior	\$ 358,067	94.0%	\$ 393,063	95.5%	\$ 729,751	97.9%
2009	3,970	1.0	4,156	1.0	6,707	0.9
2010	1,332	0.3	1,644	0.4	1,987	0.3
2011	1,484	0.4	1,835	0.5	2,376	0.3
2012	2,943	0.8	3,380	0.8	2,213	0.3
2013	4,638	1.2	4,561	1.1	1,909	0.3
2014	5,271	1.4	2,961	0.7	102	—
2015	3,143	0.8	—	—	—	—
2016	254	0.1	—	—	—	—
2017	—	—	—	—	—	—
Total direct claims paid (1)	<u>\$ 381,102</u>	<u>100.0%</u>	<u>\$ 411,600</u>	<u>100.0%</u>	<u>\$ 745,045</u>	<u>100.0%</u>

(1) Represents total first-lien direct claims paid, excluding impact of reinsurance and LAE expenses.

*Other Operating Expenses.* Other operating expenses for 2017, as compared to 2016, reflect an increase primarily due to: (i) increases in technology expenses associated with a significant investment in upgrading our systems; (ii) higher allocated corporate operating expenses, primarily due to expenses associated with the retirement and consulting agreements entered into with our former Chief Executive Officer; (iii) expenses accrued to defend and resolve certain outstanding legal matters; and (iv) a decrease in ceding commissions. These increases were partially offset by lower compensation expense in 2017, including variable incentive-based compensation.

Other operating expenses for 2016 decreased compared to 2015, primarily as a result of the benefit of ceding commissions from the 2016 Single Premium QSR Transaction, partially offset by increases in compensation-related expense and technology expenses associated with a significant investment in upgrading our systems.

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*Interest Expense.* These amounts reflect the allocated portion of interest on Radian Group’s long-term debt to our Mortgage Insurance segment, excluding the Senior Notes due 2019. The allocated interest decreased in 2017 and 2016 compared to 2015. These decreases were primarily due to the capital management transactions described in “—Results of Operations—Consolidated—Interest Expense.”

**Results of Operations—Services**

The following table summarizes our Services segment’s results of operations for the years ended December 31, 2017, 2016 and 2015:

<b>(In millions)</b>	<b>Year Ended December 31,</b>			<b>\$ Change</b>	
	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>Favorable (Unfavorable)</b>	
				<b>2017 vs. 2016</b>	<b>2016 vs. 2015</b>
Adjusted pretax operating income (loss) (1) . . .	\$ (33.8)	\$ (20.2)	\$ (0.2)	\$ (13.6)	\$ (20.0)
Services revenue . . . . .	161.8	177.2	163.1	(15.4)	14.1
Cost of services . . . . .	105.8	115.4	97.3	9.6	(18.1)
Gross profit on services . . . . .	56.0	61.8	65.8	(5.8)	(4.0)
Other operating expenses (2) . . . . .	65.3	64.3	48.3	(1.0)	(16.0)
Restructuring and other exit costs (3) . . . . .	6.8	—	—	(6.8)	—

- (1) Our senior management uses adjusted pretax operating income (loss) as our primary measure to evaluate the fundamental financial performance of each of our business segments.
- (2) Includes allocation of corporate operating expenses of \$14.3 million, \$8.5 million and \$4.8 million for 2017, 2016 and 2015, respectively.
- (3) Primarily includes employee severance and related benefit costs. Does not include impairment of long-lived assets and loss from the sale of a business line, which are not components of adjusted pretax operating income.

Our Services segment is a fee-for-service business that offers a broad array of both mortgage and real estate services to market participants across the mortgage and real estate value chain, primarily through Clayton and its subsidiaries, including Green River Capital, Red Bell and ValuAmerica. In connection with the restructuring of our Services business, we have refined our Services business strategy going forward to focus on our core mortgage and real estate services. These services provide mortgage lenders, financial institutions, mortgage and real estate investors and government entities, among others, with information and other resources and services that are used to originate, evaluate, acquire, securitize, service and monitor residential real estate and loans secured by residential real estate.

The services that we will no longer offer as a result of restructuring our Services business have not had a material impact on our consolidated cash flows or results of operations in recent periods. Therefore, as compared to our results in 2016 or 2015, there was no material impact on our consolidated cash flows or results of operations from discontinuing these services. See “Overview—Operating Environment and Business Strategy” for more information. See Note 1 of Notes to Consolidated Financial Statements, “Item 1. Business—Services—Services Business Overview” and “Overview—Other 2017 Developments” for additional information regarding the Services segment.

*Adjusted pretax operating income (loss).* Our Services segment’s adjusted pretax operating loss was \$33.8 million in 2017 compared to adjusted pretax operating losses of \$20.2 million in 2016 and \$0.2 million in 2015. The increase in our adjusted pretax operating loss in 2017, as compared to 2016, was primarily driven by: (i) restructuring and other exit costs and (ii) decreased gross profit, as discussed further below. The increase in our adjusted pretax operating loss in 2016 as compared to 2015 was primarily driven by: (i) increases in other operating expenses and (ii) decreases in gross profit.

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*Services Revenue.* Revenue decreased in 2017, as compared to 2016, primarily due to the decline in volume in: (i) loan review; (ii) REO asset management; and (iii) servicer and loan surveillance services. The decline in loan review volume was primarily driven by a decline in demand for outsourcing because the market decline in refinance origination volume has provided our customers with excess internal capacity to perform these services in-house. The decline in REO asset management volume was primarily driven by a decline in REO asset inflow reflecting current market conditions. Our surveillance business is transactional and the decrease in surveillance services volume was primarily due to fewer transactions and pricing changes with one of our top 10 Services customers. These decreases were partially offset by an increase in title and settlement services and an increase in valuation services.

Revenue increased in 2016 as compared to 2015, primarily due to the inclusion of a full year of operations in 2016 for Red Bell and ValuAmerica, which were acquired in March 2015 and October 2015, respectively. This increase was partially offset by decreased activity in the single family rental securitization market and slight decreases in loan review and surveillance services.

For the year ended December 31, 2017, the top 10 Services customers (which include our affiliates) generated approximately 49% of the Services segment's revenues, as compared to 52% for 2016 and 48% for 2015. Approximately 4%, 5% and 4% of services revenue on a segment basis for the years ended December 31, 2017, 2016 and 2015, respectively, related to sales to our affiliates, and has been eliminated in our consolidated results. The largest single customer generated approximately 11% of the services revenue for the years ended December 31, 2017 and December 31, 2016, as compared to 9% for the year ended December 31, 2015.

*Cost of Services.* Our cost of services is primarily affected by our level of services revenue. Our cost of services primarily consists of employee compensation and related payroll benefits, including the cost of billable labor assigned to revenue-generating activities and, to a lesser extent, other costs of providing services such as travel and related expenses incurred in providing client services and costs paid to outside vendors, data acquisition costs and other compensation-related expenses to maintain software application platforms that directly support our businesses. The level of these costs may fluctuate if market rates of compensation change, or if there is decreased availability or a loss of qualified employees.

*Gross Profit on Services.* For both the years ended December 31, 2017 and 2016 our gross profit on services represented 35% of total Services revenue. Gross profit in 2017 was primarily impacted by the shift in mix of services, including a decline in revenue related to REO asset management and a decline in servicer and loan surveillance revenue, partially offset by: (i) an increase in title and settlement services; (ii) an increase in valuation services; and (iii) a reduction in cost of services related to the restructuring actions taken during 2017. Gross profit on services decreased from 40% in 2015 to 35% in 2016 primarily due to a shift in the mix of services and a decrease in higher margin services revenue volumes.

*Other Operating Expenses.* Other operating expenses primarily consist of compensation costs not classified as cost of services because they are related to employees, such as sales and corporate employees, who are not directly involved in providing client services. Compensation-related costs for 2017 represented 50% of the segment's other operating expenses, compared to 55% and 57% for 2016 and 2015, respectively. Compensation-related costs for 2017 compared to 2016 and 2015 decreased as a percentage of other operating expenses, primarily because of a reduction in force in 2016, combined with the restructuring actions taken in 2017.

Although compensation-related costs for 2016 compared to 2015 decreased as a percentage of other operating expenses, primarily due to a reduction in force during 2016, the decrease was partially offset by increased expenses in 2016 associated with ValuAmerica and Red Bell which were acquired in October 2015 and March 2015, respectively, as well as, to a lesser extent, an increase in underwriting expenses.

Other operating expenses also include other selling, general and administrative expenses, depreciation, and allocations of corporate general and administrative expenses. Other operating expenses for 2017 include allocations of corporate operating expenses of \$14.3 million, compared to \$8.5 million and \$4.8 million for 2016 and 2015, respectively. The increase in 2017, as compared to 2016, is primarily due to: (i) an increase in total corporate expenses, primarily due to expenses associated with the retirement and consulting agreements entered into with our former Chief Executive Officer and (ii) an increase in the proportion of corporate expenses allocated to the Services segment. The increase in 2016, as compared to 2015, is primarily due to an increase in the portion of corporate expense allocated to the Services segment.

*Restructuring and other exit costs.* Restructuring and other exit costs were incurred in 2017 and include charges associated with our plan to restructure the Services business. The portion of these charges that are included in adjusted pretax operating income are primarily due to severance and related benefit costs. See "—Overview" for more information.



## Contractual Obligations and Commitments

We have various contractual obligations that are recorded as liabilities in our consolidated financial statements. Other items, including payments under operating lease agreements, are not recorded on our consolidated balance sheets as liabilities but represent a contractual commitment to pay.

The following table summarizes certain of our contractual obligations and commitments, including our expected claim payments on insurance policies and interest payments on debt obligations, as of December 31, 2017, and the future periods in which such obligations are expected to be settled in cash. Additional details regarding these obligations are provided in the narrative following the table and in the Notes to Consolidated Financial Statements that are referenced in the table.

<u>(In thousands)</u>	<u>Total</u>	<u>Payments Due by Period</u>			
		<u>2018</u>	<u>2019-2020</u>	<u>2021-2022</u>	<u>Thereafter</u>
Long-term debt obligations (principal and interest) (Note 12) . . . . .	\$1,274,683	\$ 55,383	\$ 483,721 <sup>(1)</sup>	\$ 245,079 <sup>(2)</sup>	\$ 490,500 <sup>(3)</sup>
Operating lease obligations (Note 13) . . . .	99,246	6,482	17,931	16,437	58,396
Reserve for losses and LAE (Note 11) (4) . .	507,588	198,106	264,263	45,219	—
Purchase obligations . . . . .	12,280	8,011	2,807	1,462	—
Unrecognized tax benefits (Note 10) (5) . . .	—	—	—	—	—
<b>Total . . . . .</b>	<b>\$1,893,797</b>	<b>\$ 267,982</b>	<b>\$ 768,722</b>	<b>\$ 308,197</b>	<b>\$ 548,896</b>

- (1) Includes \$158.6 million and \$234.1 million of Senior Notes due 2019 and 2020 that may be redeemed, in whole or in part at any time prior to maturity.
- (2) Includes \$197.7 million of Senior Notes due 2021 that may be redeemed, in whole or in part at any time prior to maturity.
- (3) Includes \$450 million of Senior Notes due 2024 that may be redeemed, in whole or in part at any time prior to maturity.
- (4) Our reserve for losses and LAE reflects the application of accounting policies described below in "Critical Accounting Policies—Reserve for Losses and LAE." The payments due by period are based on management's estimates and assume that all of the loss reserves included in the table will result in claim payments, net of expected recoveries.
- (5) We have approximately \$189.6 million in potential additional liabilities associated with uncertain tax positions as of December 31, 2017. The timing or magnitude of any potential payments is unknown.

### **Other Contractual Obligations and Commitments**

In addition to the contractual obligations set forth in the table above, we have the following material contractual obligations and commitments.

*Affiliate Guaranty/Indemnification Agreements.* We and certain of our subsidiaries have entered into the following intercompany guarantees:

- Radian Guaranty and Radian Mortgage Assurance were parties to a cross-guaranty agreement that was terminated effective July 1, 2016. However, it remains in effect for insurance written prior to the termination date. This agreement provides that if either party fails to make a payment to a policyholder, then the other party will step in and make the payment. The obligations of both parties are unconditional and irrevocable; however, no payments may be made without prior approval by the Pennsylvania Insurance Department.
- Radian Group and Radian Mortgage Assurance are parties to a guaranty agreement, which provides that Radian Group will make sufficient funds available to Radian Mortgage Assurance to ensure that Radian Mortgage Assurance has a minimum of \$5 million of statutory policyholders' surplus every calendar quarter. Radian Mortgage Assurance had \$8.7 million of statutory policyholders' surplus and no RIF exposure as of December 31, 2017.
- To allow our mortgage insurance customers to comply with applicable securities regulations for issuers of ABS (including mortgage-backed securities), we have been required, depending on the amount of credit enhancement we were providing, to provide: (i) audited financial statements for the insurance subsidiary participating in these transactions or (ii) a full and unconditional holding-company level guarantee for our insurance subsidiaries' obligations in such transactions. Radian Group has guaranteed two structured transactions for Radian Guaranty with approximately \$97.8 million of aggregate remaining credit exposure as of December 31, 2017.

- Radian Group and Radian Guaranty Reinsurance are parties to an Assumption and Indemnification Agreement with regard to Radian Guaranty Reinsurance's portion of the Deficiency Amounts relating to the IRS Matter. See Note 10 of Notes to Consolidated Financial Statements for additional information regarding the IRS Matter. We can provide no assurance regarding the outcome of the IRS Matter, which could take several years to resolve. As such, there remains significant uncertainty with regard to the amount and timing of any potential payments under the indemnity agreement described above. See "Item 1A. Risk Factors—*Resolution of our dispute with the IRS could adversely affect us.*"

In the ordinary course of business, Radian enters into agreements pursuant to which we may be obligated under specified circumstances or upon the occurrence of certain events to indemnify the counterparties with respect to certain matters. The terms and amount of indemnification are negotiated on a transaction by transaction basis, but generally the circumstances of the transaction and/or the contract provisions are such that we believe the exposure to material liability is remote.

### Off-Balance Sheet Arrangements

We participate in securities lending agreements for the purpose of increasing the yield on our investment securities portfolio with minimal incremental risk. Pursuant to these agreements, we loan to Borrowers certain securities that are held as part of our investment portfolio. For a complete discussion of our securities lending agreements, including the effect of these agreements on our liquidity and risks related to these agreements, see Note 6 of Notes to Consolidated Financial Statements and "Item 7A. Quantitative and Qualitative Disclosures about Market Risk."

### Liquidity and Capital Resources

#### *Radian Group—Short-Term Liquidity Needs*

Radian Group serves as the holding company for our insurance and other subsidiaries and does not have any operations of its own. At December 31, 2017, Radian Group had available, either directly or through an unregulated subsidiary, unrestricted cash and liquid investments of approximately \$229 million. This amount: (i) includes \$88.6 million deposited with the IRS (which may be recalled by us at any time) in connection with the IRS Matter and (ii) includes certain additional cash and liquid investments that are expected to be received by Radian Group from our subsidiaries for corporate expenses and interest payments. Total liquidity, which includes our undrawn \$225 million unsecured revolving credit facility entered into in October 2017, was \$454 million as of December 31, 2017. See "*Sources of Liquidity*" below. Borrowings under the credit facility may be used for working capital and general corporate purposes, including, without limitation, capital contributions to Radian Group's insurance and reinsurance subsidiaries as well as growth initiatives. See Note 12 of Notes to Consolidated Financial Statements for additional details.

Available holding company liquidity was reduced during 2017, primarily due to (i) \$100 million of cash and marketable securities that Radian Group transferred to Radian Guaranty in December 2017 in exchange for an intercompany Surplus Note; (ii) estimated tax payments made by Radian Group; and (iii) the impacts of some of the capital and liquidity actions discussed below. While the estimated tax payments reduced available holding company liquidity, a significant portion created alternative minimum tax credit carryforwards that can either be utilized in future periods to offset Radian Group's federal tax payments or become fully refundable by tax year 2021. A substantial portion of the estimated tax payments paid in 2017 was reimbursed to Radian Group through its tax-sharing agreement with its subsidiaries.

During 2017, we completed a series of transactions that strengthened our capital and liquidity position and improved our financial flexibility. This series of capital and liquidity actions included:

- the issuance of \$450 million aggregate principal amount of Senior Notes due 2024;
- tender offers resulting in the purchase of aggregate principal amounts of \$141.4 million, \$115.9 million and \$152.3 million of our Senior Notes due 2019, 2020 and 2021, respectively, for a total of \$450.8 million in cash;
- the purchase of an aggregate principal amount of \$21.6 million of our outstanding Convertible Senior Notes due 2017 for \$31.6 million in cash;
- the settlement of our conversion obligations for the remaining aggregate principal amount of our Convertible Senior Notes due 2019 for \$110.1 million in cash, resulting in an aggregate decrease as of the settlement date of 6.4 million diluted shares for the purpose of determining diluted net income per share; and
- the entry into a three-year, \$225 million unsecured revolving credit facility.

The results of these capital management transactions are summarized as follows:

**2017 CAPITAL MANAGEMENT TRANSACTIONS**

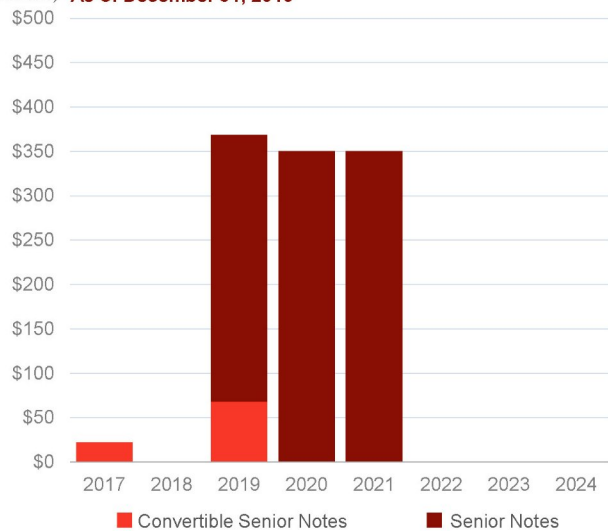
- Eliminated all of our Convertible Senior Notes;
- Improved our debt-to-capital ratio from 27.1% to 25.5%;
- Reduced our future annual cash interest payments by approximately \$5.8 million;
- Extended the weighted-average maturity of our Senior Notes by nearly two years; and
- Reduced the maximum single-year debt maturity prior to 2024 to \$234.1 million.

The chart below shows our debt maturity profile at December 31, 2017 compared to December 31, 2016.

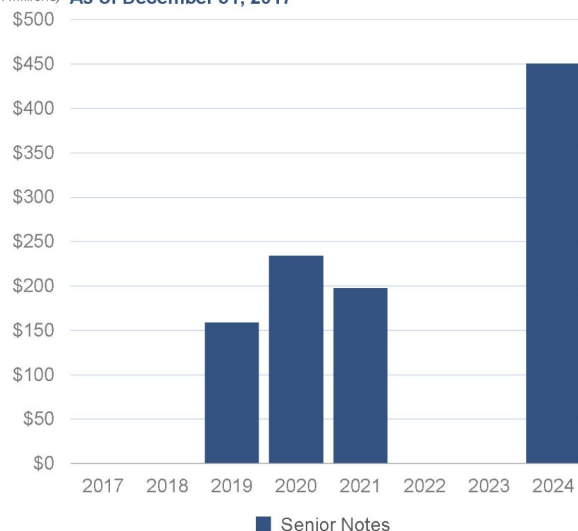
**DEBT MATURITY PROFILE**

Principal by Year of Maturity

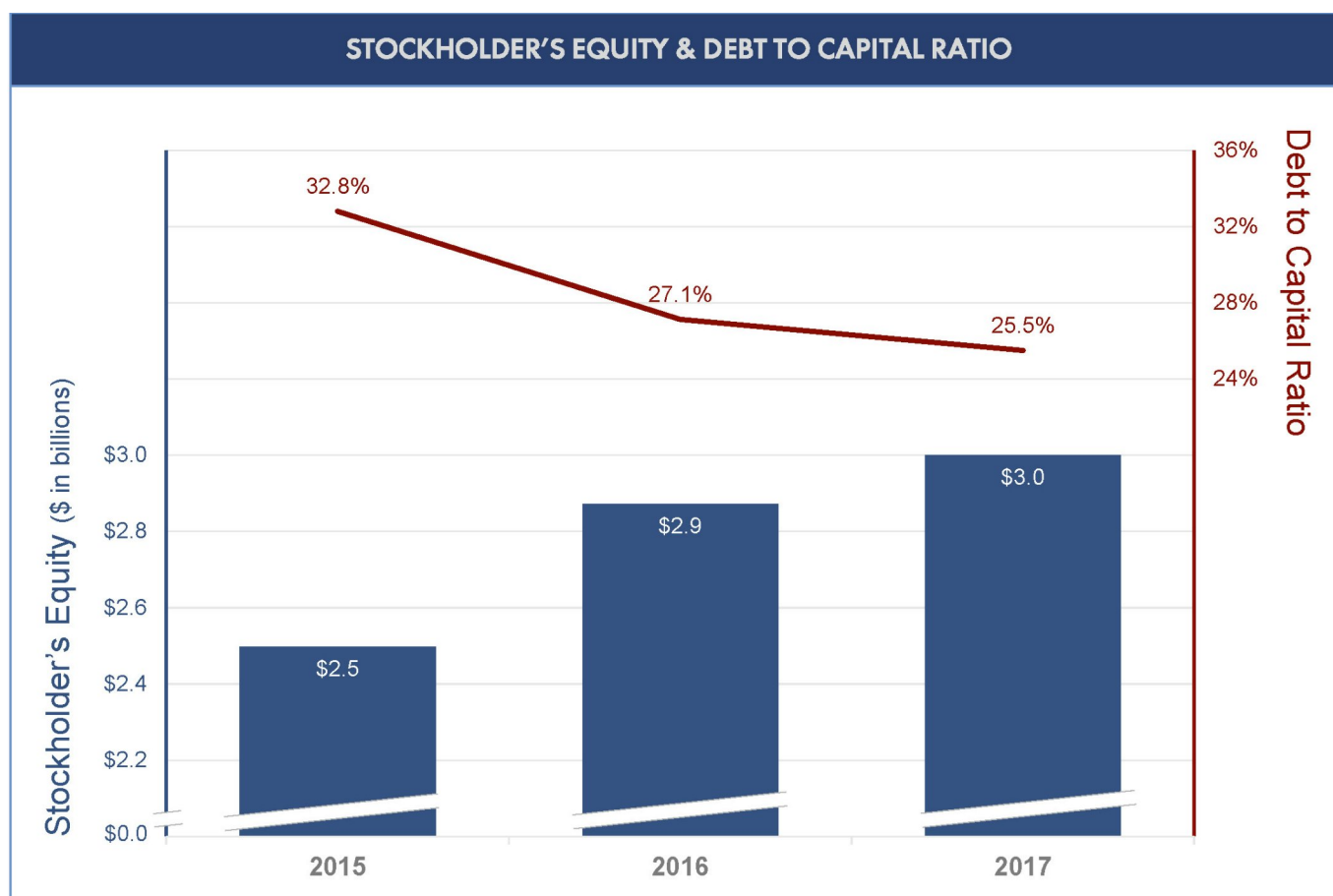
(\$ in millions) **As of December 31, 2016**



(\$ in millions) **As of December 31, 2017**



The chart below illustrates the improvement in Radian’s debt-to-capital ratio from 27.1% at December 31, 2016 to 25.5% at December 31, 2017.



On August 9, 2017, Radian Group’s board of directors renewed its share repurchase program and authorized the Company to spend up to \$50 million to repurchase Radian Group common stock in the open market or in privately negotiated transactions, based on market and business conditions, stock price and other factors. As of December 31, 2017, the full purchase authority of up to \$50 million remained available under this program, which expires on July 31, 2018. See Note 14 of Notes to Consolidated Financial Statements for additional details.

Radian Group’s principal liquidity demands for the next 12 months are expected to include: (i) the payment of corporate expenses, including taxes; (ii) interest payments on our outstanding long-term debt; (iii) as discussed further below, payments to the U.S. Treasury resulting from the IRS Matter if a compromised settlement with the IRS is reached; and (iv) the payment of dividends on our common stock. Radian Group’s liquidity demands for the next 12 months or in future periods could also include (i) the potential use of up to \$50 million to repurchase Radian Group common stock pursuant to the existing share repurchase program, (ii) capital support for Radian Guaranty and our other mortgage insurance subsidiaries; (iii) repurchases or early redemptions of portions of our long-term debt and (iv) potential investments to support our strategy for growing our businesses. We anticipate that our remaining federal NOL carryforwards as of December 31, 2017 will be fully utilized during 2018.

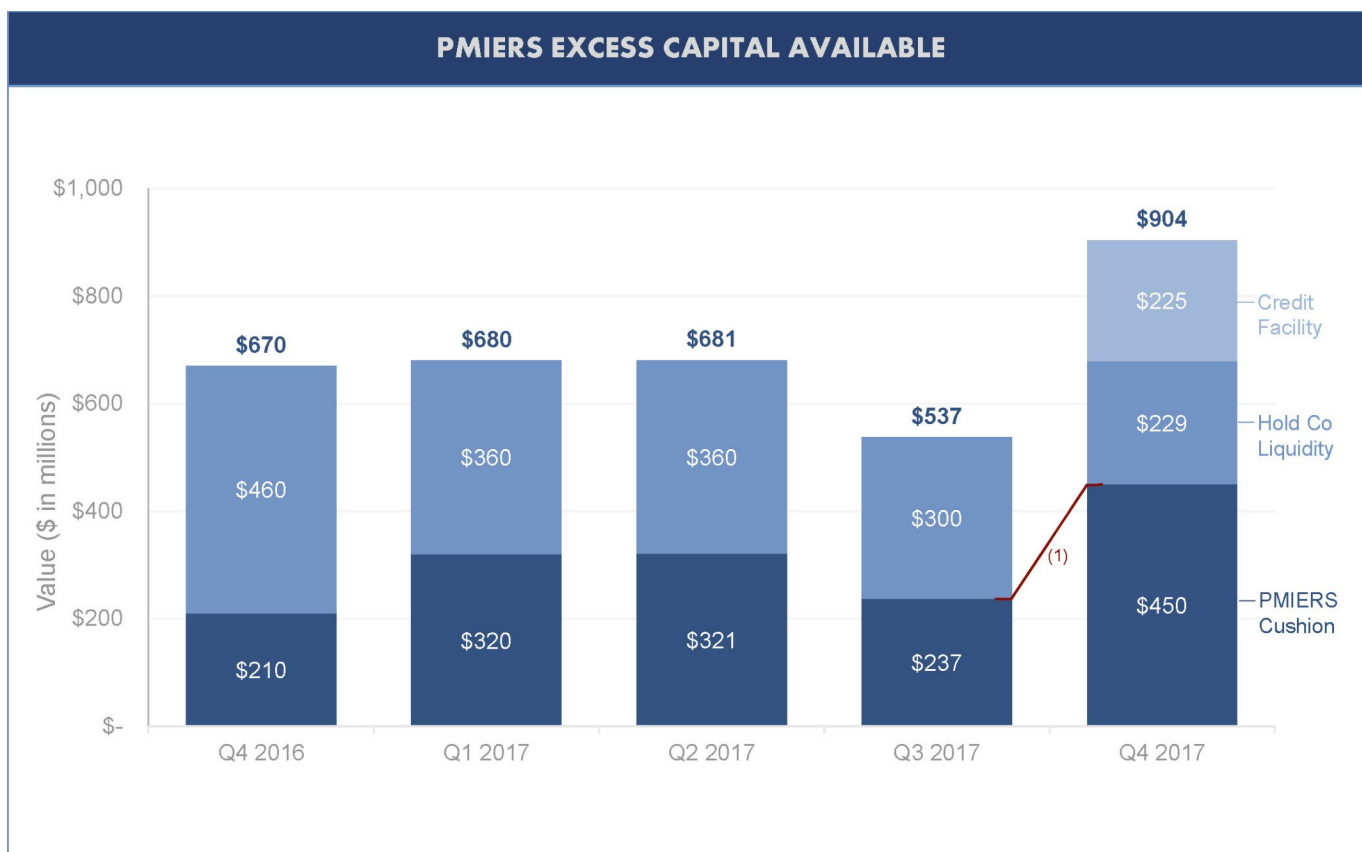
## Part II Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

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*Corporate Expenses and Interest Expense.* Radian Group has expense-sharing arrangements in place with its principal operating subsidiaries that require those subsidiaries to pay their allocated share of certain holding-company-level expenses, including interest payments on most of our outstanding long-term debt. Payments of these corporate expenses for the next 12 months, excluding interest payments on our long-term debt, are expected to be approximately \$64 million, most of which is expected to be reimbursed by our subsidiaries under our expense-sharing arrangements. For the same period, payments of interest on our long-term debt are expected to be approximately \$55 million, most of which is expected to be reimbursed by our subsidiaries under our expense-sharing arrangements. See “—Radian Group—Long-Term Liquidity Needs—Services.” The expense-sharing arrangements between Radian Group and our insurance subsidiaries, as amended, have been approved by the Pennsylvania Insurance Department, but such approval may be modified or revoked at any time.

*Capital Support for Subsidiaries.* Private mortgage insurers, including Radian Guaranty, are required to comply with the PMIERS to remain eligible insurers of loans purchased by the GSEs. Radian Guaranty currently is an approved mortgage insurer under the PMIERS, and is in compliance with the PMIERS financial requirements. At December 31, 2017, Radian Guaranty's Available Assets under the PMIERS totaled approximately \$3.7 billion, resulting in an excess or “cushion” of approximately \$450 million, or 14%, over its Minimum Required Assets of approximately \$3.2 billion. Both the amendment to the 2016 Single Premium QSR Transaction, which became effective as of December 31, 2017, and the \$100 million of cash and marketable securities that Radian Group transferred to Radian Guaranty in December 2017 in exchange for an intercompany Surplus Note contributed to the increase in the amount of Radian Guaranty's cushion under the PMIERS financial requirements as compared to September 30, 2017. See Note 19 of Notes to Consolidated Financial Statements for additional details. Available Assets also increased due to net cash provided by operating activities.

The PMIERS require Radian to maintain significantly more Minimum Required Assets for delinquent loans than for performing loans. Therefore, the increase in reported delinquencies from hurricane-affected areas resulted in an increase of approximately \$100 million in the Company's Minimum Required Assets as of December 31, 2017, compared to September 30, 2017, as a result of increased new primary defaults received subsequent to those two disasters. The Company expects these Minimum Required Assets to decrease, given the expectation that most of the hurricane-related defaults will cure within the next 12 months.



- (1) The amendment to the 2016 Single Premium QSR Transaction which became effective as of December 31, 2017, and the \$100 million of cash and marketable securities that Radian Group transferred to Radian Guaranty in December 2017 in exchange for a Surplus Note both had the effect of increasing the amount of Radian Guaranty’s cushion under the PMIERS financial requirements. These increases were partially offset by the increase of approximately \$100 million in Minimum Required Assets due to the increase in reported delinquencies from hurricane-affected areas, as discussed above.

The PMIERS specifically provide that the factors that are applied to determine a mortgage insurer’s Minimum Required Assets may be updated every two years. Radian Guaranty received a summary of proposed changes to the PMIERS on December 18, 2017. Based on this initial summary, which remains subject to comment by the private mortgage insurance industry, it is reasonably likely that updates to the PMIERS could, among other things, result in a material increase to Radian Guaranty’s capital requirements under the PMIERS financial requirements. Radian expects to be able to fully comply with the proposed PMIERS and to maintain an excess of Available Assets over Minimum Required Assets under the PMIERS as of the expected effective date in late 2018, without a need to take further actions to do so. This expectation is not dependent upon the existing intercompany Surplus Note, but is based on the current form of the proposed PMIERS, our projections for continued positive operating results in 2018, our strong capital position, and the benefits of our reinsurance programs. See Note 1 of Notes to Consolidated Financial Statements for additional information about the PMIERS. If our projections turn out to be inaccurate, our holding company liquidity of \$229 million and the \$225 million unsecured revolving credit facility could be utilized to enhance Radian Guaranty’s PMIERS cushion, as necessary.

Radian Guaranty’s Risk-to-capital as of December 31, 2017 was 12.8 to 1. See Note 19 of Notes to Consolidated Financial Statements for more information. Our combined Risk-to-capital, which represents the consolidated Risk-to-capital measure for all of our Mortgage Insurance subsidiaries, was 12.1 to 1 as of December 31, 2017. Radian Guaranty is not expected to need additional capital to satisfy state insurance regulatory requirements in their current form.



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The NAIC is in the process of reviewing the minimum capital and surplus requirements for mortgage insurers and considering changes to the Model Act. In May 2016, a working group of state regulators released an exposure draft of a risk-based capital framework to establish capital requirements for mortgage insurers. While the timing and outcome of this process is not known, in the event the NAIC adopts changes to the Model Act, we expect that the capital requirements in states that adopt the new Model Act may increase as a result of the changes. However, we continue to believe the changes to the Model Act will not result in financial requirements that require greater capital than the level currently required under the PMIERs financial requirements.

In the event the cash flow from operations of the Services segment is not adequate to fund all of its needs, Radian Group may provide additional funds to the Services segment in the form of a capital contribution or an intercompany note. See also “—Services.” Additional capital support may also be required for potential investments in new business initiatives to support our strategy of growing our businesses.

*Dividends.* Our quarterly common stock dividend currently is \$0.0025 per share and, based on our current outstanding shares of common stock, we would require approximately \$2.2 million in the aggregate to pay our quarterly dividends for the next 12 months. Radian Group is not subject to any limitations on its ability to pay dividends except those generally applicable to corporations that are incorporated in Delaware. Delaware corporation law provides that dividends are only payable out of a corporation's capital surplus or (subject to certain limitations) recent net profits. As of December 31, 2017, our capital surplus was \$3.0 billion, representing our dividend limitation under Delaware law.

*IRS Matter.* In addition to the items discussed above, in the event a final judgment or compromised settlement agreement is reached in Radian Group's ongoing dispute with the IRS related to the Deficiency Amount from the examination of our 2000 through 2007 consolidated federal income tax returns, Radian Group may be required to make a payment to the U.S. Treasury. Radian Group will not be reimbursed for any portion of this potential payment under the tax-sharing arrangements with its subsidiaries, as a result of an intercompany assumption and indemnification agreement related to certain of these Deficiency Amounts. During 2016, we held several meetings with the IRS in an attempt to reach a compromised settlement on the issues presented in our dispute. In October 2017, the parties informed the Tax Court that they believe they have reached agreement in principle on all issues in the dispute. In November 2017, as required by law, the agreement was reported to the JCT for review. The agreement cannot be finalized until the IRS considers the views, if any, expressed by the JCT about the matter. If we are unable to complete a compromised settlement, then the ongoing litigation could take several years to resolve and may result in substantial legal expenses. We can provide no assurance regarding the outcome of any such litigation or whether a compromised settlement with the IRS will ultimately be reached. As such, there remains significant uncertainty with regard to the amount and timing of any potential payments. See Note 10 of Notes to Consolidated Financial Statements for additional information regarding the IRS matter.

*Sources of Liquidity.* In addition to available cash and marketable securities, Radian Group's principal sources of cash to fund future short-term liquidity needs include payments made to Radian Group under expense- and tax-sharing arrangements with its subsidiaries. See also “—Radian Group—Long-Term Liquidity Needs—Services.” Under the provisions of its tax-sharing agreement with its subsidiaries, Radian Group may also receive cash as a result of certain of our operating subsidiaries generating tax liabilities and related payments that are in excess of Radian Group's consolidated payment obligation to the U.S. Treasury.

In addition to the primary sources of liquidity listed above, on October 16, 2017, Radian Group entered into a three-year, \$225 million unsecured revolving credit facility with a syndicate of bank lenders. Borrowings under the credit facility may be used for working capital and general corporate purposes, including, without limitation, capital contributions to Radian Group's insurance and reinsurance subsidiaries as well as growth initiatives. At December 31, 2017, the full \$225 million remains undrawn and available under the facility. See Note 12 of Notes to Consolidated Financial Statements for additional information.

If Radian Group's current sources of liquidity are insufficient for Radian Group to fund its obligations during the next 12 months, or if we otherwise decide to increase our liquidity position, Radian Group may seek additional capital by incurring additional debt, by issuing additional equity, or by selling assets, which we may not be able to do on favorable terms, if at all.

We regularly evaluate opportunities, based on market conditions, to finance our operations by accessing the capital markets or entering into other types of financing arrangements with institutional and other lenders and financing sources, and consider various measures to improve our capital and liquidity positions, as well as to strengthen our balance sheet and improve Radian Group's debt maturity profile. In the past, we have repurchased and exchanged, prior to maturity, some of our outstanding debt, and in the future, we may, from time to time, seek to redeem, repurchase or exchange for other securities, or otherwise restructure or refinance some or all of our outstanding debt, prior to maturity, in the open market, through other public or private transactions, including pursuant to one or more tender offers, or through any combination of the foregoing, as circumstances may allow. The timing or amount of any potential transactions will depend on a number of factors, including market opportunities and our views regarding our capital and liquidity positions and potential future needs. There can be no assurance that any such transactions will be completed on favorable terms, or at all.

#### ***Radian Group—Long-Term Liquidity Needs***

In addition to our short-term liquidity needs discussed above, our most significant needs for liquidity beyond the next 12 months are:

- (1) the repayment of our outstanding long-term debt, consisting of:
  - \$158.6 million principal amount of outstanding debt due in June 2019;
  - \$234.1 million principal amount of outstanding debt due in June 2020;
  - \$197.7 million principal amount of outstanding debt due in March 2021;
  - \$450 million principal amount of outstanding debt due in October 2024; and
- (2) potential additional capital contributions to our subsidiaries.

As of December 31, 2017, certain of our subsidiaries have incurred NOLs that could not be carried-back and utilized on a separate company tax return basis. As a result, we are not currently obligated under our tax-sharing agreement to reimburse these subsidiaries for their separate company NOL carryforward. However, if in a future period, our consolidated NOL is fully utilized before a subsidiary has utilized its share of NOL carryforward on a separate entity basis, then Radian Group may be obligated to fund such subsidiary's share of our consolidated tax liability to the IRS. Certain subsidiaries, including Clayton, currently have NOLs on a separate entity basis that are available for future utilization. However, we do not expect to fund material obligations related to these subsidiary NOLs. See also "*—Radian Group—Short-Term Liquidity Needs—Sources of Liquidity.*"

We expect to meet the long-term liquidity needs of Radian Group with a combination of: (i) available cash and marketable securities; (ii) private or public issuances of debt or equity securities, which we may not be able to do on favorable terms, if at all; (iii) cash received under tax- and expense-sharing arrangements with our subsidiaries; (iv) to the extent available, dividends from our subsidiaries; and (v) any amounts that Radian Guaranty is able to successfully redeem under the Surplus Note.

Under Pennsylvania's insurance laws, ordinary dividends and other distributions may only be paid out of an insurer's positive unassigned surplus, measured as of the end of the prior fiscal year. Radian Guaranty and Radian Reinsurance had negative unassigned surplus at December 31, 2017 of \$765.0 million and \$112.1 million, respectively, and therefore, no ordinary dividends or other distributions can be paid by these subsidiaries in 2018. Due in part to the need to set aside contingency reserves, we do not expect that Radian Guaranty or Radian Reinsurance will have positive unassigned surplus, and therefore will not have the ability to pay ordinary dividends, for the foreseeable future. Under Pennsylvania's insurance laws, an insurer may request an Extraordinary Dividend, but payment is subject to the approval of the Pennsylvania Insurance Commissioner.

There can also be no assurance that our Services segment will generate sufficient cash flow to pay dividends. See "*—Services*" below.

#### ***Mortgage Insurance***

As of December 31, 2017, our Mortgage Insurance segment maintained claims paying resources of \$4.3 billion on a statutory basis, which consists of contingency reserves, statutory policyholders' surplus, premiums received but not yet earned and loss reserves.

The principal demands for liquidity in our mortgage insurance business include: (i) the payment of claims and potential claim settlement transactions, net of reinsurance; (ii) operating expenses (including those allocated from Radian Group) and (iii) taxes. Radian Guaranty's Surplus Note to Radian Group has a due date of December 31, 2027. The Surplus Note may be redeemed at any time upon 30 days prior notice, subject to the approval of the Pennsylvania Insurance Department.

In August 2016, Radian Guaranty and Radian Reinsurance became members of the FHLB and, as members, may borrow from the FHLB, subject to certain conditions including the need to post collateral. Borrowings from the FHLB may be used to provide low-cost, supplemental liquidity. As of December 31, 2017, there were no FHLB borrowings outstanding.

The principal sources of liquidity in our mortgage insurance business currently include insurance premiums, net investment income, cash flows from investment sales and maturities and, potentially, FHLB borrowings or capital contributions from Radian Group. We believe that the operating cash flows generated by each of our mortgage insurance subsidiaries will provide these subsidiaries with a substantial portion of the funds necessary to satisfy their claim payments, operating expenses and taxes for the foreseeable future.

Private mortgage insurers, including Radian Guaranty, are required to comply with the PMIERS to remain eligible insurers of loans purchased by the GSEs. Radian Guaranty currently is an approved mortgage insurer under the PMIERS and is in compliance with the PMIERS financial requirements. See “—*Radian Group—Short-Term Liquidity Needs*” and Note 1 of Notes to Consolidated Financial Statements for additional information.

#### *Securities Lending Agreements*

Radian Guaranty and Radian Reinsurance from time to time enter into certain short-term securities lending agreements with third-party Borrowers for the purpose of increasing the yield on our investment securities portfolio with minimal incremental risk. Under our securities lending program, Radian Guaranty and Radian Reinsurance loan certain securities in their investment portfolios to these Borrowers for short periods of time in exchange for collateral consisting of cash and other securities. We have the right to request the return of the loaned securities at any time.

Under our securities lending agreements, the Borrower generally may return the loaned securities to us at any time, which would require us to return the cash and other collateral within the standard settlement period for the loaned securities on the principal exchange or market in which the securities are traded. We manage this liquidity risk associated with the cash collateral by maintaining the cash collateral in a short-term money-market fund with daily availability.

The credit risk under these programs is reduced by the amounts of collateral received. On a daily basis, the value of the underlying securities that we have loaned to the Borrowers is compared to the value of cash and securities collateral we received from the Borrowers, and additional cash or securities are requested or returned, as applicable. In addition, we are indemnified against counterparty credit risk by the intermediary. For additional information on our securities lending agreements, see Note 6 of Notes to Consolidated Financial Statements.

#### *Freddie Mac Agreement*

At December 31, 2016, Radian Guaranty had \$63.9 million in a collateral account invested in and classified as part of our trading securities and pledged to cover Loss Mitigation Activity on the loans subject to the Freddie Mac Agreement. The scheduled final settlement date under the Freddie Mac Agreement occurred during 2017 and resulted in a \$54.8 million payment to Freddie Mac and a release of \$4.4 million to Radian Guaranty from the funds remaining in the collateral account. As of December 31, 2017, the remaining balance of \$5.6 million in the collateral account was invested in and classified as short-term investments and pledged to cover Loss Mitigation Activity and pending claims activity already in process but not yet finalized. As of December 31, 2017, we have \$2.6 million remaining in reserve for losses that we expect to pay to Freddie Mac from the remaining funds in the collateral account.

#### *Services*

As of December 31, 2017, our Services segment maintained cash and cash equivalents totaling \$11.4 million, which included restricted cash of \$2.4 million.

The principal demands for liquidity in our Services segment include: (i) the payment of employee compensation and other operating expenses, including those allocated from Radian Group; (ii) reimbursements to Radian Group for interest payments related to the original issued amount of the Senior Notes due 2019; and (iii) dividends to Radian Group, if any. In addition, the Services segment expects to pay approximately \$3.0 million in cash over the next 12 months related to its restructuring plan. See “Overview—*Operating Environment and Business Strategy—Business Strategy*” for additional information.

The principal sources of liquidity in our Services segment are cash generated by operations and, to the extent necessary, capital contributions from Radian Group.

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Liquidity levels may fluctuate depending on the levels and contractual timing of our invoicing and the payment practices of the Services clients, in combination with the timing of Services’ payments for employee compensation and to external vendors. The amount, if any, and timing of the Services segment’s dividend paying capacity will depend primarily on the amount of excess cash flow generated by the segment.

The Services segment has not generated sufficient cash flows to pay dividends to Radian Group. Additionally, while cash flow has been sufficient to pay the Services segment’s direct operating expenses, it has not been sufficient to reimburse Radian Group for \$67.5 million of its accumulated allocated operating expense and interest expense. We do not expect that the Services segment will be able to bring its reimbursement obligations current in the foreseeable future. In the event the cash flow from operations of the Services segment is not adequate to fund all of its needs, Radian Group may provide additional funds to the Services segment in the form of a capital contribution or an intercompany note.

**Cash Flows**

The following table summarizes our consolidated cash flows from operating, investing and financing activities:

<b>(In thousands)</b>	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Net cash provided by (used in):			
Operating activities . . . . .	\$ 360,575	\$ 381,724	\$ 11,721
Investing activities . . . . .	(201,492)	(176,058)	2,792
Financing activities . . . . .	(125,084)	(203,269)	601
Effect of exchange rate changes on cash and restricted cash . . . . .	431	(481)	(133)
Less: Increase (decrease) in cash of business held for sale . . . . .	—	—	(421)
Increase (decrease) in cash and restricted cash .	<u>\$ 34,430</u>	<u>\$ 1,916</u>	<u>\$ 15,402</u>

*Operating Activities*

Our most significant source of operating cash flows is from premiums received from our insurance policies, while our most significant uses of operating cash flows are generally for claims paid on our insured policies and our operating expenses. Net cash provided by operating activities totaled \$360.6 million in 2017, compared to \$381.7 million in 2016. This decrease in net cash provided by operating activities in 2017, compared to 2016, was principally the result of estimated payments made for income taxes, partially offset by an increase in net premiums received and a reduction in net claims paid. Net cash flows provided by operating activities increased for 2016 compared to 2015, primarily as a result of a significant reduction in total claims paid in 2016, compared to 2015.

*Investing Activities*

Net cash used in investing activities increased in 2017, compared to 2016, primarily as a result of (i) an increase in purchases, net of proceeds, from sales of equity securities and (ii) a decrease in proceeds from sales of trading securities. These increases were partially offset by a decrease in purchases, net of proceeds from sales, of fixed-maturity investments available for sale.

Net cash used in investing activities increased for 2016, compared to a small amount of net cash provided by investing activities for 2015, primarily as a result of the investment of a portion of the net cash provided by operating activities in 2016. The net cash provided by operating activities, combined with funds provided by sales and redemptions of trading securities and short-term investments, contributed to a high volume of purchases of fixed-maturity investments available for sale during 2016. In addition, purchases of property and equipment, net, increased during 2016, primarily as a result of our technology upgrade project.

*Financing Activities*

Net cash used in financing activities decreased for 2017, compared to 2016, primarily as a result of reduced repurchases of our common stock, partially offset by purchases and redemptions of debt exceeding debt issuances. For 2017 our primary financing activities included the issuance of \$450 million aggregate principal amount of Senior Notes due 2024 as well as: (i) the purchases of aggregate principal amounts of \$141.4 million, \$115.9 million and \$152.3 million of our Senior Notes due 2019, 2020 and 2021, respectively; (ii) the settlement of our obligations on the remaining \$68.0 million aggregate principal amount of our Convertible Senior Notes due 2019; and (iii) the purchase of \$21.6 million aggregate principal amount of our Convertible Senior Notes due 2017, all of which were settled in cash for an aggregate amount of \$592.5 million during 2017. During 2016, cash used in financing activities primarily related to purchases of our Convertible Senior Notes due 2017 and 2019 as well as repurchases of our common stock, partially offset by the issuance of \$350 million aggregate principal amount of Senior Notes due 2021.

Net cash used in financing activities increased for 2016, compared to net cash provided by financing activities for 2015, primarily due to: (i) purchases of aggregate principal amounts of \$30.1 million and \$322.0 million, respectively, of our outstanding Convertible Senior Notes due 2017 and 2019, which were partially settled in cash in the amount of \$235.0 million and (ii) the redemption of the remaining \$195.5 million aggregate principal amount of our Senior Notes due 2017, which we settled in cash in the amount of \$211.3 million. The cash flow impact of these 2016 purchases and redemptions collectively exceeded the purchases and redemption of long-term debt for the same period of 2015 and was partially offset by a reduction in purchases of our common shares.

See “Item 8. Financial Statements and Supplementary Data—Consolidated Statements of Cash Flows” for additional information.

***Stockholders’ Equity***

Stockholders’ equity increased to \$3.0 billion at December 31, 2017, from \$2.9 billion at December 31, 2016. The net increase in stockholders’ equity resulted primarily from: (i) our net income of \$121 million for the year ended December 31, 2017 and (ii) net unrealized gains on investments of \$34.5 million. These increases were partially offset by the impact of our recently completed debt and equity transactions to strengthen Radian’s capital position, which decreased stockholders’ equity by \$48.5 million, excluding the \$33.3 million after-tax impact from the loss on induced conversion and debt extinguishment already reflected in net income. See “Overview—Other 2017 Developments” for additional information.

***Ratings***

Radian Group, Radian Guaranty and Radian Reinsurance have been assigned the ratings set forth in the chart below. We believe that ratings often are considered by others in assessing our credit strength and the financial strength of our primary mortgage insurance subsidiaries. The following ratings have been independently assigned by third-party statistical rating organizations, are for informational purposes only and are subject to change. See “Item 1A. Risk Factors—*Radian Guaranty may fail to maintain its eligibility status with the GSEs.*”

	Moody’s (1)	S&P (2)
Radian Group . . . . .	Ba3	BB+
Radian Guaranty . . . . .	Baa3	BBB+
Radian Reinsurance . . . . .	N/A	BBB+

- (1) Based on the August 17, 2017 update, Moody’s outlook for Radian Group and Radian Guaranty currently is Positive.  
(2) Based on the September 11, 2017 update, S&P’s outlook for Radian Group, Radian Guaranty and Radian Reinsurance is currently Stable.



## Critical Accounting Policies

SEC guidance defines Critical Accounting Policies as those that require the application of management's most difficult, subjective or complex judgments, often because of the need to make estimates about the effect of matters that are inherently uncertain and that may change in subsequent periods. In preparing our consolidated financial statements in accordance with GAAP, management has made estimates, assumptions and judgments that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. In preparing these financial statements, management has utilized available information, including our past history, industry standards and the current and projected economic and housing environments, among other factors, in forming its estimates, assumptions and judgments, giving due consideration to materiality. Because the use of estimates is inherent in GAAP, actual results could differ from those estimates. In addition, other companies may utilize different estimates, which may impact comparability of our results of operations to those of companies in similar businesses. A summary of the accounting policies that management believes are critical to the preparation of our consolidated financial statements is set forth below.

### *Reserve for Losses and LAE*

We establish reserves to provide for losses and LAE, which include the estimated costs of settling claims in our Mortgage Insurance segment, in accordance with the accounting standard regarding accounting and reporting by insurance enterprises. Although this standard specifically excludes mortgage insurance from its guidance relating to the reserve for losses, because there is no specific guidance for mortgage insurance, we establish reserves for mortgage insurance as described below, using the guidance contained in this standard supplemented with other accounting guidance.

Estimating our loss reserves involves significant reliance upon assumptions and estimates with regard to the likelihood, magnitude and timing of each potential loss, including an estimate of the impact of our Loss Mitigation Activities. The models, assumptions and estimates we use to establish loss reserves may prove to be inaccurate, especially during an extended economic downturn or a period of extreme market volatility and uncertainty. As such, we cannot be certain that our reserve estimate will be adequate to cover ultimate losses on incurred defaults. For example, our mortgage insurance loss reserves generally increase as defaulted loans age, because historically, as defaulted loans age, they have been more likely to result in foreclosure, and therefore, have been more likely to result in a claim payment. While we believe this remains accurate, following the financial crisis, there are a significant number of loans in our defaulted portfolio that have been in default for an extended period of time, but which have not been subject to foreclosure, and therefore, have not resulted in claims. As a result, significant uncertainty remains with respect to the ultimate resolution of these aged defaults. This uncertainty requires management to use considerable judgment in estimating the rate at which these loans will result in claims.

Commutations and other negotiated terminations of our insured risks in our Mortgage Insurance segment provide us with an opportunity to exit exposures for an agreed upon payment, or payments, sometimes at an amount less than the previously estimated ultimate liability. Once all exposures relating to such policies are extinguished, all reserves for losses and LAE and other balances relating to the insured policies are generally reversed, with any remaining net gain or loss typically recorded through provision for losses. We take into consideration the specific contractual and economic terms for each individual agreement when accounting for our commutations or other negotiated terminations, which may result in differences in the accounting for these transactions.

In our Mortgage Insurance business, the default and claim cycle begins with the receipt of a default notice from the loan servicer. Reserves for losses are established upon receipt of notification from servicers that a borrower has missed two monthly payments, which is when we consider a loan to be in default for financial statement and internal tracking purposes. We also establish reserves for associated LAE, consisting of the estimated cost of the claims administration process, including legal and other fees and expenses associated with administering the claims process.

We maintain an extensive database of claim payment history, and use models based on a variety of loan characteristics to determine the likelihood that a default will reach claim status.



With respect to loans that are in default, considerable judgment is exercised as to the adequacy of reserve levels. For purposes of reserve modeling, loans are aggregated into groups using a variety of factors. The attributes currently used to define the groups for purposes of developing various assumptions include, but are not limited to, the Stage of Default, the Time in Default and type of insurance (i.e., primary or pool). We use an actuarial projection methodology referred to as a "roll rate" analysis that uses historical claim frequency information to determine the projected ultimate Default to Claim Rates based on the Stage of Default and Time in Default as well as the date that a loan goes into default. With respect to new defaults in FEMA Designated Areas associated with Hurricanes Harvey and Irma received subsequent to those two disasters, we assume a lower gross Default to Claim Rate than for new defaults with similar characteristics from other areas, due to our expectations based on past experience with other natural disasters, that a significant portion of these defaults will not result in claims. The Default to Claim Rate also includes our estimates with respect to expected Rescissions and Claim Denials, which have the effect of reducing our Default to Claim Rates. We forecast the impact of our Loss Mitigation Activity in protecting us against fraud, underwriting negligence, breach of representation and warranties, inadequate documentation of submitted claims and other items that may give rise to Rescissions or cancellations and Claim Denials, to help determine the Default to Claim Rate. Our Loss Mitigation Activities have resulted in challenges from certain lender and servicer customers, which have resulted in some reversals of our decisions regarding Rescissions, Claim Denials and Claim Curtailments in the ordinary course. Although we believe that our Loss Mitigation Activities are justified under our policies, certain challenges have resulted in disputes and litigation, which if resolved unfavorably to us, could require us to reassume the risk on, and increase loss reserves for, those policies or pay additional claims. See Note 7 of Notes to Consolidated Financial Statements for additional information. Our Master Policies specify the time period during which a suit or action arising from any right of the insured under the policy must be commenced. The assumptions embedded in our estimated Default to Claim Rate on our in-force default inventory include an adjustment to our estimated Rescissions and Claim Denials to account for the fact that we expect a certain number of policies to be reinstated and ultimately to be paid, as a result of valid challenges by such policy holders.

Our aggregate weighted-average Default to Claim Rate assumption (net of Claim Denials and Rescissions) used in estimating our primary reserve for losses was 31% (29% excluding pending claims) at December 31, 2017 and 42% (40% excluding pending claims) at December 31, 2016. Our Default to Claim Rate estimates on defaulted loans are mainly developed based on the Stage of Default and Time in Default of the underlying defaulted loans grouped according to the period in which the default occurred, as measured by the progress toward foreclosure sale and the number of months in default. During the year ended December 31, 2015, we reduced our gross Default to Claim Rate assumption for new primary defaults from 16% to 13% due to continued improvement in actual claim development trends. During the year ended December 31, 2016, this assumed rate was further reduced to 12%. Our estimates of gross Default to Claim Rates on our primary portfolio as of December 31, 2017 generally ranged from 10% for new defaults to 81% for Foreclosure Stage Defaults. As discussed above, based on our past experience, we assumed an average gross Default to Claim Rate of 3% for new defaults in FEMA Designated Areas associated with Hurricanes Harvey and Irma received subsequent to those two hurricanes which contributed to the decrease in the overall weighted-average Default to Claim Rate assumption at December 31, 2017 as compared to December 31, 2016. Our estimate of expected Rescissions and Claim Denials (net of expected Reinstatements) embedded in our estimated Default to Claim Rate is generally based on our recent experience. Consideration is also given for differences in characteristics between those rescinded policies and denied claims and the loans remaining in our defaulted inventory.

After estimating the Default to Claim Rate, we estimate Claim Severity based on the average of recently observed severity rates within product type, type of insurance, and Time in Default cohorts. These average severity estimates are then applied to individual loan coverage amounts to determine reserves. Similar to the Default to Claim Rate, Claim Severity also is impacted by the length of time that loans are in default and by our Loss Mitigation Activity. For claims under our primary mortgage insurance, the coverage percentage is applied to the claim amount, which consists of the unpaid loan principal, plus past due interest (for which our liability is contractually capped in accordance with the terms of our Master Policies) and certain expenses associated with the default, to determine our maximum liability. Therefore, Claim Severity generally increases the longer that a loan is in default. In addition, we estimate the impact that the amount that Claim Curtailments due to servicer noncompliance with our insurance policies and servicing guidelines have on the amount that we ultimately will have to pay with respect to claims. As part of our claims review process, we assess whether defaulted loans were serviced appropriately in accordance with our insurance policies and servicing guidelines. If a servicer failed to satisfy its servicing obligations, our insurance policies provide that we may curtail the claim payment for such default, and in some circumstances, cancel coverage or deny the claim.

We do not establish reserves for loans that are in default if we believe that we will not be liable for the payment of a claim with respect to that default unless a reserve for premium deficiency is required. We generally do not establish loss reserves for expected future claims on insured mortgages that are not in default. See "*—Reserve for Premium Deficiency*" below for an exception to this general principle.

### *IBNR and Other Reserves*

We also establish reserves for defaults that we estimate have been incurred but have not been reported to us on a timely basis by the servicer, as well as for previous Rescissions, Claim Denials and Claim Curtailments that we estimate will be reinstated and subsequently paid. We generally give the policyholder up to 30 days to challenge our decision to rescind coverage before we consider a policy to be rescinded and remove it from our defaulted inventory; therefore, we currently expect only a limited percentage of policies that were rescinded to be reinstated. We currently expect a significant percentage of claims that were denied to be resubmitted as a perfected claim and ultimately paid. Most often, a Claim Denial is the result of a servicer's inability to provide the loan origination file or other servicing documents for review. Under the terms of our Master Policies with our lending customers, our policyholders have up to one year after the acquisition of borrower's title to provide to us the necessary documents to perfect a claim. All estimates are periodically reviewed and adjustments are made as they become necessary.

The impact to our reserve due to estimated future Loss Mitigation Activities incorporates our expectations regarding the number of policies that we expect to be reinstated as a result of our claims rebuttal process. Rescissions, Claim Denials and Claim Curtailments may occur for various reasons, including, without limitation, underwriting negligence, fraudulent applications and appraisals, breach of representations and warranties and inadequate documentation, primarily related to our Legacy Portfolio. The level of Rescissions, Claim Denials and Claim Curtailments has been declining in recent periods as our defaulted Legacy Portfolio continues to decline, and we expect this trend to continue.

Unless a liability associated with such activities or discussions becomes probable and can be reasonably estimated, we consider our claim payments and our Rescissions, Claim Denials and Claim Curtailments to be resolved for financial reporting purposes. Under the accounting standard regarding contingencies, an estimated loss is accrued only if we determine that the loss is probable and can be reasonably estimated. For populations of disputed Rescissions, Claim Denials and Claim Curtailments where we determine that a settlement is probable and that a loss can be reasonably estimated, we reflect our best estimate of the expected loss related to the populations under discussion in our financial statements, primarily as a component of our IBNR reserve. While our reserves include our best estimate of such losses, the outcome of the discussions or potential legal proceedings that could ensue is uncertain, and it is reasonably possible that a loss exists in excess of the amount accrued.

### *Sensitivity Analysis*

We considered the sensitivity of first-lien loss reserve estimates at December 31, 2017 by assessing the potential changes resulting from a parallel shift in Claim Severity and Default to Claim Rate estimates for primary loans. For example, assuming all other factors remain constant, for every one percentage point change in primary Claim Severity (which we estimate to be 97.6% of risk exposure at December 31, 2017), we estimated that our loss reserves would change by approximately \$4.8 million at December 31, 2017. Assuming all other factors remain constant, for every one percentage point change in our overall primary net Default to Claim Rate (which we estimate to be 31% at December 31, 2017, including our assumptions related to Rescissions and Claim Denials), we estimated a \$14.2 million change in our loss reserves at December 31, 2017.

Senior management regularly reviews the modeled frequency, Rescission, Claim Denial, Claim Curtailments and Claim Severity estimates, which are based on historical trends, as described above. If recent emerging or projected trends differ significantly from the historical trends used to develop the modeled estimates, management evaluates these trends and determines how they should be considered in its reserve estimates.

### ***Reserve for Premium Deficiency***

Insurance enterprises are required to establish a PDR if the net present value of the expected future losses and expenses for a particular product line exceeds the net present value of expected future premiums and existing reserves for that product line. We reassess our expectations for premiums, losses and expenses for our mortgage insurance business at least quarterly and update our premium deficiency analyses accordingly. For our mortgage insurance business, we group our mortgage insurance products into two categories: first-lien and second-lien mortgage loans.

For our first-lien insurance business, because the combination of the net present value of our expected future premiums and existing reserves (net of reinsurance recoverables) significantly exceeded the net present value of our future expected losses and expenses, a first-lien PDR was not required as of December 31, 2017 or December 31, 2016. Our second-lien PDR is recorded as a component of other liabilities.

Evaluating the expected profitability of our existing mortgage insurance business and the need for a PDR for our first-lien business involves significant reliance upon assumptions and estimates with regard to the likelihood, magnitude and timing of potential losses and premium revenues. The models, assumptions and estimates we use to evaluate the need for a PDR may not accurately forecast future performance, especially during any extended economic downturn or period of extreme market volatility and uncertainty.

#### ***Fair Value of Financial Instruments***

Our estimated fair value measurements are intended to reflect the assumptions market participants would use in pricing an asset or liability based on the best information available. Assumptions include the risks inherent in a particular valuation technique (such as a pricing model) and the risks inherent in the inputs to the model. Changes in economic conditions and capital market conditions, including but not limited to, credit spread changes, benchmark interest rate changes, market volatility and changes in the value of underlying collateral, could cause actual results to differ materially from our estimated fair value measurements. We define fair value as the current amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

In accordance with GAAP, we established a three-level valuation hierarchy for disclosure of fair value measurements based on the transparency of inputs to the valuation of an asset or liability as of the measurement date. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level I measurements) and the lowest priority to unobservable inputs (Level III measurements). The level in the fair value hierarchy within which the fair value measurement falls is determined based on the lowest level input that is significant to the measurement in its entirety. The three levels of the fair value hierarchy are defined below:

- Level I — Unadjusted quoted prices for identical assets or liabilities in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;
- Level II — Prices or valuations based on observable inputs other than quoted prices in active markets for identical assets and liabilities; and
- Level III — Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable. Level III inputs are used to measure fair value only to the extent that observable inputs are not available.

For markets in which inputs are not observable or are limited, we use significant judgment and assumptions that a typical market participant would use to evaluate the market price of an asset or liability. Given the level of judgment necessary, another market participant may derive a materially different estimate of fair value. These assets and liabilities are classified in Level III of our fair value hierarchy.

There were no Level III assets or liabilities at December 31, 2017. Available for sale securities, trading securities, and certain other assets are recorded at fair value as described in Note 5 of Notes to Consolidated Financial Statements. All changes in fair value of trading securities and certain other assets are included in our consolidated statements of operations. All changes in the fair value of available for sale securities are recorded in accumulated other comprehensive income (loss).

The following are descriptions of our valuation methodologies for financial assets and liabilities measured at fair value.

#### ***Investments***

***U.S. government and agency securities***—The fair value of U.S. government and agency securities is estimated using observed market transactions, including broker-dealer quotes and actual trade activity as a basis for valuation. U.S. government and agency securities are categorized in either Level I or Level II of the fair value hierarchy.

***State and municipal obligations***—The fair value of state and municipal obligations is estimated using recent transaction activity, including market observations. Valuation models are used, which incorporate bond structure, yield curve, credit spreads and other factors. These securities are generally categorized in Level II of the fair value hierarchy or in Level III when market-based transaction activity is unavailable.

***Money market instruments***—The fair value of money market instruments is based on daily prices, which are published and available to all potential investors and market participants. As such, these securities are categorized in Level I of the fair value hierarchy.

*Corporate bonds and notes*—The fair value of corporate bonds and notes is estimated using recent transaction activity, including market observations. Spread models are used that incorporate issuer and structure characteristics, such as credit risk and early redemption features, where applicable. These securities are generally categorized in Level II of the fair value hierarchy or in Level III when market-based transaction activity is unavailable.

*RMBS, CMBS and Other ABS*—The fair value of these instruments is estimated based on prices of comparable securities and spreads and observable prepayment speeds. These securities are generally categorized in Level II of the fair value hierarchy or in Level III when market-based transaction activity is unavailable. The fair value of any Level III securities is generally estimated by discounting estimated future cash flows.

*Foreign government and agency securities*—The fair value of foreign government and agency securities is estimated using observed market yields used to create a maturity curve and observed credit spreads from market makers and broker-dealers. These securities are categorized in Level II of the fair value hierarchy.

*Equity securities*—The fair value of these securities is generally estimated using observable market data in active markets or bid prices from market makers and broker-dealers. Generally, these securities are categorized in Level I or II of the fair value hierarchy, as observable market data are readily available. From time to time, certain equity securities may be categorized in Level III of the fair value hierarchy due to a lack of market-based transaction data or the use of model-based valuations.

*Other investments*—These securities primarily consist of commercial paper and short-term certificates of deposit, which are categorized in Level II of the fair value hierarchy. Other investments also contains convertible notes of non-reporting issuers, which are categorized in Level III of the fair value hierarchy due to a lack of market-based transaction data.

We are responsible for the determination of the value of all investments carried at fair value and the supporting methodologies and assumptions. To assist us in this responsibility, we utilize independent third-party valuation service providers to gather, analyze and interpret market information and estimate fair values based upon relevant methodologies and assumptions for various asset classes and individual securities. We perform monthly quantitative and qualitative analyses on the prices received from third parties to determine whether the prices are reasonable estimates of fair value. Our analysis includes: (i) a review of the methodology used by third-party pricing services; (ii) a comparison of pricing services' valuations to other independent sources; (iii) a review of month-to-month price fluctuations; and (iv) a comparison of actual purchase and sale transactions with valuations received from third parties. These processes are designed to ensure that our investment values are accurately recorded, that the data inputs and valuation techniques utilized are appropriate and consistently applied and that the assumptions are reasonable and consistent with the objective of determining fair value.

### ***Investments***

We group assets in our investment portfolio into one of three main categories: held to maturity, available for sale or trading securities. Fixed-maturity securities for which we have the positive intent and ability to hold to maturity, if any, are classified as held to maturity and are reported at amortized cost. Trading securities are securities that are purchased and held primarily for the purpose of selling them in the near term, and are reported at fair value, with unrealized gains and losses reported as a separate component of income. Investments in securities not classified as held to maturity or trading securities are classified as available for sale and are reported at fair value, with unrealized gains and losses (net of tax) reported as a separate component of stockholders' equity as accumulated other comprehensive income (loss). Short-term investments consist of money market instruments, certificates of deposit and highly liquid, interest-bearing instruments with an original maturity of three months or less at the time of purchase. Amortization of premium and accretion of discount are calculated principally using the interest method over the term of the investment. Realized gains and losses on investments are recognized using the specific identification method.

We record an other-than-temporary impairment adjustment on a security with an unrealized loss if we intend to sell the impaired security, if it is more likely than not that we will be required to sell the impaired security prior to recovery of its amortized cost basis, or if the present value of cash flows we expect to collect is less than the amortized cost basis of the security. If a sale is likely, the security is classified as other-than-temporarily impaired and the full amount of the impairment is recognized as a loss in the statement of operations. Otherwise, losses on securities that are other-than-temporarily impaired are separated into: (i) the portion of loss that represents the credit loss and (ii) the portion that is due to other factors. The credit loss portion is recognized as a loss in the statement of operations, while the loss due to other factors is recognized in accumulated other comprehensive income (loss), net of taxes. A credit loss is determined to exist if the present value of discounted cash flows expected to be collected from the security is less than the cost basis of the security. The present value of discounted cash flows is determined using the original yield of the security. In evaluating whether a decline in value is other-than-temporary, we consider several factors in addition to the above, including, but not limited to, the following:

- the extent and the duration of the decline in value;
- the reasons for the decline in value (e.g., credit event, interest related or market fluctuations); and
- the financial position, access to capital and near term prospects of the issuer, including the current and future impact of any specific events.

### ***Income Taxes***

We provide for income taxes in accordance with the provisions of the accounting standard regarding accounting for income taxes. As required under this standard, our deferred tax assets and deferred tax liabilities are recognized under the balance sheet method, which recognizes the future tax effect of temporary differences between the amounts recorded in our consolidated financial statements and the tax bases of these amounts. Deferred tax assets and deferred tax liabilities are measured using the enacted tax rates that are expected to apply to taxable income in the periods in which the deferred tax asset or deferred tax liability is expected to be realized or settled.

We are required to establish a valuation allowance against our deferred tax assets when it is more likely than not that all or some portion of our deferred tax assets will not be realized. At each balance sheet date, we assess our need for a valuation allowance. Our assessment is based on all available evidence, both positive and negative. This requires management to exercise judgment and make assumptions regarding whether our deferred tax assets will be realized in future periods.

Our provision for income taxes for interim financial periods is based on an estimate of our annual effective tax rate for the full year of 2017 and 2016. When estimating our full year 2017 and 2016 effective tax rates, we adjust our forecasted pre-tax income for gains and losses on our investments, changes in the accounting for uncertainty in income taxes, changes in our beginning of year valuation allowance, and other adjustments. The impact of these items is accounted for as Discrete Items at the applicable federal tax rate.

The TCJA was enacted on December 22, 2017, and contains several key tax provisions that affect us, including the repeal of the corporate alternative minimum tax and a reduction of the corporate income tax rate to 21% effective January 1, 2018, among others. We are required to recognize the accounting effects of the TCJA in the period of enactment, such as remeasuring our deferred tax assets and liabilities as well as reassessing the net realizability of our deferred tax assets and liabilities. In December 2017, the SEC staff issued SAB 118, which allows us to record provisional estimates during a measurement period not to extend beyond one year of the enactment date. Since the TCJA was passed late in the fourth quarter of 2017, and ongoing guidance and accounting interpretation is expected over the next 12 months, we have accounted for the tax effects of the TCJA on a provisional basis. Our accounting for certain income tax effects is incomplete, but we have determined reasonable estimates for those effects. Our reasonable estimates are included in our financial statements as of December 31, 2017 and we expect to complete our accounting during the one-year measurement period from the enactment date. The ultimate impact of the TCJA may differ from our provisional estimates due to, among other things, future guidance that may be issued, changes in our interpretation or assumptions with respect to reversal periods, the outcome of our potential settlement of the IRS Matter and future actions that we may take as a result of the new tax law.



### ***Goodwill and Other Intangible Assets, Net***

Goodwill and other intangible assets were established primarily in connection with our acquisition of Clayton. Goodwill is an asset representing the estimated future economic benefits arising from the assets we have acquired that were not individually identified and separately recognized, and includes the value of discounted expected future cash flows of Clayton, Clayton's workforce, expected synergies with our other affiliates and other unidentifiable intangible assets. Goodwill is deemed to have an indefinite useful life and is subject to review for impairment annually, or more frequently, whenever circumstances indicate potential impairment at the reporting unit level. A reporting unit represents a business for which discrete financial information is available; more than one reporting unit may be aggregated into a single reporting unit if they have similar economic characteristics. Events that could result in an interim assessment of goodwill impairment and/or a potential impairment charge include, but are not limited to: (i) significant under-performance relative to historical or projected future operating results; (ii) significant changes in the strategy for the Services segment; (iii) significant negative industry or economic trends; and (iv) a decline in Radian's market capitalization below book value if such decline is attributable to the Services segment. Management regularly updates certain assumptions related to our projections, including the likelihood of achieving the assumed potential revenues from new initiatives and business strategies, and if these or other items have a significant negative impact on the reporting unit's projections we may perform additional analysis to determine whether an impairment charge is needed. Lower earnings over sustained periods also can lead to impairment of goodwill, which could result in a charge to earnings. The value of goodwill is primarily supported by revenue projections, which are mostly driven by projected transaction volume and margins.

In performing the quantitative analysis for our goodwill impairment test as of June 30, 2017, we elected to early adopt the update to the accounting standard regarding goodwill and other intangibles, as discussed in "Recent Accounting Pronouncements—*Accounting Standards Adopted During 2017*," below. This update simplifies the subsequent measurement of goodwill by eliminating step two of the goodwill impairment test. Under the new guidance, if indicators for impairment are present, we perform a quantitative analysis to evaluate our long-lived assets for potential impairment, and then determine the amount of the goodwill impairment by comparing a reporting unit's fair value to its carrying amount. After adjusting the carrying value for any impairment of other intangibles or long-lived assets, an impairment charge is recognized for any excess of the reporting unit's carrying amount over the reporting unit's estimated fair value, up to the full amount of the goodwill allocated to the reporting unit.

Intangible assets, other than goodwill, primarily consist of customer relationships, technology, trade name and trademarks, client backlog and non-competition agreements. Customer relationships represent the value of the specifically acquired customer relationships and are valued using the excess earnings approach using estimated client revenues, attrition rates, implied royalty rates and discount rates. The excess earnings approach estimates the present value of expected earnings in excess of a traditional return on business assets. Technology represents proprietary software used for loan review, underwriting and due diligence, managing the REO disposition process, performing surveillance of mortgage loan servicers, real estate valuations and client workflow solutions. Trade name and trademarks reflect the value inherent in the recognition of the "Clayton" name and its reputation. For purposes of our intangible assets, we use the term client backlog to refer to the estimated present value of fees to be earned for services performed on loans currently under surveillance or REO assets under management. The value of a non-competition agreement is an appraisal of potential lost revenues that would arise from an individual leaving to work for a competitor or initiating a competing enterprise. For financial reporting purposes, intangible assets with finite lives are amortized over their applicable estimated useful lives in a manner that approximates the pattern of expected economic benefit from each intangible asset.

The calculation of the estimated fair value of goodwill and other intangibles is performed primarily using an income approach and requires the use of significant estimates and assumptions that are highly subjective in nature, such as attrition rates, discount rates, future expected cash flows and market conditions. The most significant assumptions relate to the valuation of customer relationships. Our estimates are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable. Based on our most recent goodwill impairment analysis performed in the second quarter of 2017, we recognized an impairment charge of \$184.4 million. During the fourth quarter 2017, we performed a qualitative assessment of goodwill and concluded there were no events or circumstances that indicate an additional impairment of goodwill as of December 31, 2017. See Note 7 of Notes to Consolidated Financial Statements for additional information.



### ***Recent Accounting Pronouncements***

#### *Accounting Standards Adopted During 2017*

In March 2016, the FASB issued an update to the accounting standards for share-based payment transactions, including: (i) accounting for income taxes; (ii) classification of excess tax benefits on the statement of cash flows; (iii) forfeitures; (iv) minimum statutory tax withholding requirements; (v) classification of employee taxes paid on the statement of cash flows when an employer withholds shares for tax withholding purposes; (vi) the practical expedient for estimating the expected term; and (vii) intrinsic value. Among other things, the update requires: (i) all excess tax benefits and tax deficiencies to be recognized as income tax expense or benefit in the income statement as they occur; (ii) recognition of excess tax benefits, regardless of whether the benefits reduce taxes payable in the current period; and (iii) excess tax benefits to be classified along with other cash flows as an operating activity, rather than separated from other income tax cash flows as a financing activity. This update is effective for public companies for fiscal years beginning after December 15, 2016. Our adoption of this update, effective January 1, 2017, had an immaterial impact on our financial statements at implementation. As a result of implementing this new standard, however, we expect the potential for limited increased volatility in our effective tax rate and net earnings, and possible additional dilution in earnings per share calculations.

In January 2017, the FASB issued an update to the accounting standard regarding goodwill and other intangibles. This update simplifies the subsequent measurement of goodwill by eliminating step two of the goodwill impairment test. Instead, an entity should perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for any excess of the reporting unit's carrying amount over the reporting unit's estimated fair value, after adjusting the carrying value for any impairment of other intangibles or long-lived assets. The provisions of this update are effective for interim and annual goodwill impairment tests in fiscal years beginning after December 15, 2019, with early adoption permitted for interim or annual goodwill impairment tests performed after January 1, 2017. We elected to early adopt this update to perform the quantitative analysis for our goodwill impairment test as of June 30, 2017. See “—Goodwill and Other Intangible Assets, Net” above and Note 7 of Notes to Consolidated Financial Statements for additional information.

#### *Accounting Standards Not Yet Adopted*

In May 2014, the FASB issued an update to the accounting standard regarding revenue recognition. In accordance with the new standard, recognition of revenue occurs when a customer obtains control of promised goods or services, in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In addition, the new standard requires that reporting companies disclose the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. This update is not expected to change revenue recognition principles related to our investments and insurance products, which together represent the majority of our total revenues. This update is primarily applicable to revenues from our Services segment. In July 2015, the FASB delayed the effective date for this updated standard for public companies to interim and annual periods beginning after December 15, 2017, and subsequently issued various clarifying updates. Early adoption is permitted. This standard permits the use of either the full retrospective or the modified retrospective transition method. We currently anticipate using the modified retrospective method of adoption, with the cumulative effect of initially applying the guidance recognized at the date of adoption. We have reviewed current accounting policies and key contracts that are representative of our various products and services within the Services segment and are in the process of comparing our historical accounting policies and practices to the requirements of the new guidance. We have identified immaterial differences resulting from applying the new requirements to our contracts which mainly affect timing of revenue recognition. Given that most of our contracts are short-term in nature, we do not expect the impact to be material to our financial statements. We have also identified appropriate changes to our business processes, systems and controls to support recognition and disclosure under the new guidance.

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

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In January 2016, the FASB issued an update that makes certain changes to the standard for the accounting of financial instruments. Among other things, the update requires: (i) equity investments to be measured at fair value with changes in fair value recognized in net income (loss); (ii) the use of the exit price notion when measuring the fair value of financial instruments for disclosure purposes; (iii) separate presentation of financial assets and financial liabilities by measurement category and form of financial asset; and (iv) separate presentation in other comprehensive income of the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk (also referred to as "own credit") when the organization has elected to measure the liability at fair value in accordance with the fair value option for financial instruments. The update also eliminates the requirement to disclose the methods and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the balance sheet. This update is effective for public companies for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is not permitted, with the exception of the "own credit" provision. Our adoption of this update effective January 1, 2018 had an immaterial impact to our financial statements and expected disclosures. As a result of implementing this standard, we expect the potential for increased volatility in earnings.

In February 2016, the FASB issued an update that replaces the existing accounting and disclosure requirements for leases of property, plant and equipment. The update requires lessees to recognize, as of the lease commencement date, assets and liabilities for all leases with lease terms of more than 12 months, which is a change from the current GAAP requirement to recognize only capital leases on the balance sheet. Pursuant to the new standard, the liability initially recognized for the lease obligation is equal to the present value of the lease payments not yet made, discounted over the lease term at the implicit interest rate of the lease, if available, or otherwise at the lessee's incremental borrowing rate. The lessee is also required to recognize an asset for its right to use the underlying asset for the lease term, based on the liability subject to certain adjustments, such as for initial direct costs. Leases are required to be classified as either operating or finance, with expense on operating leases recorded as a single lease cost on a straight-line basis. For finance leases, interest expense on the lease liability is required to be recognized separately from the straight-line amortization of the right-of-use asset. Quantitative disclosures are required for certain items, including the cost of leases, the weighted-average remaining lease term, the weighted-average discount rate and a maturity analysis of lease liabilities. Additional qualitative disclosures are also required regarding the nature of the leases, such as basis, terms and conditions of: (i) variable interest payments; (ii) extension and termination options; and (iii) residual value guarantees. This update is effective for public companies for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted. The new standard must be adopted by applying the new guidance as of the beginning of the earliest comparative period presented, using a modified retrospective transition approach with certain optional practical expedients. We are currently evaluating the impact to our financial statements and future disclosures as a result of this update. See Note 13 of Notes to Consolidated Financial Statements for more information.

In June 2016, the FASB issued an update to the accounting standard regarding the measurement of credit losses on financial instruments. This update requires that financial assets measured at their amortized cost basis be presented at the net amount expected to be collected. Credit losses relating to available-for-sale debt securities are to be recorded through an allowance for credit losses, rather than a write-down of the asset, with the amount of the allowance limited to the amount by which fair value is less than amortized cost. This update is effective for public companies for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. Early adoption is permitted for the fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. We are currently evaluating the impact to our financial statements and future disclosures as a result of this update.

In October 2016, the FASB issued an update to the accounting standard regarding the accounting for income taxes. This update requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. This update will be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. This update is effective for public companies for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted, including adoption in the first interim period of the adoption year. We have concluded there is currently no impact to our financial statements and future disclosures as a result of this update.

In March 2017, the FASB issued an update to the accounting standard regarding receivables. The new standard requires certain premiums on purchased callable debt securities to be amortized to the earliest call date. The amortization period for callable debt securities purchased at a discount will not be impacted. The provisions of this update are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted, including adoption in an interim period. We are currently evaluating the impact to our financial statements and future disclosures as a result of this update.

In February 2018, the FASB issued an update to the accounting standard regarding income statement reporting of comprehensive income and reclassification of certain tax effects from accumulated other comprehensive income. The amendments in this update allow a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the TCJA. The provisions of this update are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted, including adoption in an interim period, for reporting periods for which financial statements have not been available for issuance. We are currently evaluating the impact to our financial statements and future disclosures as a result of this update.

**Item 7A. Quantitative and Qualitative Disclosures About Market Risk.**

Market risk represents the potential for loss due to adverse changes in the value of financial instruments as a result of changes in market conditions. Examples of market risk include changes in interest rates, credit spreads, foreign currency exchange rates and equity prices. We perform sensitivity analyses to determine the effects of market risk exposures on our investment securities by determining the potential loss in future earnings, fair values or cash flows of market-risk-sensitive instruments resulting from one or more selected hypothetical changes in the above mentioned market risks.

**Interest-Rate Risk and Credit-Spread Risk**

The primary market risks in our investment portfolio are interest-rate risk and credit-spread risk, namely the fair value sensitivity of our fixed income securities to changes in interest rates and credit spreads, respectively. We regularly analyze our exposure to interest-rate risk and credit-spread risk and have determined that the fair value of our investments is materially exposed to changes in both interest rates and credit spreads.

Our sensitivity analysis for interest rates is based on the change in fair value of our fixed income securities, assuming a hypothetical instantaneous and parallel 100-basis point increase or decrease in the U.S. Treasury yield curve, with all other factors remaining constant. We calculate the duration of our fixed income securities, expressed in years, in order to estimate the interest-rate sensitivity of these securities, as shown in the table below.

Credit spread represents the additional yield on a fixed income security, above the risk-free rate, that is paid by an issuer to compensate investors for assuming the credit risk of the issuer and market liquidity of the fixed income security. We manage credit-spread risk on both an entity and group level, across issuer, maturity, sector and asset class. Our sensitivity analysis for credit-spread risk is based on the change in fair value of our fixed income securities, assuming a hypothetical 100-basis point increase or decrease in all credit spreads, with the exception of U.S. Treasury and agency obligations for which we have assumed no change in credit spreads, and assuming all other factors remain constant. Actual shifts in credit spreads generally vary by issuer and security, based on issuer-specific and security-specific factors such as credit quality, maturity, sector and asset class. Within a given asset class, investment grade securities generally exhibit less credit-spread volatility than securities with lower credit ratings. Our investment securities portfolio primarily consists of investment grade securities.

Our sensitivity analyses for interest-rate risk and credit-spread risk provide an indication of our investment portfolio's sensitivity to shifts in interest rates and credit spreads. However, the timing and magnitude of actual market changes may differ from the hypothetical assumptions used in our sensitivity calculations.

The following table illustrates the sensitivity of our investment portfolio to both interest-rate risk and credit-spread risk.

(\$ in millions)	Short-term and Available for Sale		Trading	
	December 31, 2017	December 31, 2016	December 31, 2017	December 31, 2016
Carrying value of fixed income investment portfolio (1) . . . . .	\$ 4,009.8	\$ 3,580.0	\$ 606.4	\$ 879.9
Percentage of fixed income investment portfolio compared to total investment portfolio (2) . . . .	85.8 %	80.2 %	13.0 %	19.7 %
Average duration of fixed income portfolio . . . .	4.4 years	5.0 years	5.1 years	5.8 years
Interest-rate risk increase/(decrease) in market value				
+100 basis points - \$ . . . . .	\$ (169.8)	\$ (172.6)	\$ (29.7)	\$ (48.0)
+100 basis points - % (3) . . . . .	(4.2)%	(4.8)%	(4.9)%	(5.5)%
- 100 basis points - \$ . . . . .	\$ 184.7	\$ 183.0	\$ 32.5	\$ 53.1
- 100 basis points - % (3) . . . . .	4.6 %	5.1 %	5.4 %	6.0 %
Credit-spread risk increase/(decrease) in market value				
+100 basis points - \$ . . . . .	\$ (183.8)	\$ (159.5)	\$ (30.4)	\$ (49.3)
+100 basis points - % (3) . . . . .	(4.6)%	(4.5)%	(5.0)%	(5.6)%
- 100 basis points - \$ . . . . .	\$ 148.6	\$ 151.9	\$ 24.6	\$ 46.3
- 100 basis points - % (3) . . . . .	3.7 %	4.2 %	4.1 %	(5.3)%

- (1) Total fixed income securities include fixed-maturity investments available for sale, trading securities and short-term investments and exclude reinvested cash collateral held under securities lending agreements. At December 31, 2017, fixed income securities shown above also include \$134.1 million invested in certain fixed income exchange-traded funds that are classified as equity securities in our consolidated balance sheets, as well as \$20.7 million in fixed income securities loaned under securities lending agreements that are classified as other assets in our consolidated balance sheets.
- (2) Total investment portfolio comprises total investments per the consolidated balance sheets adjusted for securities loaned under securities lending agreements that are classified as other assets in our consolidated balance sheets.
- (3) Change in value expressed as a percentage of the market value of the related fixed income portfolio.

The change in the average duration of our total fixed income portfolio, from 5.1 years at December 31, 2016, to 4.5 years at December 31, 2017, was primarily due to our increased investment in short-term and floating rate securities at December 31, 2017. To assist us in setting duration targets for the investment portfolio, we analyze: (i) the interest-rate sensitivities of our liabilities; (ii) entity specific cash flows from our insurance businesses, including prepayment risk associated with premium flows and credit losses, under various economic scenarios; (iii) return, volatility and correlation of various asset classes and the interconnection with our liabilities; and (iv) our current risk appetite.

*Securities Lending Agreements.* Radian Guaranty and Radian Reinsurance from time to time enter into certain short-term securities lending agreements with third-party Borrowers for the purpose of increasing the yield on our investment securities portfolio with minimal incremental risk. Market factors, including changes in interest rates, credit spreads and equity prices, may impact the timing or magnitude of cash outflows for the return of cash collateral. For the purpose of illustrating our interest-rate risk and credit-spread risk, we have included our fixed income securities loaned in the sensitivity table above. As of December 31, 2017, the carrying value of these securities was \$28.0 million. We had no loaned securities at December 31, 2016.

Under our securities lending agreements, the Borrower generally may return the loaned securities to us at any time, which would require us to return the cash and other collateral within the standard settlement period for the loaned securities on the principal exchange or market in which the securities are traded. We manage this liquidity risk associated with the cash collateral by maintaining the cash collateral in a short-term money-market fund with daily availability.

The credit risk under these programs is reduced by the amounts of collateral received. On a daily basis, the value of the underlying securities that we have loaned to the Borrowers is compared to the value of cash and securities collateral we received from the Borrowers, and additional cash or securities are requested or returned, as applicable. In addition, we are indemnified against counterparty credit risk by the intermediary. We also have the right to request the return of the loaned securities at any time. For additional information on our securities lending agreements, see Note 6 of Notes to Consolidated Financial Statements.

#### **Foreign Exchange Rate Risk**

As of December 31, 2017 and 2016, we did not hold any foreign currency denominated securities in our investment portfolio. Exchange gains and losses on foreign currency transactions from our foreign operations have not been material due to the limited amount of business performed in those locations. Currency risk is further limited because, in general, both the revenues and expenses of our foreign operations are denominated in the same functional currency, based on the country in which the operations occur.

#### **Equity Market Price**

At December 31, 2017, none of our equity securities were classified as trading securities. At December 31, 2017, the market value and cost of the equity securities in our investment portfolio were \$162.8 million and \$163.1 million, respectively. These amounts include market value and cost of fixed income exchange-traded funds of \$134.0 million and \$135.0 million, respectively, which are subject to interest-rate risk and credit-spread risk consistent with our other fixed income securities. Therefore, these fixed income exchange-traded funds have been included in the table above for purposes of illustrating our sensitivity to these risks.

The remaining \$28.8 million and \$28.1 million of market value and cost, respectively, of equity securities at December 31, 2017, consists of publicly-traded business development company equity securities and equity-related exchange-traded funds. Due to our limited basis in these investments at December 31, 2017, our exposure to changes in equity market prices is not significant. See “Item 1. Business—Investment Policy and Portfolio” for additional information on risk management.

**Item 8. Financial Statements and Supplementary Data.**

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## REPORT ON MANAGEMENT'S RESPONSIBILITY

Management is responsible for the preparation, integrity and objectivity of the Consolidated Financial Statements and other financial information presented in this annual report. The accompanying Consolidated Financial Statements were prepared in accordance with accounting principles generally accepted in the United States of America, applying certain estimations and judgments as required.

Our board of directors exercises its responsibility for the financial statements through its Audit Committee, which consists entirely of independent non-management board members. The Audit Committee meets periodically with management and with PricewaterhouseCoopers LLP, the independent registered public accounting firm retained to audit our Consolidated Financial Statements, both privately and with management present, to review accounting, auditing, internal control and financial reporting matters.

The accompanying report of PricewaterhouseCoopers LLP is based on its audit, which it is required to conduct in accordance with the standards of the Public Company Accounting Oversight Board (U.S.), and which includes the consideration of our internal control over financial reporting to establish a basis for reliance thereon in determining the nature, timing and extent of audit tests to be applied.

Richard G. Thornberry  
Chief Executive Officer

J. Franklin Hall  
Senior Executive Vice President and Chief Financial Officer

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Radian Group Inc.

### ***Opinions on the Financial Statements and Internal Control over Financial Reporting***

We have audited the accompanying consolidated balance sheets of Radian Group Inc. and its subsidiaries as of December 31, 2017 and 2016, and the related consolidated statements of operations, comprehensive income, changes in common stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2017, including the related notes and financial statement schedules listed in the index appearing under Item 15(a)(3) (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2017, 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2017 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

### ***Basis for Opinions***

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

### ***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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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/ PricewaterhouseCoopers LLP

Philadelphia, PA  
February 28, 2018

We have served as the Company's auditor since 2007.

**Radian Group Inc.**  
**CONSOLIDATED BALANCE SHEETS**

	December 31, 2017	December 31, 2016
<b>(\$ in thousands, except share and per-share amounts)</b>		
<b>Assets</b>		
Investments (Note 6)		
Fixed-maturities available for sale—at fair value (amortized cost \$3,426,217 and \$2,856,468) . . . . .	\$ 3,458,719	\$ 2,838,512
Equity securities available for sale—at fair value (cost \$163,106 and \$1,330) . . . . .	162,830	1,330
Trading securities—at fair value . . . . .	606,401	879,862
Short-term investments—at fair value (includes \$19,357 and \$0 of reinvested cash collateral held under securities lending agreements) . . . . .	415,658	741,531
Other invested assets . . . . .	334	1,195
Total investments . . . . .	4,643,942	4,462,430
Cash . . . . .	80,569	52,149
Restricted cash . . . . .	15,675	9,665
Accounts and notes receivable . . . . .	72,558	77,631
Deferred income taxes, net (Note 10) . . . . .	229,567	411,798
Goodwill and other intangible assets, net (Note 7) . . . . .	64,212	276,228
Prepaid reinsurance premium (Note 2) . . . . .	386,509	229,438
Other assets (Note 9) . . . . .	407,849	343,835
Total assets . . . . .	\$ 5,900,881	\$ 5,863,174
<b>Liabilities and Stockholders' Equity</b>		
Unearned premiums . . . . .	\$ 723,938	\$ 681,222
Reserve for losses and loss adjustment expenses ("LAE") (Note 11) . . . . .	507,588	760,269
Long-term debt (Note 12) . . . . .	1,027,074	1,069,537
Reinsurance funds withheld (Note 2) . . . . .	288,398	158,001
Other liabilities . . . . .	353,845	321,859
Total liabilities . . . . .	2,900,843	2,990,888
Commitments and Contingencies (Note 13)		
Stockholders' equity		
Common stock: par value \$.001 per share; 485,000,000 shares authorized at December 31, 2017 and 2016; 233,416,989 and 232,091,921 shares issued at December 31, 2017 and 2016, respectively; 215,814,188 and 214,521,079 shares outstanding at December 31, 2017 and 2016, respectively . . . . .	233	232
Treasury stock, at cost: 17,602,801 and 17,570,842 shares at December 31, 2017 and 2016, respectively . . . . .	(893,888)	(893,332)
Additional paid-in capital . . . . .	2,754,275	2,779,891
Retained earnings . . . . .	1,116,333	997,890
Accumulated other comprehensive income (loss) (Note 17) . . . . .	23,085	(12,395)
Total stockholders' equity . . . . .	3,000,038	2,872,286
Total liabilities and stockholders' equity . . . . .	\$ 5,900,881	\$ 5,863,174

See Notes to Consolidated Financial Statements.

**Radian Group Inc.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

<b>(In thousands, except per-share amounts)</b>	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
<b>Revenues:</b>			
Net premiums earned—insurance . . . . .	\$ 932,773	\$ 921,769	\$ 915,908
Services revenue . . . . .	155,103	168,894	157,216
Net investment income . . . . .	127,248	113,466	81,537
Net gains on investments and other financial instruments . . . . .	3,621	30,751	35,693
Other income . . . . .	2,886	3,572	2,899
Total revenues . . . . .	1,221,631	1,238,452	1,193,253
<b>Expenses:</b>			
Provision for losses . . . . .	135,154	202,788	198,585
Policy acquisition costs . . . . .	24,277	23,480	22,424
Cost of services . . . . .	104,599	114,174	93,715
Other operating expenses . . . . .	267,321	244,896	242,405
Restructuring and other exit costs (Note 1) . . . . .	17,268	—	—
Interest expense . . . . .	62,761	81,132	91,102
Loss on induced conversion and debt extinguishment (Note 12) . . . . .	51,469	75,075	94,207
Impairment of goodwill (Note 7) . . . . .	184,374	—	—
Amortization and impairment of other intangible assets . . . . .	27,671	13,221	12,986
Total expenses . . . . .	874,894	754,766	755,424
Pretax income from continuing operations . . . . .	346,737	483,686	437,829
Income tax provision . . . . .	225,649	175,433	156,290
Net income from continuing operations . . . . .	121,088	308,253	281,539
Income from discontinued operations, net of tax . . . . .	—	—	5,385
Net income . . . . .	\$ 121,088	\$ 308,253	\$ 286,924
<b>Net income per share:</b>			
<b>Basic:</b>			
Net income from continuing operations . . . . .	\$ 0.56	\$ 1.46	\$ 1.41
Income from discontinued operations, net of tax . . . . .	—	—	0.03
Net income . . . . .	\$ 0.56	\$ 1.46	\$ 1.44
<b>Diluted:</b>			
Net income from continuing operations . . . . .	\$ 0.55	\$ 1.37	\$ 1.20
Income from discontinued operations, net of tax . . . . .	—	—	0.02
Net income . . . . .	\$ 0.55	\$ 1.37	\$ 1.22
Weighted-average number of common shares outstanding—basic . . . . .	215,321	211,789	199,910
Weighted-average number of common and common equivalent shares outstanding—diluted . . . . .	220,406	229,258	246,332
Dividends per share . . . . .	\$ 0.01	\$ 0.01	\$ 0.01

See Notes to Consolidated Financial Statements.

**Radian Group Inc.**

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**

<b>(In thousands)</b>	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Net income . . . . .	\$ 121,088	\$ 308,253	\$ 286,924
Other comprehensive income (loss), net of tax (Note 17):			
Unrealized gains (losses) on investments:			
Unrealized holding gains (losses) arising during the period . . . . .	31,903	8,782	(22,573)
Less: Reclassification adjustment for net gains (losses) included in net income . . . . .	(2,642)	2,251	44,183
Net unrealized gains (losses) on investments . . . . .	34,545	6,531	(66,756)
Foreign currency translation adjustments:			
Unrealized foreign currency translation adjustments . . . . .	150	(474)	(217)
Less: Reclassification adjustment for liquidation of foreign subsidiary and other adjustments included in net income . . . . .	(721)	—	—
Net foreign currency translation adjustments . . . . .	871	(474)	(217)
Activity related to investments recorded as assets held for sale . . . . .	—	—	(3,254)
Net actuarial gains . . . . .	64	25	265
Other comprehensive income (loss), net of tax . . . . .	35,480	6,082	(69,962)
Comprehensive income . . . . .	\$ 156,568	\$ 314,335	\$ 216,962

See Notes to Consolidated Financial Statements.



**Radian Group Inc.**

**CONSOLIDATED STATEMENTS OF CHANGES IN COMMON STOCKHOLDERS' EQUITY**

<b>(In thousands)</b>	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
<b>Common Stock</b>			
Balance, beginning of period . . . . .	\$ 232	\$ 224	\$ 209
Impact of extinguishment of Convertible Senior Notes due 2017 and 2019 (Note 12) . . . . .	—	17	28
Issuance of common stock under incentive and benefit plans . . . . .	1	—	1
Termination of capped calls (Note 12) . . . . .	—	—	(3)
Shares repurchased under share repurchase program (Note 14) . . . . .	—	(9)	(11)
Balance, end of period . . . . .	<u>233</u>	<u>232</u>	<u>224</u>
<b>Treasury Stock</b>			
Balance, beginning of period . . . . .	(893,332)	(893,176)	(892,961)
Repurchases of common stock under incentive plans . . . . .	(556)	(156)	(215)
Balance, end of period . . . . .	<u>(893,888)</u>	<u>(893,332)</u>	<u>(893,176)</u>
<b>Additional Paid-in Capital</b>			
Balance, beginning of period . . . . .	2,779,891	2,716,618	2,531,513
Issuance of common stock under incentive and benefit plans . . . . .	8,635	2,117	2,422
Stock-based compensation . . . . .	13,491	18,257	15,513
Impact of extinguishment of Convertible Senior Notes due 2017 and 2019 (Note 12) . . . . .	(52,700)	143,078	336,358
Cumulative effect of adoption of the accounting standard update for share-based payment transactions . . . . .	756	—	—
Termination of capped calls (Note 12) . . . . .	4,208	—	13,153
Change in equity component of currently redeemable convertible senior notes . . . . .	—	—	19,648
Shares repurchased under share repurchase program (Note 14) . . . . .	(6)	(100,179)	(201,989)
Balance, end of period . . . . .	<u>2,754,275</u>	<u>2,779,891</u>	<u>2,716,618</u>
<b>Retained Earnings</b>			
Balance, beginning of period . . . . .	997,890	691,742	406,814
Net income . . . . .	121,088	308,253	286,924
Dividends declared . . . . .	(2,154)	(2,105)	(1,996)
Cumulative effect of adoption of the accounting standard update for share-based payment transactions, net of tax . . . . .	(491)	—	—
Balance, end of period . . . . .	<u>1,116,333</u>	<u>997,890</u>	<u>691,742</u>
<b>Accumulated Other Comprehensive Income (Loss)</b>			
Balance, beginning of period . . . . .	(12,395)	(18,477)	51,485
Net foreign currency translation adjustment, net of tax . . . . .	871	(474)	(217)
Net unrealized gains (losses) on investments, net of tax . . . . .	34,545	6,531	(66,756)
Activity related to investments recorded as assets held for sale . . . . .	—	—	(3,254)
Net actuarial gains . . . . .	64	25	265
Balance, end of period . . . . .	<u>23,085</u>	<u>(12,395)</u>	<u>(18,477)</u>
<b>Total Stockholders' Equity</b> . . . . .	<u>\$ 3,000,038</u>	<u>\$ 2,872,286</u>	<u>\$ 2,496,931</u>

See Notes to Consolidated Financial Statements.

**Radian Group Inc.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

<b>(In thousands)</b>	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
<b>Cash flows from operating activities:</b>			
Net income . . . . .	\$ 121,088	\$ 308,253	\$ 286,924
Less: Income (loss) from discontinued operations, net of tax . . . . .	—	—	5,385
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Net (gains) losses on investments and other financial instruments . . . . .	(3,621)	(30,751)	(35,693)
Loss on induced conversion and debt extinguishment . . . . .	51,469	75,075	94,207
Deferred income tax provision . . . . .	166,527	170,887	156,170
Impairment of goodwill . . . . .	184,374	—	—
Amortization and impairment of other intangible assets . . . . .	27,797	13,221	12,986
Depreciation, other amortization, and other impairments, net . . . . .	58,038	57,795	68,639
Change in:			
Accounts and notes receivable . . . . .	3,628	(16,011)	25,656
Prepaid reinsurance premiums . . . . .	(157,071)	(188,947)	16,800
Unearned premiums . . . . .	42,716	862	35,796
Reserve for losses and LAE . . . . .	(252,681)	(216,135)	(583,633)
Reinsurance funds withheld . . . . .	130,397	158,001	—
Other assets . . . . .	(16,491)	(7,662)	7,799
Other liabilities . . . . .	4,405	57,136	(66,786)
Net cash provided by (used in) operating activities, continuing operations . . . . .	360,575	381,724	13,480
Net cash provided by (used in) operating activities, discontinued operations . . . . .	—	—	(1,759)
Net cash provided by (used in) operating activities . . . . .	360,575	381,724	11,721
<b>Cash flows from investing activities:</b>			
Proceeds from sales of:			
Fixed-maturity investments available for sale . . . . .	888,219	687,173	20,100
Equity securities available for sale . . . . .	38,318	74,868	146,049
Trading securities . . . . .	194,784	290,855	78,826
Proceeds from redemptions of:			
Fixed-maturity investments available for sale . . . . .	463,548	337,630	103,595
Trading securities . . . . .	79,296	123,645	221,914
Purchases of:			
Fixed-maturity investments available for sale . . . . .	(1,947,916)	(1,990,652)	(1,486,318)
Equity securities available for sale . . . . .	(213,469)	(830)	(75,538)
Sales, redemptions and (purchases) of:			
Short-term investments, net . . . . .	324,258	334,456	222,882
Other assets and other invested assets, net . . . . .	882	2,489	16,717
Net cash received (transferred) in sale of subsidiaries . . . . .	(650)	—	784,866
Purchases of property and equipment, net . . . . .	(28,676)	(35,542)	(25,466)
Acquisitions, net of cash acquired . . . . .	(86)	(150)	(9,834)
Net cash provided by (used in) investing activities, continuing operations . . . . .	(201,492)	(176,058)	(2,207)

**Radian Group Inc.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

<b>(In thousands)</b>	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Net cash provided by (used in) investing activities, discontinued operations . . . . .	—	—	4,999
Net cash provided by (used in) investing activities . . . . .	(201,492)	(176,058)	2,792
<b>Cash flows from financing activities:</b>			
Dividends paid . . . . .	(2,154)	(2,105)	(1,996)
Issuance of long-term debt, net . . . . .	442,163	343,417	343,334
Purchases and redemptions of long-term debt . . . . .	(593,527)	(445,072)	(156,172)
Proceeds from termination of capped calls . . . . .	4,208	—	13,150
Issuance of common stock . . . . .	7,132	717	1,285
Purchase of common shares . . . . .	(6)	(100,188)	(202,000)
Credit facility commitment fees paid . . . . .	(1,993)	—	—
Change in payable under securities lending agreements . . . . .	19,357	—	—
Excess tax benefits from stock-based awards (Note 2) . . . . .	—	333	3,000
Repayment of other borrowings . . . . .	(264)	(371)	—
Net cash provided by (used in) financing activities, continuing operations . . . . .	(125,084)	(203,269)	601
Net cash provided by (used in) financing activities, discontinued operations . . . . .	—	—	—
Net cash provided by (used in) financing activities . . . . .	(125,084)	(203,269)	601
Effect of exchange rate changes on cash and restricted cash . . . . .	431	(481)	(133)
Increase (decrease) in cash and restricted cash . . . . .	34,430	1,916	14,981
Cash and restricted cash, beginning of period . . . . .	61,814	59,898	44,496
Less: Increase (decrease) in cash of business held for sale . . . . .	—	—	(421)
Cash and restricted cash, end of period . . . . .	\$ 96,244	\$ 61,814	\$ 59,898
<b>Supplemental disclosures of cash flow information:</b>			
Income taxes paid (received), continuing operations . . . . .	\$ 94,328	\$ (673)	\$ 3,712
Income taxes paid, discontinued operations . . . . .	—	—	2,036
Interest paid . . . . .	57,453	65,531	61,077

See Notes to Consolidated Financial Statements.

## 1. Description of Business and Recent Developments

We are a diversified mortgage and real estate services business, providing both credit-related insurance coverage and other credit risk management solutions, as well as a broad array of mortgage and real estate services. We have two reportable business segments—Mortgage Insurance and Services. On April 1, 2015, Radian Guaranty completed the sale of its former financial guaranty subsidiary, Radian Asset Assurance, to Assured, pursuant to the Radian Asset Assurance Stock Purchase Agreement. The operating results of Radian Asset Assurance were classified as discontinued operations. See Note 18 for additional information related to discontinued operations.

### Mortgage Insurance

Our Mortgage Insurance segment provides credit-related insurance coverage, principally through private mortgage insurance, as well as other credit risk management solutions, to mortgage lending institutions nationwide. Private mortgage insurance plays an important role in the U.S. housing finance system because it promotes affordable home ownership and helps protect mortgage lenders, investors or other beneficiaries by mitigating default-related losses on residential mortgage loans. Generally, these loans are made to home buyers who make down payments of less than 20% of the purchase price for their home or, in the case of refinancings, have less than 20% equity in their homes. Private mortgage insurance also facilitates the sale of these low down payment loans in the secondary mortgage market, most of which are sold to the GSEs.

Our Mortgage Insurance segment currently offers primary mortgage insurance coverage on residential first-lien mortgage loans. Our total direct primary mortgage insurance RIF was \$51.3 billion as of December 31, 2017. We provide our mortgage insurance products and services mainly through our wholly-owned subsidiary, Radian Guaranty.

The GSEs and state insurance regulators impose various capital and financial requirements on our insurance subsidiaries. These include Risk-to-capital, other risk-based capital measures and surplus requirements, as well as the PMIERS financial requirements discussed below. Failure to comply with these capital and financial requirements may limit the amount of insurance that our insurance subsidiaries may write or prohibit our insurance subsidiaries from writing insurance altogether. The GSEs and state insurance regulators also possess significant discretion with respect to our insurance subsidiaries and all aspects of their business. See Note 19 for additional regulatory information.

*PMIERS.* In order to be eligible to insure loans purchased by the GSEs, mortgage insurers such as Radian Guaranty must meet the GSEs' eligibility requirements, or PMIERS. At December 31, 2017, Radian Guaranty is an approved mortgage insurer under the PMIERS and is in compliance with the PMIERS financial requirements.

The PMIERS are comprehensive, covering virtually all aspects of the business and operations of a private mortgage insurer, including internal risk management and quality controls, the relationship between the GSEs and the approved insurer, as well as the approved insurer's financial condition. In addition, private mortgage insurers are required under the PMIERS to obtain the prior consent of the GSEs before taking certain actions, which may include paying dividends, entering into various intercompany agreements, and commuting or reinsuring risk, among others. If Radian Guaranty is unable to satisfy the requirements set forth in the PMIERS, the GSEs could restrict it from conducting certain types of business with them or take actions that may include not purchasing loans insured by Radian Guaranty.

The PMIERS financial requirements require that a mortgage insurer's Available Assets meet or exceed its Minimum Required Assets. The GSEs may amend the PMIERS at any time, and they have broad discretion to interpret the requirements, which could impact the calculation of Radian Guaranty's Available Assets and/or Minimum Required Assets, and the PMIERS specifically provide that the factors that are applied to calculate and determine a mortgage insurer's Minimum Required Assets may be updated every two years following a minimum of 180 days' notice, or more frequently, as determined by the GSEs, to reflect changes in macroeconomic conditions or loan performance. On December 18, 2017, Radian Guaranty received, on a confidential basis, a summary of proposed changes to the PMIERS. Although it is reasonably likely that updates to the PMIERS could, among other things, result in a material increase to Radian Guaranty's capital requirements under the PMIERS financial requirements, Radian expects to be able to fully comply with the proposed PMIERS as of the expected effective date in late 2018.

From time to time, we enter into reinsurance transactions as part of our strategy to manage our capital position and risk profile, which includes managing Radian Guaranty's position under the PMIERS financial requirements. The credit that we receive under the PMIERS financial requirements for these transactions is subject to the periodic review of the GSEs.

## Services

Our Services business is a fee-for-service business that offers a broad array of services to market participants across the mortgage and real estate value chain. These comprise mortgage services and real estate services that provide mortgage lenders, financial institutions, mortgage and real estate investors and government entities, among others, with information and other resources and services that are used to originate, evaluate, acquire, securitize, service and monitor residential real estate and loans secured by residential real estate.

Our mortgage services offerings include transaction management services such as loan review, RMBS securitization and distressed asset reviews, servicer and loan surveillance and underwriting. Our real estate services include: REO asset management; review and valuation services related to single family rental properties; real estate valuation services; real estate brokerage services; and title and settlement services that include title search, settlement and closing services.

## Discontinued Operations

On April 1, 2015, Radian Guaranty completed the sale of 100% of the issued and outstanding shares of Radian Asset Assurance, its former financial guaranty subsidiary, for a purchase price of approximately \$810 million, pursuant to the Radian Asset Assurance Stock Purchase Agreement. The divestiture was intended to better position Radian Guaranty to comply with the PMIERS and to support Radian's strategic focus on the mortgage and real estate industries. After closing costs and other adjustments, Radian Guaranty received net proceeds of \$789 million. For additional information related to discontinued operations, see Note 18.

## 2017 Developments

*Capital and Liquidity Actions.* During 2017, we completed a series of capital and liquidity actions, including: (i) extending the weighted average maturity of our Senior Notes by purchasing a portion of our Senior Notes due 2019, 2020 and 2021 through tender offers and issuing our Senior Notes due 2024; (ii) eliminating our Convertible Senior Notes due 2017 and 2019; (iii) entering into a \$225 million unsecured revolving credit facility; and (iv) renewing our share repurchase program. These transactions strengthened our capital and liquidity position and improved our financial flexibility, including by improving our debt maturity profile. See Notes 12 and 14 for additional information.

*Restructuring and Other Exit Costs.* Based on our strategic assessment of the Services business, on September 5, 2017, the Company committed to a plan to restructure the Services business and incurred pretax restructuring charges of \$17.3 million in 2017, including \$6.8 million in cash payments. Additional pretax restructuring charges of approximately \$3.8 million, including approximately \$3.0 million in cash, are expected to be recognized within the next 12 months. The total restructuring charges of approximately \$21.1 million are expected to consist of: (i) asset impairment charges (including the loss recognized on the sale of our EuroRisk business) of approximately \$11.3 million; (ii) employee severance and benefit costs of approximately \$7.1 million; (iii) facility and lease termination costs of approximately \$1.8 million; and (iv) contract termination and other restructuring costs of approximately \$0.9 million. See Note 7 for additional information, including the events that led to the restructuring decision.

*Impairment of Goodwill and Other Intangible Assets.* During the second quarter of 2017, we recorded a goodwill impairment charge and an impairment charge for other intangible assets. See Note 7 for additional information.

*Reinsurance.* During 2017, we entered into the 2018 Single Premium QSR Transaction with a panel of reinsurers and we amended the terms of the 2016 Single Premium QSR Transaction to increase the ceded risk on performing loans from 35% to 65% for the 2015 through 2017 vintages. See Note 8 for additional information about our reinsurance transactions.

## 2. Significant Accounting Policies

### Basis of Presentation

Our consolidated financial statements are prepared in accordance with GAAP and include the accounts of Radian Group Inc. and its subsidiaries. All intercompany accounts and transactions, and intercompany profits and losses, have been eliminated. Certain prior period amounts have been reclassified to conform to current period presentation.

We refer to Radian Group Inc. together with its consolidated subsidiaries as "Radian," the "Company," "we," "us" or "our," unless the context requires otherwise. We generally refer to Radian Group Inc. alone, without its consolidated subsidiaries, as "Radian Group." Unless otherwise defined in this report, certain terms and acronyms used throughout this report are defined in the Glossary of Abbreviations and Acronyms included as part of this report.

## Use of Estimates

The preparation of financial statements in conformity with GAAP requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of our contingent assets and liabilities at the dates of the financial statements and the reported amounts of revenues and expenses during the reporting periods. While the amounts included in our consolidated financial statements include our best estimates and assumptions, actual results may vary materially.

## Risks and Uncertainties

Radian Group and its subsidiaries are subject to risks and uncertainties that could affect amounts reported in our financial statements in future periods. Our future performance and financial condition are subject to significant risks and uncertainties that could cause actual results to be materially different from our estimates and forward-looking statements.

## Reserve for Losses and LAE

We establish reserves to provide for losses and LAE, which include the estimated costs of settling claims in our Mortgage Insurance segment, in accordance with the accounting standard regarding accounting and reporting by insurance enterprises. Although this standard specifically excludes mortgage insurance from its guidance relating to the reserve for losses, because there is no specific guidance for mortgage insurance, we establish reserves for mortgage insurance as described below, using the guidance contained in this standard supplemented with other accounting guidance.

Estimating our loss reserves involves significant reliance upon assumptions and estimates with regard to the likelihood, magnitude and timing of each potential loss, including an estimate of the impact of our Loss Mitigation Activities. The models, assumptions and estimates we use to establish loss reserves may prove to be inaccurate, especially during an extended economic downturn or a period of extreme market volatility and uncertainty. As such, we cannot be certain that our reserve estimate will be adequate to cover ultimate losses on incurred defaults. For example, our mortgage insurance loss reserves generally increase as defaulted loans age, because historically, as defaulted loans age, they have been more likely to result in foreclosure, and therefore, have been more likely to result in a claim payment. While we believe this remains accurate, following the financial crisis, there are a significant number of loans in our defaulted portfolio that have been in default for an extended period of time, but which have not been subject to foreclosure, and therefore, have not resulted in claims. As a result, significant uncertainty remains with respect to the ultimate resolution of these aged defaults. This uncertainty requires management to use considerable judgment in estimating the rate at which these loans will result in claims.

Commutations and other negotiated terminations of our insured risks in our Mortgage Insurance segment provide us with an opportunity to exit exposures for an agreed upon payment, or payments, sometimes at an amount less than the previously estimated ultimate liability. Once all exposures relating to such policies are extinguished, all reserves for losses and LAE and other balances relating to the insured policies are generally reversed, with any remaining net gain or loss typically recorded through provision for losses. We take into consideration the specific contractual and economic terms for each individual agreement when accounting for our commutations or other negotiated terminations, which may result in differences in the accounting for these transactions.

In our Mortgage Insurance business, the default and claim cycle begins with the receipt of a default notice from the loan servicer. Reserves for losses are established upon receipt of notification from servicers that a borrower has missed two monthly payments, which is when we consider a loan to be in default for financial statement and internal tracking purposes. We also establish reserves for associated LAE, consisting of the estimated cost of the claims administration process, including legal and other fees and expenses associated with administering the claims process.

We maintain an extensive database of claim payment history, and use models based on a variety of loan characteristics to determine the likelihood that a default will reach claim status.



With respect to loans that are in default, considerable judgment is exercised as to the adequacy of reserve levels. For purposes of reserve modeling, loans are aggregated into groups using a variety of factors. The attributes currently used to define the groups for purposes of developing various assumptions include, but are not limited to, the Stage of Default, the Time in Default and type of insurance (i.e., primary or pool). We use an actuarial projection methodology referred to as a “roll rate” analysis that uses historical claim frequency information to determine the projected ultimate Default to Claim Rates based on the Stage of Default and Time in Default as well as the date that a loan goes into default. With respect to new defaults in FEMA Designated Areas associated with Hurricanes Harvey and Irma received subsequent to those two disasters, we assume a lower gross Default to Claim Rate than for new defaults with similar characteristics from other areas, due to our expectations based on past experience with other natural disasters, that a significant portion of these defaults will not result in claims. The Default to Claim Rate also includes our estimates with respect to expected Rescissions and Claim Denials, which have the effect of reducing our Default to Claim Rates. We forecast the impact of our Loss Mitigation Activity in protecting us against fraud, underwriting negligence, breach of representation and warranties, inadequate documentation of submitted claims and other items that may give rise to Rescissions or cancellations and Claim Denials, to help determine the Default to Claim Rate. Our Loss Mitigation Activities have resulted in challenges from certain lender and servicer customers, which have resulted in some reversals of our decisions regarding Rescissions, Claim Denials and Claim Curtailments in the ordinary course. Although we believe that our Loss Mitigation Activities are justified under our policies, certain challenges have resulted in disputes and litigation, which if resolved unfavorably to us, could require us to reassume the risk on, and increase loss reserves for, those policies or pay additional claims. See Note 7 for additional information. Our Master Policies specify the time period during which a suit or action arising from any right of the insured under the policy must be commenced. The assumptions embedded in our estimated Default to Claim Rate on our in-force default inventory include an adjustment to our estimated Rescissions and Claim Denials to account for the fact that we expect a certain number of policies to be reinstated and ultimately to be paid, as a result of valid challenges by such policy holders.

After estimating the Default to Claim Rate, we estimate Claim Severity based on the average of recently observed severity rates within product type, type of insurance, and Time in Default cohorts. These average severity estimates are then applied to individual loan coverage amounts to determine reserves. Similar to the Default to Claim Rate, Claim Severity also is impacted by the length of time that loans are in default and by our Loss Mitigation Activity. For claims under our primary mortgage insurance, the coverage percentage is applied to the claim amount, which consists of the unpaid loan principal, plus past due interest (for which our liability is contractually capped in accordance with the terms of our Master Policies) and certain expenses associated with the default, to determine our maximum liability. Therefore, Claim Severity generally increases the longer that a loan is in default. In addition, we estimate the impact that the amount that Claim Curtailments due to servicer noncompliance with our insurance policies and servicing guidelines have on the amount that we ultimately will have to pay with respect to claims. As part of our claims review process, we assess whether defaulted loans were serviced appropriately in accordance with our insurance policies and servicing guidelines. If a servicer failed to satisfy its servicing obligations, our insurance policies provide that we may curtail the claim payment for such default, and in some circumstances, cancel coverage or deny the claim.

We do not establish reserves for loans that are in default if we believe that we will not be liable for the payment of a claim with respect to that default unless a reserve for premium deficiency is required. We generally do not establish loss reserves for expected future claims on insured mortgages that are not in default. See “—Reserve for Premium Deficiency” below for an exception to this general principle.

#### ***IBNR and Other Reserves***

We also establish reserves for defaults that we estimate have been incurred but have not been reported to us on a timely basis by the servicer, as well as for previous Rescissions, Claim Denials and Claim Curtailments that we estimate will be reinstated and subsequently paid. We generally give the policyholder up to 30 days to challenge our decision to rescind coverage before we consider a policy to be rescinded and remove it from our defaulted inventory; therefore, we currently expect only a limited percentage of policies that were rescinded to be reinstated. We currently expect a significant percentage of claims that were denied to be resubmitted as a perfected claim and ultimately paid. Most often, a Claim Denial is the result of a servicer’s inability to provide the loan origination file or other servicing documents for review. Under the terms of our Master Policies with our lending customers, our policyholders have up to one year after the acquisition of borrower’s title to provide to us the necessary documents to perfect a claim. All estimates are periodically reviewed and adjustments are made as they become necessary.

The impact to our reserve due to estimated future Loss Mitigation Activities incorporates our expectations regarding the number of policies that we expect to be reinstated as a result of our claims rebuttal process. Rescissions, Claim Denials and Claim Curtailments may occur for various reasons, including, without limitation, underwriting negligence, fraudulent applications and appraisals, breach of representations and warranties and inadequate documentation, primarily related to our Legacy Portfolio. The level of Rescissions, Claim Denials and Claim Curtailments has been declining in recent periods as our defaulted Legacy Portfolio continues to decline, and we expect this trend to continue.

Unless a liability associated with such activities or discussions becomes probable and can be reasonably estimated, we consider our claim payments and our Rescissions, Claim Denials and Claim Curtailments to be resolved for financial reporting purposes. Under the accounting standard regarding contingencies, an estimated loss is accrued only if we determine that the loss is probable and can be reasonably estimated. For populations of disputed Rescissions, Claim Denials and Claim Curtailments where we determine that a settlement is probable and that a loss can be reasonably estimated, we reflect our best estimate of the expected loss related to the populations under discussion in our financial statements, primarily as a component of our IBNR reserve. While our reserves include our best estimate of such losses, the outcome of the discussions or potential legal proceedings that could ensue is uncertain, and it is reasonably possible that a loss exists in excess of the amount accrued.

Included in our loss reserves is an estimate related to a potential additional payment to Freddie Mac under the Freddie Mac Agreement, which is dependent upon the Loss Mitigation Activity on the population of loans subject to that agreement. Our reserve related to this potential additional payment is based on the estimated Rescissions, Claim Denials, Claim Curtailments and cancellations for this population of loans, determined using assumptions that are consistent with those utilized to determine our overall loss reserves. During the third quarter of 2017, the scheduled final settlement date under the Freddie Mac Agreement occurred, although an immaterial amount remains outstanding due to Loss Mitigation Activity and pending claims activity already in process but not yet finalized. See Note 11 for additional information about the Freddie Mac Agreement.

Senior management regularly reviews the modeled frequency, Rescission, Claim Denial, Claim Curtailments and Claim Severity estimates, which are based on historical trends, as described above. If recent emerging or projected trends differ significantly from the historical trends used to develop the modeled estimates, management evaluates these trends and determines how they should be considered in its reserve estimates.

#### ***Reserve for Premium Deficiency***

Insurance enterprises are required to establish a PDR if the net present value of the expected future losses and expenses for a particular product line exceeds the net present value of expected future premiums and existing reserves for that product line. We reassess our expectations for premiums, losses and expenses for our mortgage insurance business at least quarterly and update our premium deficiency analyses accordingly. For our mortgage insurance business, we group our mortgage insurance products into two categories: first-lien and second-lien mortgage loans. As of December 31, 2017 and 2016, the combination of the net present value of our expected future premiums and existing reserves (net of reinsurance recoverables) significantly exceeded the net present value of our future expected losses and expenses associated with our first lien mortgage insurance portfolio. Our second-lien PDR is recorded as a component of other liabilities.

#### **Fair Value of Financial Instruments**

Our estimated fair value measurements are intended to reflect the assumptions market participants would use in pricing an asset or liability based on the best information available. Assumptions include the risks inherent in a particular valuation technique (such as a pricing model) and the risks inherent in the inputs to the model. Changes in economic conditions and capital market conditions, including but not limited to, credit spread changes, benchmark interest rate changes, market volatility and changes in the value of underlying collateral, could cause actual results to differ materially from our estimated fair value measurements. We define fair value as the current amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

In accordance with GAAP, we established a three-level valuation hierarchy for disclosure of fair value measurements based on the transparency of inputs to the valuation of an asset or liability as of the measurement date. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level I measurements) and the lowest priority to unobservable inputs (Level III measurements). The level in the fair value hierarchy within which the fair value measurement falls is determined based on the lowest level input that is significant to the measurement in its entirety. The three levels of the fair value hierarchy are defined below:

- Level I — Unadjusted quoted prices for identical assets or liabilities in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;
- Level II — Prices or valuations based on observable inputs other than quoted prices in active markets for identical assets and liabilities; and
- Level III — Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable. Level III inputs are used to measure fair value only to the extent that observable inputs are not available.

For markets in which inputs are not observable or are limited, we use significant judgment and assumptions that a typical market participant would use to evaluate the market price of an asset or liability. Given the level of judgment necessary, another market participant may derive a materially different estimate of fair value. These assets and liabilities are classified in Level III of our fair value hierarchy.

Available for sale securities, trading securities, and certain other assets are recorded at fair value as described in Note 5. All changes in fair value of trading securities and certain other assets are included in our consolidated statements of operations. All changes in the fair value of available for sale securities are recorded in accumulated other comprehensive income (loss).

#### **Insurance Premiums—Revenue Recognition**

Mortgage insurance premiums written on an annual or multi-year basis are initially recorded as unearned premiums and earned over time. Annual premiums are amortized on a monthly, straight-line basis. Multi-year premiums are amortized over the terms of the contracts in relation to the anticipated claim payment pattern based on historical industry experience. Premiums written on a monthly basis are earned over the period that coverage is provided. When we rescind insurance coverage on a loan, we refund all premiums received in connection with such coverage. Premium revenue is recognized net of our accrual for estimated premium refunds due to Rescissions or other factors. With respect to our reinsurance transactions, ceded premiums written are initially set up as prepaid reinsurance and are amortized in a manner consistent with the recognition of income on direct premiums.

#### **Deferred Policy Acquisition Costs**

Incremental, direct costs associated with the successful acquisition of mortgage insurance business, consisting of compensation and other policy issuance and underwriting expenses, are initially deferred and reported as deferred policy acquisition costs. Amortization of these costs for each underwriting year book of business is expensed in proportion to estimated gross profits over the estimated life of the policies. This includes accruing interest on the unamortized balance of deferred policy acquisition costs. Ceding commissions received under our reinsurance arrangements related to these costs are also deferred and accounted for using similar assumptions, including certain amounts received under our reinsurance transactions. See Notes 8 and 9 for additional details.

Estimates of expected gross profit, including the Persistency Rate and loss development assumptions for each underwriting year used as a basis for amortization, are evaluated quarterly and the total amortization recorded to date is adjusted by a charge or credit to our consolidated statements of operations if actual experience or other evidence suggests that previous estimates should be revised. Considerable judgment is used in evaluating these estimates and the assumptions on which they are based. The use of different assumptions may have a significant effect on the amortization of deferred policy acquisition costs.

#### **Revenue Recognition—Services Revenue**

Services revenue is recognized when pervasive evidence of an arrangement exists, the service has been performed, the fee is fixed and determinable and collection of the resulting receivable is reasonably assured.

The Services segment derives most of its revenue from professional service activities. A portion of these activities are provided under “time-and-materials” billing arrangements. Services revenue consisting of billed fees and pass-through expenses is recorded as work is performed and expenses are incurred. Services revenue also includes expenses billed to clients, which includes travel and other out-of-pocket expenses, and other reimbursable expenses.

The Services segment also derives revenue from REO management activities, and is generally paid a fixed fee or a percentage of the sale proceeds upon the sale of a property. Services revenue is recognized when the sale of a property closes and the client has confirmed receipt of the sale proceeds from a buyer. In certain instances, fees are received at the time that an asset is assigned to Radian for REO management. These fees are recorded as deferred revenue and are recognized on a straight-line basis over the average period of time required to sell an asset and complete the earnings process.

The Services segment also generates additional revenue utilizing a percentage-of-sales contract. Through the use of Services’ proprietary technology, property leads are sent to select clients. Services recognizes revenue for these transactions based on a percentage of the sale, upon the client’s successful closing on the property.

The Services segment also provides certain services under multiple element arrangements, including valuations, title reviews and tax lien reviews. Contracts for these services include provisions requiring the client to pay a per-unit price for services that have been performed if the client cancels the contract. Each service qualifies as a separate unit of accounting on a per-unit basis, and we recognize revenue as each individual service is performed.

We do not recognize revenue or expense related to amounts advanced by us and subsequently reimbursed by clients for maintenance or repairs of REO properties because we are not the primary obligor and we have minimal credit risk. We record an expense if an advance is made that is not in accordance with a client contract and the client is not obligated to reimburse us.

#### **Cost of Services**

Cost of services consists primarily of employee compensation and related payroll benefits, the cost of billable labor assigned to revenue-generating activities, as well as corresponding travel and related expenses incurred in providing such services to clients in our Services segment. Cost of services also includes costs paid to outside vendors, including real estate agents that provide valuation and related services, as well as data acquisition costs and other compensation-related expenses to maintain software application platforms that directly support our businesses. Cost of services does not include an allocation of overhead costs.

#### **Income Taxes**

We provide for income taxes in accordance with the provisions of the accounting standard regarding accounting for income taxes. As required under this standard, our deferred tax assets and deferred tax liabilities are recognized under the balance sheet method, which recognizes the future tax effect of temporary differences between the amounts recorded in our consolidated financial statements and the tax bases of these amounts. Deferred tax assets and deferred tax liabilities are measured using the enacted tax rates that are expected to apply to taxable income in the periods in which the deferred tax asset or deferred tax liability is expected to be realized or settled.

We are required to establish a valuation allowance against our deferred tax assets when it is more likely than not that all or some portion of our deferred tax assets will not be realized. At each balance sheet date, we assess our need for a valuation allowance. Our assessment is based on all available evidence, both positive and negative. This requires management to exercise judgment and make assumptions regarding whether our deferred tax assets will be realized in future periods.

Our provision for income taxes for interim financial periods is based on an estimate of our annual effective tax rate for the full year of 2017 and 2016. When estimating our full year 2017 and 2016 effective tax rates, we adjust our forecasted pre-tax income for gains and losses on our investments, changes in the accounting for uncertainty in income taxes, changes in our beginning of year valuation allowance, and other adjustments. The impact of these items is accounted for as Discrete Items at the applicable federal tax rate.

On December 22, 2017, the TCJA was enacted into law. We are required to recognize the accounting effects of the TCJA in the period of enactment, such as remeasuring our deferred tax assets and liabilities as well as reassessing the net realizability of our deferred tax assets and liabilities. In December 2017, the SEC staff issued SAB 118, which provides guidance on accounting for the tax effects of the TCJA for which the accounting is incomplete. To the extent that a company's accounting for certain income tax effects of the TCJA is incomplete but it is able to determine a reasonable estimate, it must record provisional estimates in the financial statements, during a measurement period not to extend beyond one year of the enactment date. Since the TCJA was passed late in the fourth quarter of 2017, and ongoing guidance and accounting interpretation is expected over the next 12 months, we have accounted for the tax effects of the TCJA on a provisional basis. Although our accounting for certain income tax effects is incomplete, we have determined reasonable estimates for those effects. Our reasonable estimates are included in our financial statements as of December 31, 2017 and we expect to complete our accounting during the one-year measurement period from the enactment date.

### **Foreign Currency Revaluation/Translation**

Assets and liabilities denominated in foreign currencies are revalued or translated at year-end exchange rates. Operating results are translated at average rates of exchange prevailing during the year. Unrealized gains and losses, net of deferred taxes, resulting from translation are included in accumulated other comprehensive income (loss) in stockholders' equity. Realized gains and losses resulting from transactions in foreign currency are recorded in our statements of operations.

### **Cash and Restricted Cash**

Included in our restricted cash balances as of December 31, 2017 were: (i) funds for a mortgage insurance reserve policy held in escrow for any future duties, rights and liabilities; (ii) funds held in trust for the benefit of certain policyholders; (iii) escrow funds held for servicer liabilities; and (iv) escrow funds held for title services obligations. Total cash and restricted cash shown in the consolidated statement of cash flows as of December 31, 2017 of \$96.2 million comprise cash and restricted cash of \$80.6 million and \$15.7 million, respectively, as shown on the consolidated balance sheet as of December 31, 2017. Total cash and restricted cash shown in the consolidated statement of cash flows as of December 31, 2016 of \$61.8 million comprise cash and restricted cash of \$52.1 million and \$9.7 million, respectively, as shown on the consolidated balance sheet as of December 31, 2016.

Within our consolidated statements of cash flows, we classify cash receipts and cash payments related to items measured at fair value according to their nature and purpose. Because our investment activity for trading securities relates to overall strategic initiatives and is not trading related, it is recorded as cash flows from investing activities.

### **Investments**

We group assets in our investment portfolio into one of three main categories: held to maturity, available for sale or trading securities. Fixed-maturity securities for which we have the positive intent and ability to hold to maturity, if any, are classified as held to maturity and are reported at amortized cost. Trading securities are securities that are purchased and held primarily for the purpose of selling them in the near term, and are reported at fair value, with unrealized gains and losses reported as a separate component of income. Investments in securities not classified as held to maturity or trading securities are classified as available for sale and are reported at fair value, with unrealized gains and losses (net of tax) reported as a separate component of stockholders' equity as accumulated other comprehensive income (loss). Short-term investments consist of money market instruments, certificates of deposit and highly liquid, interest-bearing instruments with an original maturity of three months or less at the time of purchase. Amortization of premium and accretion of discount are calculated principally using the interest method over the term of the investment. Realized gains and losses on investments are recognized using the specific identification method. See Notes 5 and 6 for further discussion on the fair value of investments.



We record an other-than-temporary impairment adjustment on a security with an unrealized loss if we intend to sell the impaired security, if it is more likely than not that we will be required to sell the impaired security prior to recovery of its amortized cost basis, or if the present value of cash flows we expect to collect is less than the amortized cost basis of the security. If a sale is likely, the security is classified as other-than-temporarily impaired and the full amount of the impairment is recognized as a loss in the statement of operations. Otherwise, losses on securities that are other-than-temporarily impaired are separated into: (i) the portion of loss that represents the credit loss and (ii) the portion that is due to other factors. The credit loss portion is recognized as a loss in the statement of operations, while the loss due to other factors is recognized in accumulated other comprehensive income (loss), net of taxes. A credit loss is determined to exist if the present value of discounted cash flows expected to be collected from the security is less than the cost basis of the security. The present value of discounted cash flows is determined using the original yield of the security. In evaluating whether a decline in value is other-than-temporary, we consider several factors in addition to the above, including, but not limited to, the following:

- the extent and the duration of the decline in value;
- the reasons for the decline in value (e.g., credit event, interest related or market fluctuations); and
- the financial position, access to capital and near term prospects of the issuer, including the current and future impact of any specific events.

### **Securities Lending Agreements**

Securities lending agreements, in which we loan certain securities in our investment portfolio to third parties for short periods of time in exchange for collateral consisting of cash and other securities, are treated as collateralized financing arrangements on our consolidated balance sheets. In all of our securities lending agreements, the securities that we transfer to Borrowers (loaned securities) may be transferred or loaned by the Borrowers; however, we maintain effective control over all loaned securities, including: (i) retaining ownership of the securities; (ii) receiving the related investment or other income; and (iii) having the right to request the return of the loaned securities at any time. We report such securities within other assets in our consolidated balance sheets. We receive cash or other securities as collateral for such loaned securities. Any cash collateral may be invested in liquid assets. Cash collateral, which is reinvested for our benefit by the intermediary in accordance with the investment guidelines contained in the securities lending and collateral agreements, is reflected in short-term investments, with an offsetting liability recognized in other liabilities for the obligation to return the cash collateral to the Borrower. Securities collateral we receive from Borrowers is held on deposit for the Borrower's benefit and we may not transfer or loan such securities collateral unless the Borrower is in default. Therefore, such securities collateral is not reflected in our consolidated financial statements given that the risks and rewards of ownership are not transferred to us from the Borrowers. See Note 6 for additional information.

Fees received and paid in connection with securities lending agreements are recorded in net investment income and interest expense, respectively, on the consolidated statements of operations.

### **Accounts and Notes Receivable**

Accounts and notes receivable primarily consist of accrued premiums receivable due from our mortgage insurance customers, amounts billed and due from our Services customers for services our Services segment has performed, and profit commission receivable, if any, related to our reinsurance transactions. See Note 8 for details. Accounts and notes receivable are carried at their estimated collectible amounts, net of any allowance for doubtful accounts, and are periodically evaluated for collectability based on past payment history and current economic conditions. Accounts and notes receivable exclude unbilled receivables totaling \$22.3 million, which represent receivables for services performed that are not yet billed. Unbilled receivables are presented in other assets.

### **Company-Owned Life Insurance ("COLI")**

We are the beneficiary of insurance policies on the lives of certain of our current and past officers and employees. We have recognized the amount that could be realized upon surrender of the insurance policies in other assets in our consolidated balance sheets. See Note 9 for additional information.



## Property and Equipment

Property and equipment is carried at cost, net of depreciation. For financial statement reporting purposes, computer hardware and software is generally depreciated over three or five years and furniture, fixtures and office equipment is depreciated over seven years. Leasehold improvements are depreciated over the lesser of the estimated useful life of the asset improved or the remaining term of the lease. See Note 9 for additional information.

## Goodwill and Other Intangible Assets, Net

Goodwill and other intangible assets were established primarily in connection with our acquisition of Clayton. Goodwill is an asset representing the estimated future economic benefits arising from the assets we have acquired that were not individually identified and separately recognized, and includes the value of discounted expected future cash flows of Clayton, Clayton's workforce, expected synergies with our other affiliates and other unidentifiable intangible assets. Goodwill is deemed to have an indefinite useful life and is subject to review for impairment annually, or more frequently, whenever circumstances indicate potential impairment at the reporting unit level. A reporting unit represents a business for which discrete financial information is available; more than one reporting unit may be aggregated into a single reporting unit if they have similar economic characteristics. Events that could result in an interim assessment of goodwill impairment and/or a potential impairment charge include, but are not limited to: (i) significant under-performance relative to historical or projected future operating results; (ii) significant changes in the strategy for the Services segment; (iii) significant negative industry or economic trends; and (iv) a decline in Radian's market capitalization below book value if such decline is attributable to the Services segment. Management regularly updates certain assumptions related to our projections, including the likelihood of achieving the assumed potential revenues from new initiatives and business strategies, and if these or other items have a significant negative impact on the reporting unit's projections we may perform additional analysis to determine whether an impairment charge is needed. Lower earnings over sustained periods also can lead to impairment of goodwill, which could result in a charge to earnings. The value of goodwill is primarily supported by revenue projections, which are mostly driven by projected transaction volume and margins.

In performing the quantitative analysis for our goodwill impairment test as of June 30, 2017, we elected to early adopt the update to the accounting standard regarding goodwill and other intangibles, as discussed in "Recent Accounting Pronouncements—*Accounting Standards Adopted During 2017*," below. This update simplifies the subsequent measurement of goodwill by eliminating step two of the goodwill impairment test. Under the new guidance, if indicators for impairment are present, we perform a quantitative analysis to evaluate our long-lived assets for potential impairment, and then determine the amount of the goodwill impairment by comparing a reporting unit's fair value to its carrying amount. After adjusting the carrying value for any impairment of other intangibles or long-lived assets, an impairment charge is recognized for any excess of the reporting unit's carrying amount over the reporting unit's estimated fair value, up to the full amount of the goodwill allocated to the reporting unit.

Intangible assets, other than goodwill, primarily consist of customer relationships, technology, trade name and trademarks, client backlog and non-competition agreements. Customer relationships represent the value of the specifically acquired customer relationships and are valued using the excess earnings approach using estimated client revenues, attrition rates, implied royalty rates and discount rates. The excess earnings approach estimates the present value of expected earnings in excess of a traditional return on business assets. Technology represents proprietary software used for loan review, underwriting and due diligence, managing the REO disposition process, performing surveillance of mortgage loan servicers, real estate valuations and client workflow solutions. Trade name and trademarks reflect the value inherent in the recognition of the "Clayton" name and its reputation. For purposes of our intangible assets, we use the term client backlog to refer to the estimated present value of fees to be earned for services performed on loans currently under surveillance or REO assets under management. The value of a non-competition agreement is an appraisal of potential lost revenues that would arise from an individual leaving to work for a competitor or initiating a competing enterprise. For financial reporting purposes, intangible assets with finite lives are amortized over their applicable estimated useful lives in a manner that approximates the pattern of expected economic benefit from each intangible asset.

The calculation of the estimated fair value of goodwill and other intangibles is performed primarily using an income approach and requires the use of significant estimates and assumptions that are highly subjective in nature, such as attrition rates, discount rates, future expected cash flows and market conditions. The most significant assumptions relate to the valuation of customer relationships. Our estimates are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable.

For more information on our accounting for goodwill and other intangibles, including our impairment analysis policy, see Note 7.

### **Accounting for Share-Based Compensation**

The stock-based compensation cost related to share-based liability awards is based on the fair value as of the measurement date. The compensation cost for equity instruments is measured based on the grant-date fair value at the date of issuance. For share-based awards with performance conditions related to our own operations, the expense recognized is dependent on the probability of the performance measure being achieved. Compensation cost is generally recognized over the periods that an employee provides service in exchange for the award. See Note 15 for further information.

### **Purchases of Convertible Debt Prior to Maturity**

We account for the purchases of our outstanding convertible debt as induced conversions of convertible debt in accordance with the accounting standard regarding derecognition of debt with conversion and other options, and the accounting standard regarding debt modifications and extinguishments. The accounting standards require the recognition through earnings of an inducement charge equal to the fair value of the consideration delivered in excess of the consideration issuable under the original conversion terms. The remaining consideration delivered and transaction costs incurred are required to be allocated between the extinguishment of the liability component and the reacquisition of the equity component. Therefore, we recognize a loss on induced conversion and debt extinguishment equal to the sum of: (i) the inducement charge; (ii) the difference between the fair value and the carrying value of the liability component of the purchased debt; (iii) transaction costs allocated to the debt component; and (iv) unamortized debt issuance costs related to the purchased debt.

### **Reinsurance**

In accordance with the terms of the 2016 Single Premium QSR Transaction, rather than making a cash payment or transferring investments for ceded premiums written, Radian Guaranty holds the related amounts to collateralize the reinsurers' obligations and has established a corresponding funds withheld liability. Any loss recoveries and any potential profit commission to Radian Guaranty will be realized from this account. The reinsurers' share of earned premiums is paid from this account on a quarterly basis. This liability also includes an interest credit on funds withheld, which is recorded as ceded premiums at a rate specified in the agreement and, depending on experience under the contract, may be paid to either Radian Guaranty or the reinsurers. Ceded premiums written are recorded on the balance sheet as prepaid reinsurance premiums and amortized to ceded premiums earned in a manner consistent with the recognition of income on direct premiums. The ceding commission received for premiums ceded pursuant to this transaction is attributable to other underwriting costs. The unamortized portion of the ceding commission is reflected in other liabilities. See Note 8 for further discussion of our reinsurance transactions.

### **Accelerated Share Repurchase**

In 2015, we had an accelerated share repurchase program that consisted of the combination of the purchase of Radian Group common stock from an investment bank and a forward contract with that investment bank indexed to Radian Group common stock. We accounted for the accelerated share repurchase program in accordance with the provisions of the accounting standards regarding derivatives and hedging for contracts indexed to an entity's own stock, and the accounting standard regarding equity. The up-front payment to the investment bank as part of the accelerated share repurchase program was accounted for as a reduction to stockholders' equity in our consolidated balance sheets in the second quarter of 2015, the period in which the payment was made. The shares of Radian Group common stock received were retired, resulting in a decrease in shares issued and outstanding and a corresponding increase in unissued shares in the periods delivered. We reflect the accelerated share repurchase program as a repurchase of common stock in the periods delivered for purposes of calculating earnings per share and as forward contracts indexed to the Company's own common stock. The accelerated share repurchase program met all of the applicable criteria for equity classification, and therefore, was not accounted for as a derivative instrument.

## Restructuring and Other Exit Costs

Restructuring and other exit costs include items such as asset impairment charges (including loss from the sale of a business line), employee severance and benefit costs, facility and lease termination costs, contract terminations and other costs of restructuring or exiting activities. The timing of the future expense and associated cash payments for restructuring and other exit costs is dependent on the type of exit cost and is expected to be completed within the next 12 months. We review assets for impairment in accordance with the accounting guidance for long-lived assets. The loss on sale of a business line is calculated by the excess of its carry amount over the sale price. Generally, our employee severance and benefit costs are part of the Company's ongoing benefit arrangement and are recognized when probable and estimable. A liability for facility and lease contract termination costs is recognized at the date we cease the use of rights conveyed by the contract and is measured at its fair value, which is determined based on the remaining contractual lease rentals reduced by estimated sublease rentals. Other contract termination and exit costs include future costs that will be incurred, which are recognized in total when they no longer will benefit the Company. The liabilities for restructuring and other exit costs are recorded in other liabilities.

## Recent Accounting Pronouncements

### *Accounting Standards Adopted During 2017*

In March 2016, the FASB issued an update to the accounting standards for share-based payment transactions, including: (i) accounting for income taxes; (ii) classification of excess tax benefits on the statement of cash flows; (iii) forfeitures; (iv) minimum statutory tax withholding requirements; (v) classification of employee taxes paid on the statement of cash flows when an employer withholds shares for tax withholding purposes; (vi) the practical expedient for estimating the expected term; and (vii) intrinsic value. Among other things, the update requires: (i) all excess tax benefits and tax deficiencies to be recognized as income tax expense or benefit in the income statement as they occur; (ii) recognition of excess tax benefits, regardless of whether the benefits reduce taxes payable in the current period; and (iii) excess tax benefits to be classified along with other cash flows as an operating activity, rather than separated from other income tax cash flows as a financing activity. This update is effective for public companies for fiscal years beginning after December 15, 2016. Our adoption of this update, effective January 1, 2017, had an immaterial impact on our financial statements at implementation. As a result of implementing this new standard, however, we expect the potential for limited increased volatility in our effective tax rate and net earnings, and possible additional dilution in earnings per share calculations.

In January 2017, the FASB issued an update to the accounting standard regarding goodwill and other intangibles. This update simplifies the subsequent measurement of goodwill by eliminating step two of the goodwill impairment test. Instead, an entity should perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for any excess of the reporting unit's carrying amount over the reporting unit's estimated fair value, after adjusting the carrying value for any impairment of other intangibles or long-lived assets. The provisions of this update are effective for interim and annual goodwill impairment tests in fiscal years beginning after December 15, 2019, with early adoption permitted for interim or annual goodwill impairment tests performed after January 1, 2017. We elected to early adopt this update to perform the quantitative analysis for our goodwill impairment test as of June 30, 2017. See "—Goodwill and Other Intangible Assets, Net" above and Note 7 for additional information.

### *Accounting Standards Not Yet Adopted*

In May 2014, the FASB issued an update to the accounting standard regarding revenue recognition. In accordance with the new standard, recognition of revenue occurs when a customer obtains control of promised goods or services, in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In addition, the new standard requires that reporting companies disclose the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. This update is not expected to change revenue recognition principles related to our investments and insurance products, which together represent the majority of our total revenues. This update is primarily applicable to revenues from our Services segment. In July 2015, the FASB delayed the effective date for this updated standard for public companies to interim and annual periods beginning after December 15, 2017, and subsequently issued various clarifying updates. Early adoption is permitted. This standard permits the use of either the full retrospective or the modified retrospective transition method. We currently anticipate using the modified retrospective method of adoption, with the cumulative effect of initially applying the guidance recognized at the date of adoption. We have reviewed current accounting policies and key contracts that are representative of our various products and services within the Services segment and are in the process of comparing our historical accounting policies and practices to the requirements of the new guidance. We have identified immaterial differences resulting from applying the new requirements to our contracts which mainly affect timing of revenue recognition. Given that most of our contracts are short-term in nature, we do not expect the impact to be material to our financial statements. We have also identified appropriate changes to our business processes, systems and controls to support recognition and disclosure under the new guidance.

In January 2016, the FASB issued an update that makes certain changes to the standard for the accounting of financial instruments. Among other things, the update requires: (i) equity investments to be measured at fair value with changes in fair value recognized in net income (loss); (ii) the use of the exit price notion when measuring the fair value of financial instruments for disclosure purposes; (iii) separate presentation of financial assets and financial liabilities by measurement category and form of financial asset; and (iv) separate presentation in other comprehensive income of the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk (also referred to as “own credit”) when the organization has elected to measure the liability at fair value in accordance with the fair value option for financial instruments. The update also eliminates the requirement to disclose the methods and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the balance sheet. This update is effective for public companies for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is not permitted, with the exception of the “own credit” provision. Our adoption of this update effective January 1, 2018 had an immaterial impact to our financial statements and expected disclosures. As a result of implementing this standard, we expect the potential for increased volatility in earnings.

In February 2016, the FASB issued an update that replaces the existing accounting and disclosure requirements for leases of property, plant and equipment. The update requires lessees to recognize, as of the lease commencement date, assets and liabilities for all leases with lease terms of more than 12 months, which is a change from the current GAAP requirement to recognize only capital leases on the balance sheet. Pursuant to the new standard, the liability initially recognized for the lease obligation is equal to the present value of the lease payments not yet made, discounted over the lease term at the implicit interest rate of the lease, if available, or otherwise at the lessee’s incremental borrowing rate. The lessee is also required to recognize an asset for its right to use the underlying asset for the lease term, based on the liability subject to certain adjustments, such as for initial direct costs. Leases are required to be classified as either operating or finance, with expense on operating leases recorded as a single lease cost on a straight-line basis. For finance leases, interest expense on the lease liability is required to be recognized separately from the straight-line amortization of the right-of-use asset. Quantitative disclosures are required for certain items, including the cost of leases, the weighted-average remaining lease term, the weighted-average discount rate and a maturity analysis of lease liabilities. Additional qualitative disclosures are also required regarding the nature of the leases, such as basis, terms and conditions of: (i) variable interest payments; (ii) extension and termination options; and (iii) residual value guarantees. This update is effective for public companies for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted. The new standard must be adopted by applying the new guidance as of the beginning of the earliest comparative period presented, using a modified retrospective transition approach with certain optional practical expedients. We are currently evaluating the impact to our financial statements and future disclosures as a result of this update. See Note 13 for additional information.

In June 2016, the FASB issued an update to the accounting standard regarding the measurement of credit losses on financial instruments. This update requires that financial assets measured at their amortized cost basis be presented at the net amount expected to be collected. Credit losses relating to available-for-sale debt securities are to be recorded through an allowance for credit losses, rather than a write-down of the asset, with the amount of the allowance limited to the amount by which fair value is less than amortized cost. This update is effective for public companies for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. Early adoption is permitted for the fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. We are currently evaluating the impact to our financial statements and future disclosures as a result of this update.

In October 2016, the FASB issued an update to the accounting standard regarding the accounting for income taxes. This update requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. This update will be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. This update is effective for public companies for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted, including adoption in the first interim period of the adoption year. We have concluded there is currently no impact to our financial statements and future disclosures as a result of this update.

In March 2017, the FASB issued an update to the accounting standard regarding receivables. The new standard requires certain premiums on purchased callable debt securities to be amortized to the earliest call date. The amortization period for callable debt securities purchased at a discount will not be impacted. The provisions of this update are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted, including adoption in an interim period. We are currently evaluating the impact to our financial statements and future disclosures as a result of this update.

In February 2018, the FASB issued an update to the accounting standard regarding income statement reporting of comprehensive income and reclassification of certain tax effects from accumulated other comprehensive income. The amendments in this update allow a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the TCJA. The provisions of this update are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted, including adoption in an interim period, for reporting periods for which financial statements have not been available for issuance. We are currently evaluating the impact to our financial statements and future disclosures as a result of this update.

### **3. Net Income Per Share**

Basic net income per share is computed by dividing net income by the weighted-average number of common shares outstanding, while diluted net income per share is computed by dividing net income attributable to common stockholders by the sum of the weighted-average number of common shares outstanding and the weighted-average number of dilutive potential common shares. Dilutive potential common shares relate to our share-based compensation arrangements and our outstanding convertible senior notes. For all calculations, the determination of whether potential common shares are dilutive or anti-dilutive is based on net income from continuing operations.

The calculation of the basic and diluted net income per share was as follows:

	Year Ended December 31,		
	2017	2016	2015
<b>(In thousands, except per-share amounts)</b>			
Net income from continuing operations:			
Net income from continuing operations—basic . . . . .	\$ 121,088	\$ 308,253	\$ 281,539
Adjustment for dilutive Convertible Senior Notes due 2019, net of tax (1) . . . . .	(215)	5,816	14,758
Net income from continuing operations—diluted . . . . .	\$ 120,873	\$ 314,069	\$ 296,297
Net income:			
Net income from continuing operations—basic . . . . .	\$ 121,088	\$ 308,253	\$ 281,539
Income from discontinued operations, net of tax . . . . .	—	—	5,385
Net income—basic . . . . .	121,088	308,253	286,924
Adjustment for dilutive Convertible Senior Notes due 2019, net of tax (1) . . . . .	(215)	5,816	14,758
Net income—diluted . . . . .	\$ 120,873	\$ 314,069	\$ 301,682
Average common shares outstanding—basic . . . . .	215,321	211,789	199,910
Dilutive effect of Convertible Senior Notes due 2017 (2) . . . . .	323	207	6,293
Dilutive effect of Convertible Senior Notes due 2019 . . . . .	457	14,263	37,736
Dilutive effect of stock-based compensation arrangements (2) . . . . .	4,305	2,999	2,393
Adjusted average common shares outstanding—diluted . . . . .	220,406	229,258	246,332
Net income per share:			
Basic:			
Net income from continuing operations . . . . .	\$ 0.56	\$ 1.46	\$ 1.41
Income from discontinued operations, net of tax . . . . .	—	—	0.03
Net income . . . . .	\$ 0.56	\$ 1.46	\$ 1.44
Diluted:			
Net income from continuing operations . . . . .	\$ 0.55	\$ 1.37	\$ 1.20
Income from discontinued operations, net of tax . . . . .	—	—	0.02
Net income . . . . .	\$ 0.55	\$ 1.37	\$ 1.22

- (1) As applicable, includes coupon interest, amortization of discount and fees, and other changes in income or loss that would result from the assumed conversion. Included in the year ended December 31, 2017 is a benefit related to our adjustment of estimated accrued expense to actual amounts, resulting from the January 2017 settlement of our obligations on the remaining Convertible Senior Notes due 2019.
- (2) The following number of shares of our common stock equivalents issued under our share-based compensation arrangements and convertible debt, if any, were not included in the calculation of diluted net income per share because they were anti-dilutive:

<b>(in thousands)</b>	Year Ended December 31,		
	2017	2016	2015
Shares of common stock equivalents . . . . .	353	1,042	728



#### 4. Segment Reporting

We have two strategic business units that we manage separately—Mortgage Insurance and Services. Adjusted pretax operating income (loss) for each segment represents segment results on a standalone basis; therefore, inter-segment eliminations and reclassifications required for consolidated GAAP presentation have not been reflected. See Note 18 for information related to discontinued operations.

Management responsibilities for all contract underwriting activities are performed by the Services segment. We include underwriting-related expenses for mortgage insurance, based on a pro-rata volume of mortgage applications excluding third-party contract underwriting services, in our Mortgage Insurance segment's other operating expenses before corporate allocations. We include underwriting-related expenses for third-party contract underwriting services, based on a pro-rata volume of mortgage applications, in our Services segment's cost of services and other operating expenses before corporate allocations, as applicable.

We allocate to our Mortgage Insurance segment: (i) corporate expenses based on an allocated percentage of time spent on the Mortgage Insurance segment; (ii) all interest expense except for interest expense related to the original issued amount of \$300 million from the Senior Notes due 2019 that were used to fund our purchase of Clayton; and (iii) all corporate cash and investments.

We allocate to our Services segment: (i) corporate expenses based on an allocated percentage of time spent on the Services segment and (ii) as noted above, allocated interest expense based on the original amount of debt issued to fund our acquisition of Clayton. No material corporate cash or investments are allocated to the Services segment. Inter-segment activities are recorded at market rates for segment reporting and eliminated in consolidation.

#### Adjusted Pretax Operating Income (Loss)

Our senior management, including our Chief Executive Officer (Radian's chief operating decision maker), uses adjusted pretax operating income (loss) as our primary measure to evaluate the fundamental financial performance of each of Radian's business segments and to allocate resources to the segments. Adjusted pretax operating income (loss) is defined as pretax income (loss) from continuing operations excluding the effects of net gains (losses) on investments and other financial instruments, loss on induced conversion and debt extinguishment, acquisition-related expenses, amortization or impairment of goodwill and other intangible assets, and net impairment losses recognized in earnings and losses from the sale of lines of business.

Although adjusted pretax operating income excludes certain items that have occurred in the past and are expected to occur in the future, the excluded items represent those that are: (i) not viewed as part of the operating performance of our primary activities or (ii) not expected to result in an economic impact equal to the amount reflected in pretax income. These adjustments, along with the reasons for their treatment, are described below.

- (1) *Net gains (losses) on investments and other financial instruments.* The recognition of realized investment gains or losses can vary significantly across periods as the activity is highly discretionary based on the timing of individual securities sales due to such factors as market opportunities, our tax and capital profile and overall market cycles. Unrealized investment gains and losses arise primarily from changes in the market value of our investments that are classified as trading securities. These valuation adjustments may not necessarily result in realized economic gains or losses. Trends in the profitability of our fundamental operating activities can be more clearly identified without the fluctuations of these realized and unrealized gains or losses. We do not view them to be indicative of our fundamental operating activities. Therefore, these items are excluded from our calculation of adjusted pretax operating income (loss).
- (2) *Loss on induced conversion and debt extinguishment.* Gains or losses on early extinguishment of debt and losses incurred to purchase our convertible debt prior to maturity are discretionary activities that are undertaken in order to take advantage of market opportunities to strengthen our financial and capital positions; therefore, we do not view these activities as part of our operating performance. Such transactions do not reflect expected future operations and do not provide meaningful insight regarding our current or past operating trends. Therefore, these items are excluded from our calculation of adjusted pretax operating income (loss).

- (3) *Acquisition-related expenses.* Acquisition-related expenses represent the costs incurred to effect an acquisition of a business (i.e., a business combination). Because we pursue acquisitions on a strategic and selective basis and not in the ordinary course of our business, we do not view acquisition-related expenses as a consequence of a primary business activity. Therefore, we do not consider these expenses to be part of our operating performance and they are excluded from our calculation of adjusted pretax operating income (loss).
- (4) *Amortization or impairment of goodwill and other intangible assets.* Amortization of intangible assets represents the periodic expense required to amortize the cost of intangible assets over their estimated useful lives. Intangible assets with an indefinite useful life are also periodically reviewed for potential impairment, and impairment adjustments are made whenever appropriate. These charges are not viewed as part of the operating performance of our primary activities and therefore are excluded from our calculation of adjusted pretax operating income (loss).
- (5) *Net impairment losses recognized in earnings and losses from the sale of lines of business.* The recognition of net impairment losses on investments and the impairment of other long-lived assets does not result in a cash payment and can vary significantly in both amount and frequency, depending on market credit cycles and other factors. Losses from the sale of lines of business are highly discretionary as a result of strategic restructuring decisions, and generally do not occur in the normal course of our business. We do not view these losses to be indicative of our fundamental operating activities. Therefore, whenever these losses occur, we exclude them from our calculation of adjusted pretax operating income (loss).

Summarized operating results for our segments as of and for the years ended, as applicable, were as follows:

<b>(In thousands)</b>	<b>December 31, 2017</b>		
	<b>Mortgage Insurance</b>	<b>Services</b>	<b>Total</b>
Net premiums written—insurance (1) (2) . . . . .	\$ 818,417	\$ —	\$ 818,417
(Increase) decrease in unearned premiums (2) . . . . .	114,356	—	114,356
Net premiums earned—insurance . . . . .	932,773	—	932,773
Services revenue . . . . .	—	161,833	161,833
Net investment income . . . . .	127,248	—	127,248
Other income . . . . .	2,886	—	2,886
Total (3) (4) . . . . .	<u>1,062,907</u>	<u>161,833</u>	<u>1,224,740</u>
Provision for losses . . . . .	136,183	—	136,183
Policy acquisition costs . . . . .	24,277	—	24,277
Cost of services . . . . .	—	105,812	105,812
Other operating expenses before corporate allocations . . . . .	150,975	50,969	201,944
Restructuring and other exit costs (5) . . . . .	—	6,828	6,828
Total (4) . . . . .	<u>311,435</u>	<u>163,609</u>	<u>475,044</u>
Adjusted pretax operating income (loss) before corporate allocations . . . . .	751,472	(1,776)	749,696
Allocation of corporate operating expenses . . . . .	55,441	14,319	69,760
Allocation of interest expense . . . . .	45,016	17,745	62,761
Adjusted pretax operating income (loss) . . . . .	<u>\$ 651,015</u>	<u>\$ (33,840)</u>	<u>\$ 617,175</u>
Total assets . . . . .	\$ 5,733,918	\$ 166,963 (6)	\$ 5,900,881
NIW (in millions) . . . . .	\$ 53,905		

- (1) Net of ceded premiums written under the QSR Transactions and the 2016 Single Premium QSR Transaction. See Note 8 for additional information.
- (2) Effective December 31, 2017, we amended the 2016 Single Premium QSR Transaction to increase the amount of ceded risk for performing loans under the agreement from 35% to 65% for the 2015 through 2017 vintages, resulting in a reduction of \$145.7 million in net premiums written.
- (3) Excludes net gains on investments and other financial instruments of \$3.6 million, not included in adjusted pretax operating income.
- (4) Includes inter-segment revenues and expenses as follows:

<b>(In thousands)</b>	<b>December 31, 2017</b>	
	<b>Mortgage Insurance</b>	<b>Services</b>
Inter-segment revenues included in Services segment . . . . .	\$ —	\$ 6,730
Inter-segment expenses included in Mortgage Insurance segment . . . . .	6,730	—

- (5) Primarily includes employee severance and related benefit costs. Does not include impairment of long-lived assets, which is not a component of adjusted pretax operating income.
- (6) The decrease in total assets for the Services segment at December 31, 2017, as compared to December 31, 2016, is primarily due to the impairment of goodwill and other intangible assets. See Note 7 for further details.

<u>(In thousands)</u>	December 31, 2016		
	<u>Mortgage Insurance</u>	<u>Services</u>	<u>Total</u>
Net premiums written—insurance (1) . . . . .	\$ 733,834	\$ —	\$ 733,834
(Increase) decrease in unearned premiums . . . . .	187,935	—	187,935
Net premiums earned—insurance . . . . .	921,769	—	921,769
Services revenue . . . . .	—	177,249	177,249
Net investment income . . . . .	113,466	—	113,466
Other income . . . . .	3,572	—	3,572
Total (2) (3) . . . . .	<u>1,038,807</u>	<u>177,249</u>	<u>1,216,056</u>
Provision for losses . . . . .	204,175	—	204,175
Policy acquisition costs . . . . .	23,480	—	23,480
Cost of services . . . . .	—	115,369	115,369
Other operating expenses before corporate allocations . . . . .	140,624	55,815	196,439
Total (3) . . . . .	<u>368,279</u>	<u>171,184</u>	<u>539,463</u>
Adjusted pretax operating income (loss) before corporate allocations . . . . .	670,528	6,065	676,593
Allocation of corporate operating expenses . . . . .	45,178	8,533	53,711
Allocation of interest expense . . . . .	63,439	17,693	81,132
Adjusted pretax operating income (loss) . . . . .	<u>\$ 561,911</u>	<u>\$ (20,161)</u>	<u>\$ 541,750</u>
Total assets . . . . .	\$ 5,506,338	\$ 356,836	\$ 5,863,174
NIW (in millions) . . . . .	\$ 50,530		

- (1) Net of ceded premiums written under the QSR Transactions and the 2016 Single Premium QSR Transaction. See Note 8 for additional information.
- (2) Excludes net gains on investments and other financial instruments of \$30.8 million, not included in adjusted pretax operating income.
- (3) Includes inter-segment revenues and expenses as follows:

<u>(In thousands)</u>	December 31, 2016	
	<u>Mortgage Insurance</u>	<u>Services</u>
Inter-segment revenues included in Services segment . . . . .	\$ —	\$ 8,355
Inter-segment expenses included in Mortgage Insurance segment . . . . .	8,355	—

	December 31, 2015		
	Mortgage Insurance	Services	Total
<b>(In thousands)</b>			
Net premiums written—insurance (1) . . . . .	\$ 968,505	\$ —	\$ 968,505
(Increase) decrease in unearned premiums . . . . .	(52,597)	—	(52,597)
Net premiums earned—insurance . . . . .	915,908	—	915,908
Services revenue . . . . .	—	163,140	163,140
Net investment income . . . . .	81,537	—	81,537
Other income . . . . .	2,899	—	2,899
Total (2) (3) . . . . .	1,000,344	163,140	1,163,484
Provision for losses . . . . .	198,433	—	198,433
Policy acquisition costs . . . . .	22,424	—	22,424
Cost of services . . . . .	—	97,256	97,256
Other operating expenses before corporate allocations. . . . .	148,619	43,515	192,134
Total (3) . . . . .	369,476	140,771	510,247
Adjusted pretax operating income (loss) before corporate allocations . . . . .	630,868	22,369	653,237
Allocation of corporate operating expenses . . . . .	46,418	4,823	51,241
Allocation of interest expense . . . . .	73,402	17,700	91,102
Adjusted pretax operating income (loss) . . . . .	\$ 511,048	\$ (154)	\$ 510,894
Total assets. . . . .	5,290,422	351,678	5,642,100
NIW (in millions) . . . . .	\$ 41,411		

- (1) Net of ceded premiums written under the QSR Transactions. See Note 8 for additional information.  
(2) Excludes net gains on investments and other financial instruments of \$35.7 million, not included in adjusted pretax operating income.  
(3) Includes inter-segment revenues and expenses as follows:

	December 31, 2015	
	Mortgage Insurance	Services
<b>(In thousands)</b>		
Inter-segment revenues included in Services segment . . . . .	\$ —	\$ 5,924
Inter-segment expenses included in Mortgage Insurance segment . . . . .	5,924	—

The reconciliation of adjusted pretax operating income (loss) to consolidated pretax income from continuing operations is as follows:

(In thousands)	December 31,		
	2017	2016	2015
Adjusted pretax operating income (loss):			
Mortgage insurance (1) . . . . .	\$ 651,015	\$ 561,911	\$ 511,048
Services (1) . . . . .	(33,840)	(20,161)	(154)
Total adjusted pretax operating income . . . . .	\$ 617,175	\$ 541,750	\$ 510,894
Net gains (losses) on investments and other financial instruments . . . . .	3,621	30,751	35,693
Loss on induced conversion and debt extinguishment . . . . .	(51,469)	(75,075)	(94,207)
Acquisition-related expenses (2) . . . . .	(105)	(519)	(1,565)
Impairment of goodwill . . . . .	(184,374)	—	—
Amortization and impairment of other intangible assets . . . . .	(27,671)	(13,221)	(12,986)
Impairment of other long-lived assets (3) . . . . .	(10,440)	—	—
Consolidated pretax income from continuing operations . . . . .	\$ 346,737	\$ 483,686	\$ 437,829

- (1) Includes inter-segment expenses and revenues as listed in the notes to the preceding tables.
- (2) Acquisition-related expenses represent expenses incurred to effect the acquisition of a business, net of adjustments to accruals previously recorded for acquisition expenses.
- (3) Included within restructuring and other exit costs. See Note 2.

On a consolidated basis, “adjusted pretax operating income” is a measure not determined in accordance with GAAP. Total adjusted pretax operating income is not a measure of total profitability, and therefore should not be considered in isolation or viewed as a substitute for GAAP pretax income. Our definition of adjusted pretax operating income may not be comparable to similarly-named measures reported by other companies.

**Concentration of Risk**

As of December 31, 2017, California is the only state that accounted for more than 10% of our mortgage insurance business measured by primary RIF. California accounted for 12.4% of our Mortgage Insurance segment’s primary RIF at both December 31, 2017 and December 31, 2016. California accounted for 14.1% of our Mortgage Insurance segment’s direct primary NIW for the year ended December 31, 2017, compared to 14.8% and 15.2% for the years ended December 31, 2016 and 2015, respectively.

The largest single mortgage insurance customer (including branches and affiliates), measured by primary NIW, accounted for 6.8% of NIW during 2017, compared to 5.7% and 4.6% from the largest single customer in 2016 and 2015, respectively. Earned premiums from one mortgage insurance customer represented 15%, 15% and 16% of our consolidated revenues (excluding net gains (losses) on investments and other financial instruments) in 2017, 2016 and 2015, respectively.

Net premiums earned attributable to foreign countries and long-lived assets located in foreign countries were immaterial for the periods presented.



## 5. Fair Value of Financial Instruments

The following is a list of those assets that are measured at fair value by hierarchy level as of December 31, 2017:

<b>(In thousands)</b>	<b>December 31, 2017</b>		
	<b>Level I</b>	<b>Level II</b>	<b>Total</b>
<b>Assets at Fair Value</b>			
Investment Portfolio:			
U.S. government and agency securities . . . . .	\$ 124,969	\$ 8,023	\$ 132,992
State and municipal obligations . . . . .	—	386,111	386,111
Money market instruments . . . . .	213,357	—	213,357
Corporate bonds and notes . . . . .	—	2,304,017	2,304,017
RMBS . . . . .	—	216,749	216,749
CMBS . . . . .	—	503,955	503,955
Other ABS . . . . .	—	676,158	676,158
Foreign government and agency securities . . . . .	—	36,448	36,448
Equity securities . . . . .	175,205	860	176,065
Other investments (1) . . . . .	—	25,720	25,720
Total Investments at Fair Value (2) . . . . .	<u>513,531</u>	<u>4,158,041</u>	<u>4,671,572</u> (3)
Total Assets at Fair Value . . . . .	<u>\$ 513,531</u>	<u>\$ 4,158,041</u>	<u>\$ 4,671,572</u> (3)

- (1) Comprising short-term certificates of deposit and commercial paper.
- (2) Does not include certain other invested assets (\$0.3 million), primarily invested in limited partnerships, accounted for as cost-method investments and not measured at fair value. Includes cash collateral held under securities lending agreements (\$19.4 million) reinvested in money market instruments.
- (3) Includes \$28.0 million of securities loaned to third-party Borrowers under securities lending agreements, classified as other assets in our consolidated balance sheets. See Note 6 for more information.

At December 31, 2017, there were no Level III assets measured at fair value, and no Level III liabilities. There were no investment transfers between Level I, Level II or Level III for the year ended December 31, 2017.

The following is a list of those assets that are measured at fair value by hierarchy level as of December 31, 2016:

<u>(In thousands)</u>	December 31, 2016			
	Level I	Level II	Level III	Total
<b>Assets at Fair Value</b>				
Investment Portfolio:				
U.S. government and agency securities . . . . .	\$ 237,479	\$ —	\$ —	\$ 237,479
State and municipal obligations . . . . .	—	358,536	—	358,536
Money market instruments . . . . .	431,472	—	—	431,472
Corporate bonds and notes . . . . .	—	2,024,205	—	2,024,205
RMBS . . . . .	—	388,842	—	388,842
CMBS . . . . .	—	507,273	—	507,273
Other ABS . . . . .	—	450,128	—	450,128
Foreign government and agency securities . . . . .	—	32,807	—	32,807
Equity securities . . . . .	—	830	500	1,330
Other investments (1) . . . . .	—	28,663	500	29,163
Total Investments at Fair Value (2) . . . . .	<u>668,951</u>	<u>3,791,284</u>	<u>1,000</u>	<u>4,461,235</u>
Total Assets at Fair Value . . . . .	<u>\$ 668,951</u>	<u>\$ 3,791,284</u>	<u>\$ 1,000</u>	<u>\$ 4,461,235</u>

(1) Comprising short-term certificates of deposit and commercial paper.

(2) Does not include certain other invested assets (\$1.2 million), primarily invested in limited partnerships, accounted for as cost-method investments and not measured at fair value.

At December 31, 2016, total Level III assets of \$1.0 million accounted for less than 0.1% of total assets measured at fair value. Within other investments is a Level III investment which was purchased during the second quarter of 2016, and there were no related gains or losses recorded during the year ended December 31, 2016. Within equity securities is a Level III investment that was purchased during the second quarter of 2015, and there were no related gains or losses recorded during the year ended December 31, 2016. There were no Level III liabilities at December 31, 2016.

There were no investment transfers between Level I, Level II or Level III for the year ended December 31, 2016.

Rollforward activity of Level III assets and liabilities (including realized and unrealized gains and losses, purchases, sales, issuances, settlements and transfers) was immaterial for the years ended December 31, 2017 and 2016.

### Valuation Methodologies for Assets Measured at Fair Value

The following are descriptions of our valuation methodologies for financial assets and liabilities measured at fair value.

We are responsible for the determination of the value of all investments carried at fair value and the supporting methodologies and assumptions. To assist us in this responsibility, we utilize independent third-party valuation service providers to gather, analyze and interpret market information and estimate fair values based upon relevant methodologies and assumptions for various asset classes and individual securities. We perform monthly quantitative and qualitative analyses on the prices received from third parties to determine whether the prices are reasonable estimates of fair value. Our analysis includes: (i) a review of the methodology used by third-party pricing services; (ii) a comparison of pricing services' valuations to other independent sources; (iii) a review of month-to-month price fluctuations; and (iv) a comparison of actual purchase and sale transactions with valuations received from third parties. These processes are designed to ensure that our investment values are accurately recorded, that the data inputs and valuation techniques utilized are appropriate and consistently applied and that the assumptions are reasonable and consistent with the objective of determining fair value.

*U.S. government and agency securities.* The fair value of U.S. government and agency securities is estimated using observed market transactions, including broker-dealer quotes and actual trade activity as a basis for valuation. U.S. government and agency securities are categorized in either Level I or Level II of the fair value hierarchy.

*State and municipal obligations.* The fair value of state and municipal obligations is estimated using recent transaction activity, including market observations. Valuation models are used, which incorporate bond structure, yield curve, credit spreads and other factors. These securities are generally categorized in Level II of the fair value hierarchy or in Level III when market-based transaction activity is unavailable.

*Money market instruments.* The fair value of money market instruments is based on daily prices, which are published and available to all potential investors and market participants. As such, these securities are categorized in Level I of the fair value hierarchy.

*Corporate bonds and notes.* The fair value of corporate bonds and notes is estimated using recent transaction activity, including market observations. Spread models are used that incorporate issuer and structure characteristics, such as credit risk and early redemption features, where applicable. These securities are generally categorized in Level II of the fair value hierarchy or in Level III when market-based transaction activity is unavailable.

*RMBS, CMBS, and Other ABS.* The fair value of these instruments is estimated based on prices of comparable securities and spreads and observable prepayment speeds. These securities are generally categorized in Level II of the fair value hierarchy or in Level III when market-based transaction activity is unavailable. The fair value of any Level III securities is generally estimated by discounting estimated future cash flows.

*Foreign government and agency securities.* The fair value of foreign government and agency securities is estimated using observed market yields used to create a maturity curve and observed credit spreads from market makers and broker-dealers. These securities are categorized in Level II of the fair value hierarchy.

*Equity securities.* The fair value of these securities is generally estimated using observable market data in active markets or bid prices from market makers and broker-dealers. Generally, these securities are categorized in Level I or II of the fair value hierarchy, as observable market data are readily available. From time to time, certain equity securities may be categorized in Level III of the fair value hierarchy due to a lack of market-based transaction data or the use of model-based valuations.

*Other investments.* These securities primarily consist of commercial paper and short-term certificates of deposit, which are categorized in Level II of the fair value hierarchy. Other investments also contains convertible notes of non-reporting issuers, which are categorized in Level III of the fair value hierarchy due to a lack of market-based transaction data.

#### Other Fair Value Disclosure

The carrying value and estimated fair value of other selected assets and liabilities not carried at fair value on our consolidated balance sheets were as follows as of the dates indicated:

	December 31, 2017		December 31, 2016	
	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
<b>(In thousands)</b>				
Assets:				
Other invested assets	\$ 334	\$ 3,226	\$ 1,195	\$ 3,789
Liabilities:				
Long-term debt	1,027,074	1,093,934	1,069,537	1,214,471

*Other Invested Assets.* The fair value of these assets, primarily invested in limited partnerships, is estimated based on the equity recorded within the financial statements provided by the limited partnerships. These interests are accounted for and carried as cost-method investments.

*Long-Term Debt.* At December 31, 2016, the carrying amount of long-term debt is net of the equity component of our convertible notes, which is accounted for under the accounting standard for convertible debt instruments that may be settled in cash upon conversion (including partial cash settlement). At December 31, 2017, none of our convertible notes remained outstanding. The fair value is estimated based on the quoted market prices for the same or similar instruments. See Note 12 for further information.

**6. Investments**

**Available for Sale Securities**

Our available for sale securities within our investment portfolio consisted of the following as of the dates indicated:

<b>(In thousands)</b>	<b>December 31, 2017</b>			
	<b>Amortized Cost</b>	<b>Fair Value</b>	<b>Gross Unrealized Gains</b>	<b>Gross Unrealized Losses</b>
Fixed-maturities available for sale:				
U.S. government and agency securities . . . . .	\$ 69,668	\$ 69,396	\$ 96	\$ 367
State and municipal obligations . . . . .	156,587	161,722	5,834	699
Corporate bonds and notes . . . . .	1,869,318	1,894,886	33,620	8,052
RMBS . . . . .	189,455	187,229	636	2,862
CMBS . . . . .	451,595	453,394	3,409	1,610
Other ABS . . . . .	672,715	674,548	2,655	822
Foreign government and agency securities . . . . .	31,416	32,207	823	33
Total fixed-maturities available for sale . . . . .	3,440,754	3,473,382 (1)	47,073	14,445
Equity securities available for sale (2) . . . . .	176,349	176,065 (1)	1,705	1,989
Total debt and equity securities . . . . .	<u>\$ 3,617,103</u>	<u>\$ 3,649,447</u>	<u>\$ 48,778</u>	<u>\$ 16,434</u>

- (1) Includes \$14.7 million and \$13.2 million of fixed maturities and equity securities, respectively, of securities loaned to third-party Borrowers under securities lending agreements, classified as other assets in our consolidated balance sheets, as further described below.
- (2) Primarily consists of investments in fixed-income and equity exchange-traded funds and publicly-traded business development company equities.

<b>(In thousands)</b>	<b>December 31, 2016</b>			
	<b>Amortized Cost</b>	<b>Fair Value</b>	<b>Gross Unrealized Gains</b>	<b>Gross Unrealized Losses</b>
Fixed-maturities available for sale:				
U.S. government and agency securities . . . . .	\$ 78,931	\$ 75,474	\$ 2	\$ 3,459
State and municipal obligations . . . . .	66,124	67,171	1,868	821
Corporate bonds and notes . . . . .	1,463,720	1,455,628	14,320	22,412
RMBS . . . . .	358,262	350,628	197	7,831
CMBS . . . . .	429,057	428,289	2,255	3,023
Other ABS . . . . .	433,603	434,728	2,037	912
Foreign government and agency securities . . . . .	24,771	24,594	148	325
Other investments . . . . .	2,000	2,000	—	—
Total fixed-maturities available for sale . . . . .	2,856,468	2,838,512	20,827	38,783
Equity securities available for sale (1) . . . . .	1,330	1,330	—	—
Total debt and equity securities . . . . .	<u>\$ 2,857,798</u>	<u>\$ 2,839,842</u>	<u>\$ 20,827</u>	<u>\$ 38,783</u>

- (1) Primarily consists of investments in Federal Home Loan Bank stock as required in connection with the memberships of Radian Guaranty and Radian Reinsurance in the FHLB.

**Gross Unrealized Losses and Related Fair Values of Available for Sale Securities**

For securities deemed “available for sale” and that are in an unrealized loss position, the following tables show the gross unrealized losses and fair values, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position, as of the dates indicated. Included in the amounts as of December 31, 2017, are loaned securities under securities lending agreements that are classified as other assets in our condensed consolidated balance sheets, as further described below.

(\$ in thousands) Description of Securities	December 31, 2017								
	Less Than 12 Months			12 Months or Greater			Total		
	# of securities	Fair Value	Unrealized Losses	# of securities	Fair Value	Unrealized Losses	# of securities	Fair Value	Unrealized Losses
U.S. government and agency securities . . . . .	6	\$ 23,309	\$ 129	3	\$ 9,799	\$ 238	9	\$ 33,108	\$ 367
State and municipal obligations. . . . .	21	65,898	699	—	—	—	21	65,898	699
Corporate bonds and notes . . . . .	152	672,318	4,601	32	139,105	3,451	184	811,423	8,052
RMBS. . . . .	8	19,943	204	26	101,812	2,658	34	121,755	2,862
CMBS. . . . .	35	139,353	1,395	4	3,518	215	39	142,871	1,610
Other ABS . . . . .	92	260,864	777	7	8,297	45	99	269,161	822
Foreign government and agency securities . . . . .	5	7,397	33	—	—	—	5	7,397	33
Equity securities. . . . .	13	149,785	1,989	—	—	—	13	149,785	1,989
Total. . . . .	332	\$1,338,867	\$ 9,827	72	\$ 262,531	\$ 6,607	404	\$1,601,398	\$ 16,434

(\$ in thousands) Description of Securities	December 31, 2016								
	Less Than 12 Months			12 Months or Greater			Total		
	# of securities	Fair Value	Unrealized Losses	# of securities	Fair Value	Unrealized Losses	# of securities	Fair Value	Unrealized Losses
U.S. government and agency securities . . . . .	7	\$ 73,160	\$ 3,459	—	\$ —	\$ —	7	\$ 73,160	\$ 3,459
State and municipal obligations. . . . .	7	30,901	821	—	—	—	7	30,901	821
Corporate bonds and notes . . . . .	185	788,876	22,135	2	4,582	277	187	793,458	22,412
RMBS. . . . .	56	311,031	7,822	1	1,398	9	57	312,429	7,831
CMBS. . . . .	37	218,170	2,909	2	6,585	114	39	224,755	3,023
Other ABS . . . . .	58	131,268	470	16	45,886	442	74	177,154	912
Foreign government and agency securities . . . . .	12	13,034	325	—	—	—	12	13,034	325
Total . . . . .	362	\$1,566,440	\$ 37,941	21	\$ 58,451	\$ 842	383	\$1,624,891	\$ 38,783

Impairments due to credit deterioration that result in a conclusion that the present value of cash flows expected to be collected will not be sufficient to recover the amortized cost basis of the security are considered other-than-temporary. Other declines in fair value (for example, due to interest rate changes, sector credit rating changes or company-specific rating changes) that result in a conclusion that the present value of cash flows expected to be collected will not be sufficient to recover the amortized cost basis of the security also may serve as a basis to conclude that an other-than-temporary impairment has occurred. To the extent we determine that a security is deemed to have had an other-than-temporary impairment, an impairment loss is recognized.

For the year ended December 31, 2017, we recorded other-than-temporary impairment losses in earnings of \$1.4 million. These losses comprised \$0.4 million due to our intent to sell certain corporate bonds at a loss and \$1.0 million due to credit deterioration, which included \$0.5 million related to a convertible note of a non-public company issuer included in debt securities and \$0.5 million related to a privately-placed equity security. For the year ended December 31, 2016, we recognized an other-than-temporary impairment loss in earnings of \$0.5 million due to our intent to sell certain corporate bonds at a loss. For the year ended December 31, 2017 there were no credit-related impairment losses recognized in accumulated other comprehensive income (loss). For the years ended December 31, 2016 and 2015, there were no credit-related impairment losses recognized in earnings or in accumulated other comprehensive income (loss).

Although we had other securities in an unrealized loss position as of December 31, 2017, we did not consider those securities to be other-than-temporarily impaired as of such date. For all investment categories, the unrealized losses of 12 months or greater duration as of December 31, 2017, were generally caused by interest rate or credit spread movements since the purchase date, and as such, we expect the present value of cash flows to be collected from these securities to be sufficient to recover the amortized cost basis of these securities. As of December 31, 2017, we did not have the intent to sell any debt securities in an unrealized loss position and we determined that it is more likely than not that we will not be required to sell the securities before recovery of their cost basis, which may be at maturity; therefore, we did not consider these investments to be other-than-temporarily impaired at December 31, 2017.

### Trading Securities

The trading securities within our investment portfolio, which are recorded at fair value, consisted of the following as of the dates indicated:

<b>(In thousands)</b>	<b>December 31,</b>	
	<b>2017</b>	<b>2016</b>
Trading securities:		
U.S. government and agency securities . . . . .	\$ —	\$ 33,042
State and municipal obligations . . . . .	214,841	259,573
Corporate bonds and notes . . . . .	307,271	453,617
RMBS . . . . .	29,520	38,214
CMBS . . . . .	50,561	78,984
Other ABS . . . . .	—	8,219
Foreign government and agency securities . . . . .	4,241	8,213
Total . . . . .	<u>\$ 606,434</u> (1)	<u>\$ 879,862</u>

(1) Includes a de minimis amount of loaned securities under securities lending agreements that are classified as other assets in our consolidated balance sheets, as further described below.

For trading securities held as of December 31 of each respective year, we had net unrealized gains of \$8.8 million during 2017, compared to net unrealized gains of \$16.8 million during 2016 and net unrealized losses of \$25.2 million during 2015.



## Securities Lending Agreements

During the third quarter of 2017, we commenced participation in a securities lending program whereby we loan certain securities in our investment portfolio to Borrowers for short periods of time. These securities lending agreements are collateralized financing arrangements whereby we transfer securities to third parties through an intermediary in exchange for cash or other securities. In all of our securities lending agreements, the securities we transfer to Borrowers (loaned securities) may be transferred or loaned by the Borrowers; however, we maintain effective control over all loaned securities, including: (i) retaining ownership of the securities; (ii) receiving the related investment or other income; and (iii) having the right to request the return of the loaned securities at any time. Although we report such securities at fair value within other assets on our consolidated balance sheets, the detailed information provided in this Note includes these securities. See Notes 2 and 9 for additional information.

Under our securities lending agreements, the Borrower is required to provide to us collateral, consisting of cash or securities, in amounts generally equal to or exceeding (i) 102% of the value of the loaned securities (105% in the case of foreign securities) or (ii) another agreed-upon percentage not less than 100% of the market value of the loaned securities. Any cash collateral we receive may be invested in liquid assets.

The Borrower generally may return the loaned securities to us at any time, which would require us to return the collateral within the standard settlement period for the loaned securities on the principal exchange or market in which the securities are traded. We manage this liquidity risk associated with cash collateral by maintaining the cash collateral in a short-term money-market fund with daily availability. The credit risk under these programs is reduced by the amounts of collateral received. On a daily basis, the value of the underlying securities that we have loaned to the Borrowers is compared to the value of cash and securities collateral we received from the Borrowers, and additional cash or securities are requested or returned, as applicable. In addition, we are indemnified against counterparty credit risk by the intermediary.

Key components of our securities lending agreements at December 31, 2017, consisted of the following:

(In thousands)	December 31, 2017
Loaned securities: (1) . . . . .	
Corporate bonds and notes . . . . .	\$ 13,862
Foreign government and agency securities . . . . .	867
Equity securities . . . . .	13,235
Total loaned securities, at fair value . . . . .	<u>\$ 27,964</u>
Total loaned securities, at amortized cost . . . . .	\$ 27,846
Securities collateral on deposit from Borrowers (2). . . . .	9,342
Reinvested cash collateral, at estimated fair value (3). . . . .	19,357

- (1) Our securities loaned under securities lending agreements are included at fair value within other assets on our consolidated balance sheets. All of our securities lending agreements are classified as overnight and revolving. None of the amounts are subject to offsetting.
- (2) Securities collateral on deposit with us from Borrowers may not be transferred or re-pledged unless the Borrower is in default, and is therefore not reflected in our consolidated financial statements.
- (3) All cash collateral received has been reinvested in accordance with the securities lending agreements and is included in short-term investments. Amounts payable on the return of cash collateral under securities lending agreements are included within other liabilities on our consolidated balance sheets.

There were no securities lending transactions outstanding at December 31, 2016.

### Net Investment Income

Net investment income consisted of:

<u>(In thousands)</u>	Year Ended December 31,		
	2017	2016	2015
Investment income:			
Fixed-maturities . . . . .	\$ 122,890	\$ 115,880	\$ 81,127
Equity securities . . . . .	4,318	86	4,539
Short-term investments . . . . .	5,453	3,086	745
Other . . . . .	987	1,161	600
Gross investment income . . . . .	133,648	120,213	87,011
Investment expenses . . . . .	(6,400)	(6,747)	(5,474)
Net investment income . . . . .	<u>\$ 127,248</u>	<u>\$ 113,466</u>	<u>\$ 81,537</u>

### Net Gains (Losses) on Investments and Other Financial Instruments

Net realized and unrealized gains (losses), including impairment losses, on investments and other financial instruments consisted of:

<u>(In thousands)</u>	Year Ended December 31,		
	2017	2016	2015
Net realized gains (losses) on investments:			
Fixed-maturities available for sale (1) . . . . .	\$ (3,014)	\$ 4,160	\$ (1,176)
Equities available for sale (2) . . . . .	368	(170)	69,150 <sup>(3)</sup>
Trading securities . . . . .	(5,995)	(237)	(9,231)
Short-term investments . . . . .	(16)	(135)	(24)
Other invested assets . . . . .	22	631	3,267
Other gains (losses) . . . . .	32	64	110
Net realized gains (losses) on investments . . . . .	(8,603)	4,313	62,096
Other-than-temporary impairment losses . . . . .	(1,420)	(526)	—
Unrealized gains (losses) on trading securities . . . . .	13,230	27,217	(27,015)
Total net gains (losses) on investments . . . . .	3,207	31,004	35,081
Net gains (losses) on other financial instruments . . . . .	414	(253)	612
Net gains (losses) on investments and other financial instruments . . . . .	<u>\$ 3,621</u>	<u>\$ 30,751</u>	<u>\$ 35,693</u>

(1) Components of net realized gains (losses) on fixed-maturities available for sale include:

<u>(In thousands)</u>	Year Ended December 31,		
	2017	2016	2015
Gross investment gains from sales and redemptions . . . . .	\$ 6,052	\$ 10,326	\$ 64
Gross investment losses from sales and redemptions . . . . .	(9,066)	(6,166)	(1,240)

(2) Net realized gains (losses) on equities available for sale is equal to the gross amount of gains and losses, respectively, realized for those periods.

(3) During the second quarter of 2015, we sold equity securities in our portfolio and reinvested the proceeds in assets that qualify as PMIERS-compliant Available Assets, recognizing pretax gains of \$69.2 million.

**Change in Unrealized Gains (Losses) Recorded in Accumulated Other Comprehensive Income (Loss)**

The change in unrealized gains (losses) recorded in accumulated other comprehensive income (loss) consisted of the following:

<b>(In thousands)</b>	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Fixed-maturities:			
Unrealized holding gains (losses) arising during the period, net of tax . . . . .	\$ 32,147	\$ 8,822	\$ (24,246)
Less reclassification adjustment for net gains (losses) included in net income (loss), net of tax . . . . .	(2,556)	2,361	(764)
Net unrealized gains (losses) on investments, net of tax . . . . .	<u>\$ 34,703</u>	<u>\$ 6,461</u>	<u>\$ (23,482)</u>
Equities:			
Unrealized holding gains (losses) arising during the period, net of tax . . . . .	\$ (244)	\$ (40)	\$ 1,673
Less reclassification adjustment for net gains (losses) included in net income (loss), net of tax . . . . .	(86)	(110)	44,947
Net unrealized gains (losses) on investments, net of tax . . . . .	<u>\$ (158)</u>	<u>\$ 70</u>	<u>\$ (43,274)</u>

**Contractual Maturities**

The contractual maturities of fixed-maturity investments available for sale are as follows:

<b>(In thousands)</b>	<b>December 31, 2017</b>	
	<b>Amortized Cost</b>	<b>Fair Value</b>
Due in one year or less . . . . .	\$ 36,688	\$ 36,645
Due after one year through five years (1) . . . . .	705,484	705,958
Due after five years through ten years (1) . . . . .	1,023,844	1,029,896
Due after ten years (1) . . . . .	360,973	385,712
RMBS (2) . . . . .	189,455	187,229
CMBS (2) . . . . .	451,595	453,394
Other ABS (2) . . . . .	672,715	674,548
Total (3) . . . . .	<u>\$ 3,440,754</u>	<u>\$ 3,473,382</u>

- (1) Actual maturities may differ as a result of calls before scheduled maturity.
- (2) RMBS, CMBS, and Other ABS are shown separately, as they are not due at a single maturity date.
- (3) Includes securities loaned under securities lending agreements.

**Other**

As of December 31, 2017 and 2016, our investment portfolio included no securities of countries that have obligations that have been under particular stress due to economic uncertainty, potential restructuring and ratings downgrades.

For the years ended December 31, 2017, 2016 and 2015, we did not sell or transfer any fixed-maturity investments classified as held to maturity. For the years ended December 31, 2017, 2016 and 2015, we did not transfer any securities from the available for sale or trading categories.

As of December 31, 2017, we did not have any investment in any person (including affiliates thereof) that exceeded 10% of our total stockholders' equity.

Securities on deposit with various state insurance commissioners amounted to \$11.8 million and \$10.8 million at December 31, 2017 and 2016, respectively.

At December 31, 2016, Radian Guaranty had \$63.9 million in a collateral account invested in and classified as part of our trading securities and pledged to cover Loss Mitigation Activity on the loans subject to the Freddie Mac Agreement. During the third quarter of 2017, the scheduled final settlement date under the Freddie Mac Agreement occurred. As of December 31, 2017, the remaining balance of \$5.6 million in the collateral account was invested in and classified as short-term investments and pledged to cover Loss Mitigation Activity and pending claims activity already in process but not yet finalized. See Note 11 for additional information.

## 7. Goodwill and Other Intangible Assets, Net

All of our goodwill and other intangible assets relate to our Services segment. The following table shows the changes in the carrying amount of goodwill as of and for the years ended December 31, 2017 and 2016:

<u>(In thousands)</u>	<u>Goodwill</u>	<u>Accumulated Impairment Losses</u>	<u>Net</u>
Balance at December 31, 2015 . . . . .	\$ 197,265	\$ (2,095)	\$ 195,170
Goodwill acquired . . . . .	—	—	—
Impairment losses . . . . .	—	—	—
Balance at December 31, 2016 . . . . .	197,265	(2,095)	195,170
Goodwill acquired . . . . .	126	—	126
Impairment losses . . . . .	—	(184,374)	(184,374)
Balance at December 31, 2017 . . . . .	<u>\$ 197,391</u>	<u>\$ (186,469)</u>	<u>\$ 10,922</u>

## Accounting Policy Considerations

For purposes of performing our goodwill impairment test, we have concluded that the Services segment constitutes one reporting unit to which all of our recorded goodwill is related. We generally perform our annual goodwill impairment test during the fourth quarter of each year, using balances as of the prior quarter. However, if there are events and circumstances that indicate that it is more likely than not that the fair value of a reporting unit is less than the carrying amount, we will perform a quantitative analysis on an interim basis. As part of our quantitative goodwill impairment assessment, we estimate the fair value of the reporting unit using primarily an income approach and, at a lower weighting, a market approach. The key driver in our fair value analysis is forecasted future cash flows.

In the second quarter of 2017, we elected to early adopt the update to the accounting standard regarding goodwill and other intangibles, as discussed in Note 2. In accordance with the updated standard, the fair value of the reporting unit is compared with its carrying amount, with any excess of the reporting unit's carrying amount over its estimated fair value recognized as an impairment charge, up to the full amount of the goodwill allocated to the reporting unit, after adjusting the carrying value for any impairment of other intangibles or long-lived assets. For additional information on our accounting policies for goodwill and other intangible assets, see Note 2.

## Impairment Analysis

We performed an interim goodwill impairment test as of June 30, 2017, due to events and circumstances identified during our June 30, 2017 qualitative analysis that indicated that it was more likely than not that the fair value was less than the carrying amount. We performed our qualitative assessment of goodwill at June 30, 2017, focusing on the impact of certain key factors affecting our Services segment, including: (i) decisions related to changes in the business strategy for our Services segment determined in the second quarter of 2017, following our Chief Executive Officer's evaluation of both existing products and new product development opportunities and (ii) second quarter 2017 results for our Services segment which were negatively impacted by market trends. Our expectation that these market trends will persist negatively impacted our projected future cash flows compared to the projections used in our prior valuation.

Our Chief Executive Officer joined Radian in March 2017 and initiated a review to evaluate the strategic direction of the Services segment. Based on this strategic review, in the second quarter of 2017, we made several decisions with respect to business strategy for the segment in order to reposition the Services business to drive future growth and profitability. We determined to: (i) discontinue certain initiatives, as discussed below and (ii) shift the strategy of the Services segment to focus on core products and services that, in the current market environment, are expected to have higher growth potential, to produce more predictable, recurring revenue streams over time and to better align with our market expertise and the needs of our customers. Our recent strategic decisions include an intent to scale back or, in certain cases, discontinue certain planned or existing initiatives, such as discontinuing a new product line which, based on a market study received in the second quarter of 2017, would require significant additional investment to achieve the growth rates that had been expected. The impact of the strategic decisions determined during the second quarter resulted in a meaningful reduction in the fair value of the Services segment since the previous annual impairment test.

During the second quarter of 2017, the Services segment performed below forecasted levels. In combination with the recent underperformance of the Services segment, the anticipated business and growth opportunities for certain business lines in our Services segment have been impacted by: (i) market demand, which was lower than anticipated; (ii) increased competition, including with respect to product alternatives and pricing; and (iii) delays in the realization of efficiencies and margin improvements associated with certain technology initiatives. The demand for certain products and services has decreased due to several factors. Given the decreased volume of refinancings in the mortgage market that began in the first half of 2017, our customers have excess internal capacity which they are choosing to utilize and as a result they are less reliant on outsourcing to us. Additionally, due to market and competitive pressures, we renewed the contract terms with one of our largest customers during the second quarter of 2017, with lower pricing and volumes than expected in order to retain the engagement. We also experienced lower than expected customer acceptance for certain of our current and proposed products and services. The impact of these factors, partially offset by related future expense reductions, constituted a majority of the decline in the fair value of the Services segment since the previous annual impairment test.

Our quantitative valuation analysis, performed in connection with our annual goodwill impairment analysis in 2016, relied heavily on achieving the growth rates in our projected future cash flows. The impact of the market trends observed during the second quarter of 2017, which we currently expect to continue, together with our strategic decisions discussed above, resulted in changes to our expected product mix and the expected growth rates associated with various initiatives, which in turn generated material reductions to our forecasted net cash flows. Given the significant negative impact that the market trends and our strategic decisions would have on the timing and amount of our projected future cash flows in comparison to our original projections, we performed a quantitative analysis of the associated goodwill and other intangible assets as of June 30, 2017.

As a result of the quantitative goodwill analysis, we recorded an impairment charge of \$184.4 million for the three months ended June 30, 2017, to reduce the carrying amount of the Services segment to its estimated fair value. As discussed further below, prior to finalizing this amount, we also evaluated the recoverability of the segment's other intangible assets and recorded impairment charges of \$15.8 million related to the Services segment's other intangible assets. See "—Other Intangible Assets," below. Substantially all of our goodwill and other intangible assets will continue to be deductible for tax purposes in accordance with the originally scheduled amortization period of approximately 15 years.

During the fourth quarter of 2017, we elected to perform a qualitative annual goodwill impairment analysis, which requires us to assess all relevant events and circumstances that could affect the significant inputs used to determine the fair value of the reporting unit. We considered factors such as: (i) the increase in and timing of revenues during the third and fourth quarters of 2017 (as compared to the forecasted amounts for the same periods); (ii) the impact to projected cash flows, a significant input used to determine the fair value of the reporting unit, associated with the TCJA enacted in the fourth quarter of 2017; (iii) our recent interim goodwill impairment test and recognition of impairment charges; and (iv) the recent sale of a business line. Based on our qualitative assessment in the fourth quarter of 2017, we concluded that it is not "more likely than not" that the fair value of the Services reporting unit is less than its carrying amount as of December 31, 2017.

### **Other Intangible Assets**

As of June 30, 2017, we also evaluated the recoverability of our other intangible assets. Factors affecting the estimated fair value of our goodwill, as described above, also affected the estimated recoverability of our other intangible assets. Based on our analysis in the second quarter of 2017, impairment was indicated for the Services segment's client relationships and technology, related to certain product lines that were affected by the factors above. There was no impairment indicated for the remaining intangible assets, as the remaining carrying amounts were estimated to be recoverable despite the decline in projected earnings.

Client relationships represent the value of the specifically acquired customer relationships and are valued using the excess earnings approach using estimated client revenues, attrition rates, implied royalty rates and discount rates. The excess earnings approach estimates the present value of expected earnings in excess of a traditional return on business assets. For the three months ended June 30, 2017, we recorded an impairment charge of \$14.9 million related to the segment's client relationships, primarily due to the changes in estimated client revenues based on the factors discussed above in "—Impairment Analysis." The remaining carrying value of client relationships is supported by projected earnings.

For the three months ended June 30, 2017, we also recorded an impairment charge of \$0.9 million related to technology, representing the estimated unrecoverable value of a portion of the acquired proprietary software used to provide services in a product line impacted by the factors described above in "—Impairment Analysis." The remaining carrying value of technology is supported by technology that we expect to continue to use in its current form, in either the same or an alternative capacity.

The following is a summary of the gross and net carrying amounts and accumulated amortization of our other intangible assets as of and for the year to date periods indicated:

	December 31, 2017		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
<b>(In thousands)</b>			
Client relationships (1) . . . . .	\$ 82,530	\$ (41,596)	\$ 40,934
Technology (2) . . . . .	15,250	(8,922)	6,328
Trade name and trademarks . . . . .	8,340	(3,003)	5,337
Client backlog . . . . .	6,680	(6,006)	674
Non-competition agreements . . . . .	185	(168)	17
Total . . . . .	<u>\$ 112,985</u>	<u>\$ (59,695)</u>	<u>\$ 53,290</u>

- (1) Includes an impairment charge of \$14.9 million.  
(2) Includes an impairment charge of \$0.9 million.

	December 31, 2016		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
<b>(In thousands)</b>			
Client relationships . . . . .	\$ 83,316	\$ (19,696)	\$ 63,620
Technology . . . . .	15,250	(5,497)	9,753
Trade name and trademarks . . . . .	8,340	(2,125)	6,215
Client backlog . . . . .	6,680	(5,235)	1,445
Non-competition agreements . . . . .	185	(160)	25
Total . . . . .	<u>\$ 113,771</u>	<u>\$ (32,713)</u>	<u>\$ 81,058</u>

For financial reporting purposes, other intangible assets with finite lives will be amortized over their applicable estimated useful lives in a manner that approximates the pattern of expected economic benefit from each intangible asset, as follows:

	Estimated Useful Life
Client relationships . . . . .	3 years - 15 years
Technology . . . . .	3 years - 8 years
Trade name and trademarks . . . . .	6 years - 10 years
Client backlog . . . . .	3 years - 5 years
Non-competition agreements . . . . .	2 years - 3 years



For the years ended December 31, 2017, 2016 and 2015, amortization expense was \$11.8 million, \$13.2 million and \$13.0 million, respectively. The estimated aggregate amortization expense for 2018 and thereafter is as follows:

<u>(In thousands)</u>	
2018 .....	\$ 10,316
2019 .....	8,790
2020 .....	7,412
2021 .....	5,833
2022 .....	5,081
Thereafter .....	15,858
Total .....	<u>\$ 53,290</u>

## 8. Reinsurance

In our mortgage insurance business, from time to time we use reinsurance as a strategy to manage our capital position and risk profile, including, among other things, managing Radian Guaranty's regulatory Risk-to-capital and compliance with the PMIERS financial requirements. Premiums are ceded under the QSR Transactions, the 2016 Single Premium QSR Transaction and captive arrangements.

The effect of reinsurance on net premiums written and earned is as follows:

<u>(In thousands)</u>	<u>Year Ended December 31,</u>		
	<u>2017</u>	<u>2016</u>	<u>2015</u>
Net premiums written—insurance:			
Direct .....	\$ 1,032,735	\$ 1,000,111	\$ 1,009,409
Assumed .....	25	29	104
Ceded (1) .....	(214,343)	(266,306)	(41,008)
Net premiums written—insurance .....	<u>\$ 818,417</u>	<u>\$ 733,834</u>	<u>\$ 968,505</u>
Net premiums earned—insurance:			
Direct .....	\$ 990,016	\$ 999,093	\$ 973,645
Assumed .....	28	35	43
Ceded (1) .....	(57,271)	(77,359)	(57,780)
Net premiums earned—insurance .....	<u>\$ 932,773</u>	<u>\$ 921,769</u>	<u>\$ 915,908</u>

(1) Net of profit commission.

### QSR Transactions

In 2012, Radian Guaranty entered into the QSR Transactions with a third-party reinsurance provider. Radian Guaranty has ceded the maximum amount permitted under the QSR Transactions; therefore, Radian Guaranty is no longer ceding NIW under these transactions. RIF ceded under the QSR Transactions was \$1.2 billion, \$1.6 billion and \$2.1 billion as of December 31, 2017, 2016 and 2015, respectively.

### 2016 Single Premium QSR Transaction

In the first quarter of 2016, in order to proactively manage the risk and return profile of Radian Guaranty's insured portfolio and continue managing its position under the PMIERS financial requirements in a cost-effective manner, Radian Guaranty entered into the 2016 Single Premium QSR Transaction with a panel of third-party reinsurers. Under the 2016 Single Premium QSR Transaction, effective January 1, 2016, Radian Guaranty began ceding the following Single Premium IIF and NIW, subject to certain conditions:

- 20% of its existing performing Single Premium Policies written between January 1, 2012 and March 31, 2013;

- 35% of its existing performing Single Premium Policies written between April 1, 2013 and December 31, 2015; and
- 35% of its Single Premium NIW from January 1, 2016 to December 31, 2017, subject to a limitation on ceded premiums written equal to \$195 million for policies issued between January 1, 2016 and December 31, 2017.

Radian Guaranty receives a 25% ceding commission for premiums ceded pursuant to this transaction. Radian Guaranty also receives a profit commission, provided that the loss ratio on the loans covered under the agreement generally remains below 55%. Losses on the ceded risk above this level reduce Radian Guaranty's profit commission on a dollar-for-dollar basis.

The agreement is scheduled to terminate on December 31, 2027; however, Radian Guaranty has the option, based on certain conditions and subject to a termination fee, to terminate the agreement as of January 1, 2020, or at the end of any calendar quarter thereafter, which would result in Radian Guaranty reassuming the related RIF in exchange for a net payment from the reinsurer calculated in accordance with the terms of the agreement.

Effective December 31, 2017, we amended the 2016 Single Premium QSR Transaction to increase the amount of ceded risk on performing loans under the agreement from 35% to 65% for the 2015 through 2017 vintages. As of the effective date, the result of this amendment increases the amount of risk ceded on Single Premium Policies, including for the purposes of calculating any future ceding commissions and profit commissions that Radian Guaranty will earn. It will also increase the future amounts of our ceded premiums and ceded losses. RIF ceded under the 2016 Single Premium QSR Transaction was \$6.9 billion and \$3.8 billion as of December 31, 2017 and 2016, respectively.

### Ceded Premiums, Commissions and Losses

The following tables show the amounts related to the QSR Transactions and the 2016 Single Premium QSR Transaction for the periods indicated:

(In thousands)	QSR Transactions			2016 Single Premium QSR Transaction		
	Year Ended December 31,			Year Ended December 31,		
	2017	2016	2015	2017	2016	2015
Ceded premiums written (1)	\$ 19,356	\$ 28,097	\$ 30,213	\$ 193,517	\$ 233,206	\$ —
Ceded premiums earned (1)	28,503	42,515	46,975	27,284	29,808	—
Ceding commissions written	5,536	8,019	11,443	55,333	66,153	—
Ceding commissions earned (2)	13,122	16,573	14,453	13,774	15,303	—
Ceded losses, net	771	1,858	1,187	2,490	2,262	—

(1) Net of profit commission.

(2) Includes amounts reported in policy acquisition costs and other operating expenses.

### 2018 Single Premium QSR Transaction

In October 2017, we entered into the 2018 Single Premium QSR Transaction with a panel of third-party reinsurers. Under the 2018 Single Premium QSR Transaction, beginning with the business written in January 2018, we expect to cede 65% of our Single Premium NIW, subject to certain conditions and a limitation on ceded premiums written equal to \$335 million for policies issued between January 1, 2018 and December 31, 2019. Notwithstanding this limitation, the parties may mutually agree to increase the amount of ceded risk above this level.

Radian Guaranty will receive a 25% ceding commission for premiums ceded pursuant to this transaction. Radian Guaranty will also receive an annual profit commission based on the performance of the loans subject to the agreement, provided that the loss ratio on the subject loans is below 56% for that calendar year. Radian Guaranty may discontinue ceding new policies under the agreement at the end of any calendar quarter.

The agreement is scheduled to terminate on December 31, 2029. However, Radian Guaranty may terminate this agreement prior to the scheduled date if one or both of the GSEs no longer grant full credit for the reinsurance. Radian Guaranty also has the option, based on certain conditions and subject to a termination fee, to terminate the agreement as of January 1, 2022, or at the end of any calendar quarter thereafter. Termination of the agreement would result in Radian Guaranty reassuming the related RIF in exchange for a net payment from the reinsurer calculated in accordance with the terms of the agreement.

### Captive Reinsurance Arrangements

In the past, we and other companies in the mortgage insurance industry also participated in reinsurance arrangements with mortgage lenders commonly referred to as “captive reinsurance arrangements.” Under captive reinsurance arrangements, a mortgage lender typically established a reinsurance company that assumed part of the risk associated with the portfolio of that lender’s mortgages insured by us on a Flow Basis. In return for the reinsurance company’s assumption of a portion of the risk, we ceded a portion of the mortgage insurance premiums paid to us to the reinsurance company.

During the financial crisis, losses increased significantly and almost all captive reinsurance arrangements attached, thereby requiring our captive reinsurers to make payments to us. The reinsurance recoverable on loss reserves related to captive agreements was \$0.3 million at December 31, 2017, compared to \$0.4 million as of December 31, 2016.

All of our existing captive reinsurance arrangements are operating on a run-off basis, meaning that no new business is being placed in these captives. We have not entered into any new captives since 2007 and, pursuant to consent orders with the CFPB and the Minnesota Department of Commerce, we have agreed not to enter into any new captives until 2025. During 2017, our RIF ceded under captive reinsurance arrangements declined to \$9.9 million as of December 31, 2017, compared to \$12.7 million as of December 31, 2016, as we terminated several captive reinsurance arrangements during the year.

### Collateral

Although we use reinsurance as one of our risk management tools, reinsurance does not relieve us of our obligations to our policyholders. In the event the reinsurers are unable to meet their obligations to us, our insurance subsidiaries would be liable for any defaulted amounts. However, in all of our reinsurance transactions, the reinsurers have established a trust to help secure our potential cash recoveries. In addition, for the 2016 Single Premium QSR Transaction, Radian Guaranty holds amounts received from ceded premiums written to collateralize the reinsurers’ obligations, which is reported in reinsurance funds withheld on the consolidated balance sheets. Any loss recoveries and profit commissions to Radian Guaranty related to the 2016 Single Premium QSR Transaction are expected to be realized from this account.

### 9. Other Assets

The following table shows the components of other assets for the periods indicated:

<u>(In thousands)</u>	December 31,	
	2017	2016
Deposit with the IRS (Note 10) . . . . .	\$ 88,557	\$ 88,557
Property and equipment (1) (2) . . . . .	87,042	70,665
Company-owned life insurance . . . . .	85,862	83,248
Loaned securities (Note 6) . . . . .	27,964	—
Accrued investment income . . . . .	31,389	29,255
Deferred policy acquisition costs . . . . .	16,987	14,127
Reinsurance recoverables . . . . .	8,492	7,368
Other . . . . .	61,556	50,615
Total other assets . . . . .	\$ 407,849	\$ 343,835

- (1) Property and equipment at cost, less accumulated depreciation of \$106.0 million and \$118.5 million at December 31, 2017 and 2016, respectively. Depreciation expense was \$17.4 million, \$11.7 million and \$6.7 million for the years ended December 31, 2017, 2016 and 2015 respectively.
- (2) Includes \$44.0 million and \$49.7 million at December 31, 2017 and 2016, respectively, related to our technology upgrade project and \$15.5 million at December 31, 2017 of leasehold improvements related to our new corporate headquarters.

**10. Income Taxes**

**Income Tax Provision**

The components of our consolidated income tax provision from continuing operations are as follows:

<u>(In thousands)</u>	Year Ended December 31,		
	2017	2016	2015
Current provision . . . . .	\$ 59,122	\$ 4,546	\$ 120
Deferred provision . . . . .	166,527	170,887	156,170
Total income tax provision . . . . .	<u>\$ 225,649</u>	<u>\$ 175,433</u>	<u>\$ 156,290</u>

The reconciliation of taxes computed at the statutory tax rate of 35% to the provision for income taxes on continuing operations is as follows:

<u>(In thousands)</u>	Year Ended December 31,		
	2017	2016	2015
Provision for income taxes computed at the statutory tax rate . . . . .	\$ 121,358	\$ 169,290	\$ 153,240
Change in tax resulting from:			
Repurchase premium on convertible notes . . . . .	(96)	9,988	(6,674)
State tax (benefit) . . . . .	(15,641)	(8,974)	(7,619)
Valuation allowance . . . . .	18,197	10,663	11,931
Remeasurement of net deferred tax assets due to the TCJA . . . . .	102,617	—	—
Other, net . . . . .	(786)	(5,534)	5,412
Provision for income taxes . . . . .	<u>\$ 225,649</u>	<u>\$ 175,433</u>	<u>\$ 156,290</u>

## Deferred Tax Assets and Liabilities

The significant components of our net deferred tax assets and liabilities from continuing operations are summarized as follows:

<u>(In thousands)</u>	December 31,	
	2017	2016
Deferred tax assets:		
Accrued expenses . . . . .	\$ 30,267	\$ 41,219
Unearned premiums . . . . .	35,035	67,538
NOL . . . . .	—	179,128
Net unrealized loss on investments . . . . .	—	6,285
State income taxes . . . . .	68,577	51,875
Partnership investments . . . . .	47,991	73,918
Loss reserves . . . . .	1,397	3,801
Alternative minimum tax credit carryforward . . . . .	57,086	7,367
Goodwill and Intangibles . . . . .	36,947	—
Other . . . . .	41,499	49,511
Total deferred tax assets . . . . .	318,799	480,642
Deferred tax liabilities:		
Convertible and other long-term debt . . . . .	—	2,212
Differences in fair value of financial instruments . . . . .	3,833	1,758
Net unrealized gain on investments . . . . .	6,792	—
Depreciation . . . . .	11,138	10,626
Goodwill and Intangibles . . . . .	—	4,758
Other . . . . .	2,446	2,598
Total deferred tax liabilities . . . . .	24,209	21,952
Less: Valuation allowance . . . . .	65,023	46,892
Net deferred tax asset . . . . .	\$ 229,567	\$ 411,798

## Tax Reform

On December 22, 2017, H.R.1, the TCJA, was signed into law. In accordance with the provisions of the accounting standard regarding accounting for income taxes, changes in tax rates and tax law are accounted for in the period of enactment, which, for federal legislation, is the date the President signed the bill into law. Effective January 1, 2018, the TCJA, among other things, reduces the federal corporate income tax rate from 35% to 21%, repeals the corporate alternative minimum tax and modifies certain limitations on executive compensation. Under GAAP, the effect of tax rate changes on deferred tax balances is recorded as a component of the income tax provision related to continuing operations for the period in which the new tax law is enacted.

Because the TCJA was passed late in the fourth quarter of 2017, and ongoing guidance and accounting interpretation is expected over the next 12 months, as of December 31, 2017, we have not completed our accounting for the effects of the TCJA on certain deferred tax balances; however, we have made provisional estimates of those amounts in accordance with SAB 118. These provisional estimates primarily relate to NOLs, loss reserves, tax depreciation, share-based compensation and state taxes. We expect to complete our analysis of all deferred tax balances within the 12-month measurement period defined by SAB 118. Accordingly, we have recognized a non-cash, provisional income tax expense of \$102.6 million, which is included as a component of the income tax provision for the year ended December 31, 2017. The ultimate impact of the TCJA may differ from our provisional estimates due to, among other things, future guidance that may be issued, changes in our interpretation or assumptions with respect to reversal periods, the outcome of our potential settlement of the IRS Matter and future actions that we may take as a result of the new tax law.

For periods beginning after December 31, 2017, we will realize a significant reduction in our annualized effective tax rate, before considering Discrete Items, primarily due to the reduction in the federal corporate tax rate from 35% to 21%. Typically, when the statutory tax rate is constant between periods, our return-to-provision adjustments for temporary differences do not impact our overall effective tax rate. However, with the change in the corporate tax rate, our return-to-provision adjustments recorded during 2018 may affect our current provision at a 35% tax rate while affecting our deferred provision at a 21% tax rate. Our return-to-provision adjustments are accounted for as Discrete Items and are generally recorded in the three-month period ending December 31.

### **Current and Deferred Taxes**

As of December 31, 2017, we recorded a net current income tax payable of \$95.6 million, which primarily consists of liabilities related to applying the standards of accounting for uncertainty in income taxes, and a current federal income tax recoverable of \$48.4 million. Before consideration of uncertain tax positions, we have approximately \$124.4 million of U.S. NOL carryforwards, \$57.1 million of alternative minimum tax credit carryforwards and \$6.5 million of research and development tax credit carryforwards as of December 31, 2017. Our deferred tax asset relating to our U.S. NOL carryforward is reduced by the impact of uncertain tax positions in the above table of deferred tax assets and liabilities. To the extent not utilized, the U.S. NOL carryforwards will expire during tax years 2031 and 2032, and the research and development tax credit carryforwards will expire during tax years 2031 through 2037. We expect our alternative minimum tax credit carryforwards to be fully utilized or refunded in the near term. Certain entities within our consolidated group have also generated deferred tax assets of approximately \$69.5 million, relating primarily to state and local NOL carryforwards which, if unutilized, will expire during various future tax periods.

### **Valuation Allowances**

We are required to establish a valuation allowance against our deferred tax assets when it is more likely than not that all or some portion of our deferred tax assets will not be realized. At each balance sheet date, we assess our need for a valuation allowance. Our assessment is based on all available evidence, both positive and negative. This requires management to exercise judgment and make assumptions regarding whether our deferred tax assets will be realized in future periods. We have determined that certain non-insurance entities within Radian may continue to generate taxable losses on a separate company basis in the near term and may not be able to fully utilize certain state and local NOLs on their state and local tax returns. Therefore, with respect to deferred tax assets relating to these state and local NOLs and other state timing adjustments, we retained a valuation allowance of \$65.0 million at December 31, 2017 and \$46.9 million at December 31, 2016.

### **Tax Benefit Preservation Plan**

Our ability to fully use our tax assets such as NOLs and tax credit carryforwards could be limited if we experience an “ownership change” within the meaning of IRC Section 382. IRC Section 382 rules governing when a change in ownership occurs are complex and subject to interpretation; however, in general, an ownership change would occur if any “five-percent shareholders,” as defined under IRC Section 382, collectively increase their ownership by more than 50 percentage points over a rolling three-year period. As of December 31, 2017, we have not experienced an ownership change under IRC Section 382. However, if we were to experience a change in ownership under IRC Section 382 in a future period, then we may be delayed in our ability to utilize our NOL and tax credit carryforwards in future periods.

In 2009, we adopted a Tax Benefit Preservation Plan (the “Plan”), which, as amended, was approved by our stockholders at our 2010, 2013 and 2016 annual meetings. We also adopted certain amendments to our amended and restated bylaws (the “Bylaw Amendment”) and at our 2010, 2013 and 2016 annual meetings, our stockholders approved certain amendments to our amended and restated certificate of incorporation (the “Charter Amendment”). These steps were taken to protect our ability to utilize our NOLs and other tax assets and to attempt to prevent an “ownership change” under U.S. federal income tax rules by discouraging and in most cases restricting certain transfers of our common stock that would: (i) create or result in a person becoming a five-percent shareholder under IRC Section 382 or (ii) increase the stock ownership of any existing five-percent shareholder under IRC Section 382. The continued effectiveness of the Plan, the Bylaw Amendment and the Charter Amendment are subject to periodic examination by Radian Group’s board of directors and the reapproval of the Plan and the Charter Amendment by our stockholders every three years. We currently expect that our tax benefit preservation measures will be terminated no later than 2019.



## IRS Matter

As previously disclosed, we are contesting adjustments resulting from the examination by the IRS of our 2000 through 2007 consolidated federal income tax returns. The IRS opposes the recognition of certain tax losses and deductions that were generated through our investment in a portfolio of non-economic REMIC residual interests and has proposed denying the associated tax benefits of these items. We appealed these proposed adjustments to the Internal Revenue Service Office of Appeals and made “qualified deposits” with the U.S. Treasury of \$85 million in June 2008 relating to the 2000 through 2004 tax years and \$4 million in May 2010 relating to the 2005 through 2007 tax years in order to avoid the accrual of incremental above-market-rate interest with respect to the proposed adjustments.

We attempted to reach a compromised settlement with the Internal Revenue Service Office of Appeals, but in September 2014 we received Notices of Deficiency covering the 2000 through 2007 tax years that assert unpaid taxes and penalties of \$157 million. The Deficiency Amount has not been reduced to reflect our NOL carryback ability. As of December 31, 2017, there also would be interest of approximately \$149 million related to these matters. Depending on the outcome, additional state income taxes, penalties and interest (estimated in the aggregate to be approximately \$37 million as of December 31, 2017) also may become due when a final resolution is reached. The Notices of Deficiency also reflected additional amounts due of \$105 million, which are primarily associated with the disallowance of the previously filed carryback of our 2008 NOL to the 2006 and 2007 tax years. We currently believe that the disallowance of our 2008 NOL carryback is a precautionary position by the IRS and that we will ultimately maintain the benefit of this NOL carryback claim.

On December 3, 2014, we petitioned the U.S. Tax Court (“Tax Court”) to litigate the Deficiency Amount. On September 1, 2015, we received a notice that the case had been scheduled for trial. However, the parties jointly filed, and the Tax Court approved, motions for continuance in this matter to postpone the trial date. Also, in February 2016, the Tax Court approved a joint motion to consolidate for trial, briefing and opinion our case with a similar case involving MGIC Investment Corporation. During 2016, we held several meetings with the IRS in an attempt to reach a compromised settlement on the issues presented in our dispute. In October 2017, the parties informed the Tax Court that they believe they have reached agreement in principle on all issues in the dispute. In November 2017, as required by law, the agreement was reported to the JCT for review. The agreement cannot be finalized until the IRS considers the views, if any, expressed by the JCT about the matter. If we are unable to complete a compromised settlement, then the ongoing litigation could take several years to resolve and may result in substantial legal expenses. We can provide no assurance regarding the outcome of any such litigation or whether a compromised settlement with the IRS will ultimately be reached. We currently believe that an adequate provision for income taxes has been made for the potential liabilities that may result from this matter. However, if the ultimate resolution of this matter produces a result that differs materially from our current expectations, there could be a material impact on our effective tax rate, results of operations and cash flows.

## Unrecognized Tax Benefits

As of December 31, 2017, we have \$112.3 million of unrecognized tax benefits, including \$65.7 million of interest and penalties, that would affect the effective tax rate, if recognized. Our policy for the recognition of interest and penalties associated with uncertain tax positions is to record such items as a component of our income tax provision, of which \$2.2 million, \$1.8 million and \$0.8 million were recorded for the years ended December 31, 2017, 2016 and 2015, respectively.

A reconciliation of the beginning and ending unrecognized tax benefits is as follows:

<u>(In thousands)</u>	Year Ended December 31,	
	2017	2016
Balance at beginning of period . . . . .	\$ 123,028	\$ 124,246
Tax positions related to the current year:		
Increases . . . . .	2,343	1,203
Decreases . . . . .	—	(1,835)
Tax positions related to prior years:		
Increases . . . . .	24,122	22,389
Decreases . . . . .	(1,437)	(1,406)
Lapses of applicable statute of limitation . . . . .	(24,105)	(21,569)
Balance at end of period . . . . .	<u>\$ 123,951</u>	<u>\$ 123,028</u>

In previous years, we took a return position in various jurisdictions that we are not required to remit taxes with regard to the income generated from our investment in certain partnership interests. Although we believe that these tax positions are more likely than not to succeed if adjudicated, measurement of the potential amount of liability for state and local taxes and the potential for penalty and interest thereon is performed on a quarterly basis. Our net unrecognized tax benefits related to prior years increased by \$22.7 million during 2017. This net increase primarily reflects the impact of unrecognized tax benefits associated with our recognition of certain premium income. Although unrecognized tax benefits for this item decreased by \$24.1 million due to the expiration of the applicable statute of limitations for the taxable period ended December 31, 2013, the related amounts continued to impact subsequent years, resulting in a corresponding increase to the unrecognized tax benefits related primarily to the 2014 taxable year.

As discussed above, we believe we have reached a basis for a compromised settlement with the IRS on the issues present in our case. The resolution and computations of our adjusted tax liabilities for the 2000 through 2007 tax years have been presented to the JCT for review and cannot be finalized until the IRS considers the views, if any, expressed by the JCT about the matter. However, if we are able to achieve a compromised settlement with the IRS, then it is estimated that over the next 12 months approximately \$70.0 million of unrecognized tax benefits in the above tabular reconciliation may be reversed pursuant to the accounting standard for uncertain tax positions.

In the event we are not successful in defense of our tax positions taken for U.S. federal income tax purposes, and for which we have recorded unrecognized tax benefits, then such adjustments originating in NOL or NOL carryback years may reduce our existing NOL.

The following calendar tax years, listed by major jurisdiction, remain subject to examination:

U.S. Federal Corporation Income Tax (1) . . . . .	2000 - 2007, 2014 - 2016
Significant State and Local Jurisdictions (2) . . . . .	2000 - 2016

- 
- (1) For the 2000 through 2007 calendar tax years, we petitioned the U.S. Tax Court to litigate the IRS Notices of Deficiency resulting from the examination of our 2000 through 2007 consolidated federal income tax returns. This litigation relates to the recognition of certain tax benefits associated with our investment in a portfolio of non-economic REMIC residual interests.
- (2) California, Florida, Georgia, New York, Ohio, Pennsylvania and New York City.

## 11. Losses and Loss Adjustment Expenses

All of the balance and activity of our consolidated reserve for losses and loss adjustment expense relate to the Mortgage Insurance segment. The following table shows our reserve for losses and LAE by category at the end of each period indicated:

<u>(In thousands)</u>	<u>Year Ended December 31,</u>	
	<u>2017</u>	<u>2016</u>
Reserves for losses by category:		
Prime .....	\$ 285,022	\$ 379,845
Alt-A and A minus and below .....	170,873	249,659
IBNR and other (1) .....	16,021	71,107
LAE .....	13,349	18,630
Reinsurance recoverable (2) .....	8,315	6,816
Total primary reserves .....	<u>493,580</u>	<u>726,057</u>
Pool .....	12,794	31,853
IBNR and other .....	278	673
LAE .....	356	932
Reinsurance recoverable (2) .....	35	35
Total pool reserves .....	<u>13,463</u>	<u>33,493</u>
Total First-lien reserves .....	<u>507,043</u>	<u>759,550</u>
Other (3) .....	545	719
Total reserve for losses .....	<u>\$ 507,588</u>	<u>\$ 760,269</u>

- (1) At December 31, 2016, primarily related to expected payments under the Freddie Mac Agreement. During the third quarter of 2017, the scheduled final settlement date under the Freddie Mac Agreement occurred and therefore, except for loans with loss mitigation and claims activity already in process, most of the loans subject to the Freddie Mac Agreement were removed from RIF and IIF because the insurance no longer remains in force. See “—Agreements—*Freddie Mac Agreement*,” below for additional information.
- (2) Represents ceded losses on captive reinsurance transactions, the QSR Transactions and the 2016 Single Premium QSR Transaction.
- (3) Does not include our second-lien mortgage loan PDR that is included in other liabilities.

For the periods indicated, the following table presents information relating to our reserve for losses, including our IBNR reserve and LAE, but excluding our second-lien mortgage loan PDR:

<u>(In thousands)</u>	Year Ended December 31,		
	2017	2016	2015
Balance at January 1, . . . . .	\$ 760,269	\$ 976,399	\$ 1,560,032
Less: Reinsurance recoverables (1). . . . .	6,851	8,286	26,665
Balance at January 1, net of reinsurance recoverables . . . . .	753,418	968,113	1,533,367
Add: Losses and LAE incurred in respect of default notices reported and unreported in:			
Current year (2) . . . . .	185,486	206,383	229,061
Prior years. . . . .	(49,286)	(3,516)	(29,647)
Total incurred. . . . .	136,200	202,867	199,414
Deduct: Paid claims and LAE related to:			
Current year (2) . . . . .	25,011	11,410	10,837
Prior years. . . . .	365,369	406,152	753,831
Total paid . . . . .	390,380 <sup>(3)</sup>	417,562	764,668
Balance at end of period, net of reinsurance recoverables. . . . .	499,238	753,418	968,113
Add: reinsurance recoverables (1). . . . .	8,350	6,851	8,286
Balance at December 31, . . . . .	<u>\$ 507,588</u>	<u>\$ 760,269</u>	<u>\$ 976,399</u>

- (1) Related to ceded losses recoverable, if any, on captive reinsurance transactions, the QSR Transactions and the 2016 Single Premium QSR Transaction. See Note 8 for additional information.
- (2) Related to underlying defaulted loans with a most recent default notice dated in the year indicated. For example, if a loan had defaulted in a prior year, but then subsequently cured and later re-defaulted in the current year, that default would be considered a current year default. For 2017, includes payments made on pool commutations, in some cases for loans not previously in default.
- (3) Includes the payment of \$54.8 million made in connection with the scheduled settlement of the Freddie Mac Agreement in the third quarter of 2017.

## Reserve Activity

### 2017 Activity

Our loss reserves at December 31, 2017 declined as compared to December 31, 2016, primarily as a result of the amount of paid claims and Cures continuing to outpace losses incurred related to new default notices reported in the current year. Reserves established for new default notices were the primary driver of our total incurred loss for 2017, and they were primarily impacted by the number of new primary default notices received in the period and our related gross Default to Claim Rate assumption applied to those new defaults, which, except as discussed below for FEMA Designated Areas associated with Hurricanes Harvey and Irma, declined from 12% at December 31, 2016 to 10% at December 31, 2017. The provision for losses during 2017 was positively impacted by favorable reserve development on prior year defaults, which was primarily driven by a reduction during the period in certain Default to Claim Rate assumptions for these prior year defaults compared to the assumptions used at December 31, 2016. The reductions in Default to Claim Rate assumptions resulted from observed trends, primarily higher Cures than were previously estimated.

During the third quarter of 2017, Hurricanes Harvey and Irma caused extensive property damage to areas of Texas, Florida and Georgia, as well as other general disruptions including power outages and flooding. At December 31, 2017, our total primary mortgage insurance exposure to mortgages in counties affected by these storms and subsequently designated as FEMA Designated Areas is approximately \$4.6 billion of RIF on approximately \$17.4 billion of IIF. This exposure represents approximately 9% of our primary mortgage insurance RIF as of December 31, 2017. Although the mortgage insurance we write protects the lenders from a portion of losses resulting from loan defaults, it does not provide protection against property loss or physical damage. Our Master Policies contain an exclusion against physical damage, including damage caused by floods or other natural disasters. Depending on the policy form and circumstances, we may, among other things, deduct the cost to repair or remedy physical damage above a de minimis amount from a claim payment and/or, under certain circumstances, deny a claim where (i) the property underlying a mortgage in default is subject to unrestored physical damage or (ii) the physical damage is deemed to be the principal cause of default. While we observed an increase in new primary defaults from FEMA Designated Areas associated with Hurricanes Harvey and Irma following those two natural disasters, we expect most of these to cure within the next 12 months, and at rates higher than our general population of defaults. We therefore assigned a 3% Default to Claim Rate assumption to the new primary defaults from FEMA Designated Areas associated with Hurricanes Harvey and Irma that were reported subsequent to those two natural disasters. These incremental defaults did not have a material impact on our provision for losses as of December 31, 2017. However, the future reserve impact may be affected by various factors, including the pace of economic recovery in the FEMA Designated Areas.

Total claims paid decreased for 2017, compared to 2016, consistent with the ongoing decline in outstanding default inventory, partially offset by payments that, as expected, were made in connection with the final settlement of the Freddie Mac Agreement in the third quarter of 2017. See “—Agreements—*Freddie Mac Agreement*” below for additional information.

#### **2016 Activity**

Our loss reserves at December 31, 2016 declined as compared to December 31, 2015, primarily as a result of the amount of paid claims continuing to exceed losses incurred related to new default notices reported in the current year. Reserves established for new default notices were the primary driver of our total incurred loss for 2016, and they were impacted primarily by the number of new primary default notices received in the period and our related gross Default to Claim Rate assumption applied to those new defaults, which declined from 13% at December 31, 2015 to 12% as of December 31, 2016. The impact to incurred losses from reserve development on default notices reported in prior years was not significant during 2016.

Total claims paid decreased for 2016 compared to 2015, primarily due to the elevated claim payments in 2015 associated with the BofA Settlement Agreement (discussed below).

#### **2015 Activity**

Our loss reserve declined in 2015 from December 31, 2014, primarily as a result of the volume of paid claims, Cures and Rescissions and Claim Denials having exceeded new default notices received. During the year ended December 31, 2015, we reduced our gross Default to Claim Rate assumption for new primary defaults from 16% to 13%, based on continued improvement observed in actual claim development trends. Favorable reserve development on prior year defaults partially mitigated the provision for losses from new default notices received in 2015. The \$29.6 million favorable development on prior year defaults observed in 2015 was driven primarily by a decrease in our actual and estimated Default to Claim Rate assumptions on prior year defaults, as a result of higher Cures than were previously estimated, partially offset by a decline in our estimates for future Rescissions and Claim Denials.

## Reserve Assumptions

### *Default to Claim Rate*

Our aggregate weighted-average Default to Claim Rate assumption (net of Claim Denials and Rescissions) used in estimating our primary reserve for losses was 31% (29% excluding pending claims) at December 31, 2017 compared to 42% (40% excluding pending claims) at December 31, 2016. The change in our Default to Claim Rate in 2017 resulted primarily from: (i) the lower Default to Claim Rate of 3% on new primary defaults in FEMA Designated Areas associated with Hurricanes Harvey and Irma subsequent to those two natural disasters; (ii) a decrease in the proportion of pending claims, which have higher Default to Claim Rates; and (iii) a decrease in the assumed gross Default to Claim Rate for new primary defaults that were not located in FEMA Designated Areas associated with Hurricanes Harvey and Irma, from 12% to 10%, as of December 31, 2017. As of December 31, 2017, with the exception of new primary defaults in FEMA Designated Areas associated with Hurricanes Harvey and Irma, our gross Default to Claim Rates on our primary portfolio ranged from 10% for new defaults, to 62% for other defaults not in Foreclosure Stage, and 81% for Foreclosure Stage Defaults. As of December 31, 2016, these gross Default to Claim Rates ranged from 12% for new defaults, to 62% for other defaults not in Foreclosure Stage, and 81% for Foreclosure Stage Defaults. Our Default to Claim Rate estimates on defaulted loans are mainly developed based on the Stage of Default and Time in Default of the underlying defaulted loans grouped according to the period in which the default occurred, as measured by the progress toward foreclosure sale and the number of months in default. Our estimate of expected Rescissions and Claim Denials (net of expected Reinstatements) embedded in our estimated Default to Claim Rate is generally based on our recent experience. Consideration is also given for differences in characteristics between those rescinded policies and denied claims and the loans remaining in our defaulted inventory.

### *Loss Mitigation*

Although our estimates of future Loss Mitigation Activities have been declining, they remain elevated compared to levels experienced before 2009. The elevated levels of our rate of Rescissions, Claim Denials and Claim Curtailments have significantly reduced our paid losses and have resulted in a reduction in our loss reserve. Our estimate of net future Loss Mitigation Activities reduced our loss reserve as of December 31, 2017 and 2016 by approximately \$21 million and \$39 million, respectively. The amount of estimated Loss Mitigation Activities incorporated into our reserve analysis at any point in time is affected by a number of factors, including not only our estimated rate of Rescissions, Claim Denials and Claim Curtailments on future claims, but also the volume and attributes of our defaulted insured loans, our estimated Default to Claim Rate and our estimated Claim Severity, among other assumptions.

As our Legacy Portfolio has become a smaller percentage of our overall insured portfolio, we have undertaken a reduced amount of Loss Mitigation Activity with respect to the claims we receive, and we expect this trend to continue. As a result, our future Loss Mitigation Activity is not expected to mitigate our paid losses to the same extent as in recent years.

Our reported Rescission, Claim Denial and Claim Curtailment activity in any given period is subject to challenge by our lender and servicer customers. We expect that a portion of previous Rescissions will be reinstated and previous Claim Denials will be resubmitted with the required documentation and ultimately paid; therefore, we have incorporated this expectation into our IBNR reserve estimate. Our IBNR reserve estimate of \$10.4 million and \$14.3 million at December 31, 2017 and 2016, respectively, includes reserves for this activity.

We also accrue for the premiums that we expect to refund to our lender customers in connection with our estimated Rescissions.

### *Sensitivity Analysis*

We considered the sensitivity of first-lien loss reserve estimates at December 31, 2017 by assessing the potential changes resulting from a parallel shift in Claim Severity and Default to Claim Rate estimates for primary loans. For example, assuming all other factors remain constant, for every one percentage point change in primary Claim Severity (which we estimate to be 97.6% of risk exposure at December 31, 2017), we estimated that our loss reserves would change by approximately \$4.8 million at December 31, 2017. Assuming all other factors remain constant, for every one percentage point change in our overall primary net Default to Claim Rate (which we estimate to be 31% at December 31, 2017, including our assumptions related to Rescissions and Claim Denials), we estimated a \$14.2 million change in our loss reserves at December 31, 2017.



## Agreements

### *BofA Settlement Agreement*

On September 16, 2014, Radian Guaranty entered into the BofA Settlement Agreement in order to resolve various actual and potential claims or disputes related to the parties' respective rights and duties as to mortgage insurance coverage on the specific population of loans covered by the agreement. Implementation of the BofA Settlement Agreement commenced on February 1, 2015 and cash payments under the BofA Settlement Agreement were effectively completed by December 31, 2015.

The BofA Settlement Agreement finalized claims decisions (including claims paid, coverage Rescissions, Claim Denials and Claim Curtailments) on certain loans covered by the agreement (communicated on or before certain dates prior to 2015), such that they are not subject to future challenge or adjustment. For claims decisions on certain other loans (communicated after those dates), the BofA Settlement Agreement limits both prior and future Rescissions, Claim Denials or Claim Curtailments. Radian Guaranty further agreed not to assert any right to cancel coverage on certain loans for failure to initiate certain proceedings (most commonly foreclosure proceedings) within the timelines set forth in the applicable Master Policies. We do not expect a material impact to our results of operations from this agreement in the future.

### *Freddie Mac Agreement*

In August 2013, Radian Guaranty entered into the Freddie Mac Agreement, related to a group of first-lien mortgage loans guaranteed by Freddie Mac that were insured by Radian Guaranty and were in default as of December 31, 2011. At December 31, 2016, Radian Guaranty had \$63.9 million in a collateral account invested in and classified as part of our trading securities and pledged to cover Loss Mitigation Activity on the loans subject to the Freddie Mac Agreement. During the third quarter of 2017, the scheduled final settlement date under the Freddie Mac Agreement occurred and, as expected, we paid \$54.8 million to Freddie Mac, which reduced the remaining balance in the collateral account to \$5.6 million at December 31, 2017. These amounts were invested in and classified as short-term investments and pledged to cover Loss Mitigation Activity and pending claims activity already in process but not yet finalized.

**Additional Disclosures**

The following tables provide information as of and for the periods indicated about: (i) incurred losses, net of reinsurance; (ii) the total of IBNR liabilities plus expected development on reported claims, included within the net incurred loss amounts; (iii) the cumulative number of reported defaults; and (iv) cumulative paid claims, net of reinsurance. The default year represents the period that a new default notice is first reported to us by loan servicers, related to borrowers that missed two monthly payments.

The information about net incurred losses and paid claims development for the years ended prior to 2017 is presented as supplementary information.

<b>Incurred Losses, Net of Reinsurance</b>											<b>As of December 31, 2017</b>	
<b>Year Ended December 31,</b>												
<b>Unaudited</b>												
<b>(\$ in thousands)</b>											<b>Total of IBNR Liabilities Plus Expected Development on Reported Claims (1)</b>	<b>Cumulative Number of Reported Defaults (2)</b>
<b>Default Year</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>		
<b>2008</b>	\$ 1,957,510	\$ 1,715,144	\$ 1,969,581	\$ 2,009,551	\$ 2,018,794	\$ 2,074,295	\$ 2,088,719	\$ 2,110,922	\$ 2,115,083	\$ 2,122,647	\$ 2,370	215,837
<b>2009</b>		1,671,239	1,894,783	1,930,263	1,939,479	1,974,568	1,991,796	2,016,412	2,018,907	2,022,629	1,535	213,836
<b>2010</b>			1,102,856	1,215,136	1,192,482	1,195,056	1,207,774	1,220,289	1,218,264	1,219,469	958	146,324
<b>2011</b>				1,058,625	1,152,016	1,052,277	1,050,555	1,062,579	1,061,161	1,059,116	904	118,972
<b>2012</b>					803,831	763,969	711,213	720,502	715,646	714,783	756	89,845
<b>2013</b>						505,732	405,334	401,444	404,333	402,259	653	71,749
<b>2014</b>							337,784	247,074	265,891	264,620	776	58,215
<b>2015</b>								222,555	198,186	178,042	874	49,825
<b>2016</b>									201,016	165,440	2,185	46,264
<b>2017</b>										180,851	2,672	47,283
									<b>Total</b>	<b>\$ 8,329,856</b>		

- (1) Represents reserves as of December 31, 2017 related to IBNR liabilities.
- (2) Represents total number of new default notices received in each calendar year as compiled monthly based on reports received from loan servicers. As reflected in our Default to Claim Rate assumptions, a significant portion of reported defaults generally do not result in a claim. In certain instances, a defaulted loan may cure, and then re-default in a later period. Consistent with our reserving practice, each new event of default is treated as a unique occurrence and therefore certain loans that cure and re-default may be included as a reported default in multiple periods. Included in this amount for the year ended December 31, 2017 and December 31, 2016 are 8,862 and 3,852 notices, respectively, of new primary defaults related to the FEMA Designated Areas associated with Hurricanes Harvey and Irma.

Cumulative Paid Claims, Net of Reinsurance										
Year Ended December 31,										
(In thousands)										
Default Year	Unaudited									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
2008	\$ 189,458	\$ 740,578	\$1,297,867	\$ 1,635,069	\$ 1,744,559	\$ 1,872,804	\$ 1,932,283	\$ 2,022,019	\$ 2,051,495	\$ 2,088,124
2009		136,413	619,496	1,236,210	1,471,264	1,711,019	1,807,031	1,921,134	1,958,660	1,986,076
2010			11,810	394,278	700,316	956,598	1,055,935	1,145,497	1,178,546	1,198,031
2011				40,392	323,216	756,820	892,959	982,830	1,016,855	1,038,582
2012					19,200	295,332	528,744	631,982	672,271	692,291
2013						34,504	191,040	307,361	357,087	379,036
2014							13,108	115,852	200,422	233,607
2015								10,479	84,271	142,421
2016									11,061	76,616
2017										24,653
									Total	\$ 7,859,437
									All outstanding liabilities before 2008, net of reinsurance	15,492
									Liabilities for claims, net of reinsurance (1)	\$ 485,911

(1) Calculated as follows:

(In thousands)	
Incurring losses, net of reinsurance . . . . .	\$ 8,329,856
Add: All outstanding liabilities before 2008, net of reinsurance . . . . .	15,492
Less: Cumulative paid claims, net of reinsurance . . . . .	7,859,437
Liabilities for claims, net of reinsurance . . . . .	<u>\$ 485,911</u>

The following table provides a reconciliation of the net incurred losses and paid claims development tables above to the reserve for losses and LAE in the consolidated balance sheet at December 31, 2017:

(In thousands)	December 31, 2017
Net outstanding liabilities - Mortgage Insurance:	
Reserve for losses and LAE, net of reinsurance . . . . .	\$ 485,911
Reinsurance recoverables on unpaid claims . . . . .	8,350
Unallocated LAE . . . . .	13,327
Total gross reserve for losses and LAE . . . . .	<u>\$ 507,588</u>

The following is supplementary information about average historical claims duration as of December 31, 2017, representing the average distribution of when claims are paid relative to the year of default:

Years	Average Annual Percentage Payout of Incurred Losses by Age, Net of Reinsurance (Unaudited)									
	1	2	3	4	5	6	7	8	9	10
Mortgage Insurance . . . . .	6.3%	33.9%	31.1%	14.4%	7.5%	4.8%	3.3%	2.6%	1.4%	1.7%

## 12. Long-Term Debt

The carrying value of our long-term debt at December 31, 2017 and 2016 was as follows:

(\$ in thousands)		December 31,	
		2017	2016
5.500%	Senior Notes due 2019 . . . . .	\$ 157,636	\$ 296,907
5.250%	Senior Notes due 2020 . . . . .	231,834	345,308
7.000%	Senior Notes due 2021 . . . . .	195,146	344,362
4.500%	Senior Notes due 2024 . . . . .	442,458	—
3.000%	Convertible Senior Notes due 2017 . . . . .	—	20,947
2.250%	Convertible Senior Notes due 2019 . . . . .	—	62,013
	Total long-term debt . . . . .	<u>\$ 1,027,074</u>	<u>\$ 1,069,537</u>

### Extinguishment of Debt

#### 2017 Activity

*Repurchases of Senior Notes due 2019, 2020 and 2021.* During the third quarter of 2017, pursuant to cash tender offers, we purchased aggregate principal amounts of \$141.4 million, \$115.9 million and \$152.3 million of our Senior Notes due 2019, 2020 and 2021, respectively. We funded the purchases with \$450.8 million in cash (plus accrued and unpaid interest due on the purchased notes). These purchases resulted in a loss on induced conversion and debt extinguishment of \$45.8 million. At December 31, 2017, the remaining principal amounts of our outstanding Senior Notes due 2019, 2020 and 2021 were \$158.6 million, \$234.1 million and \$197.7 million, respectively.

*Repurchases of Convertible Senior Notes due 2017.* During the second quarter of 2017, we purchased an aggregate principal amount of \$21.6 million of our outstanding Convertible Senior Notes due 2017. We funded the purchases with \$31.6 million in cash (plus accrued and unpaid interest due on the purchased notes). These purchases of Convertible Senior Notes due 2017 resulted in a loss on induced conversion and debt extinguishment of \$1.2 million.

In connection with our purchases of Convertible Senior Notes due 2017, we terminated a corresponding portion of the capped call transactions we entered into in 2010 related to the initial issuance of the Convertible Senior Notes due 2017. We received proceeds of \$4.1 million for this termination.

*Conversion of Convertible Senior Notes due 2019.* In November 2016, we announced our intent to exercise our redemption option for the remaining \$68.0 million aggregate principal amount of our Convertible Senior Notes due 2019. As a result of the average closing price of our common stock exceeding the conversion price of \$10.60 prior to the redemption date, all of the holders of these notes elected to exercise their conversion rights. Radian elected to settle all of the notes surrendered for conversion with cash. We settled our obligations with respect to these conversions on January 27, 2017, with a cash payment of \$110.1 million. At the time of settlement, this transaction resulted in a pretax charge of \$4.5 million, representing the difference between the fair value and the carrying value, net of unamortized issuance costs, of the liability component of the Convertible Senior Notes due 2019. This transaction also resulted in an aggregate decrease as of the settlement date of 6.4 million diluted shares for the purposes of determining diluted net income per share.

### 2016 Activity

*Repurchases of Convertible Senior Notes due 2017 and 2019.* During 2016, we entered into privately negotiated agreements to purchase, for cash or a combination of cash and shares of Radian Group common stock, aggregate principal amounts of \$30.1 million and \$322.0 million, respectively, of our outstanding Convertible Senior Notes due 2017 and 2019. We funded the purchases with \$235.0 million in cash (plus accrued and unpaid interest due on the purchased notes) and by issuing to certain of the sellers 17.0 million shares of Radian Group common stock. These purchases of Convertible Senior Notes due 2017 and 2019 resulted in a pretax charge of \$60.1 million. This loss represents:

- the \$41.8 million market premium representing the excess of the fair value of the total consideration delivered to the sellers of the Convertible Senior Notes due 2017 and 2019 over the fair value of the common stock issuable pursuant to the original conversion terms of the purchased notes;
- the \$17.2 million difference between the fair value and the carrying value, net of unamortized issuance costs, of the liability component of the purchased notes; and
- the \$1.1 million impact of related transaction costs.

In connection with our privately negotiated purchases of Convertible Senior Notes due 2017 in March 2016, we terminated a corresponding portion of the capped call transactions we had entered into in 2010 related to the initial issuance of the Convertible Senior Notes due 2017. As a result of this termination, we received consideration of 0.2 million shares of Radian Group common stock, which was valued at \$2.6 million based on a stock price on the closing date of \$11.86. In accordance with the accounting standards regarding equity and contracts in an entity's own equity, the total consideration received was recorded as an increase to additional paid-in capital. The shares of Radian Group common stock received were retired, resulting in a decrease in shares issued and outstanding and a corresponding increase in unissued shares.

*Redemption of Senior Notes due 2017.* On August 12, 2016, we redeemed the remaining \$195.5 million aggregate principal amount of our Senior Notes due 2017 for the price established in accordance with the indenture governing the notes. We paid \$211.3 million in cash (including accrued interest through the redemption date) to holders of the notes at redemption and recorded a loss on debt extinguishment of \$15.0 million.

### 2015 Activity

*Repurchase of Convertible Senior Notes due 2017.* In June 2015, we entered into privately negotiated agreements with certain holders of our Convertible Senior Notes due 2017 to purchase an aggregate principal amount of \$389.1 million of our outstanding Convertible Senior Notes due 2017 for a combination of cash and shares of Radian Group common stock. We funded the purchases with \$126.8 million in cash (plus accrued and unpaid interest due on the purchased notes) and by issuing to the sellers 28.4 million shares of Radian Group common stock. These purchases of Convertible Senior Notes due 2017 resulted in a pretax charge of \$91.9 million.

In connection with our June 2015 purchases of our Convertible Senior Notes due 2017, we terminated a corresponding portion of the capped call transactions we had entered into in 2010 related to the initial issuance of the Convertible Senior Notes due 2017. As a result of this termination, we received total consideration of \$54.9 million, consisting of 2.3 million shares of Radian Group common stock and \$13.2 million in cash. In accordance with the accounting standards regarding equity and contracts in an entity's own equity, the total consideration received was recorded as an increase to additional paid-in capital. The shares of Radian Group common stock received were retired, resulting in a decrease in shares issued and outstanding and a corresponding increase in unissued shares.

### Senior Notes

*Senior Notes due 2019.* In May 2014, in anticipation of the Clayton acquisition, we issued \$300 million principal amount of Senior Notes due 2019 and received net proceeds of \$293.8 million. These notes mature on June 1, 2019 and bear interest at a rate of 5.500% per annum, payable semi-annually on June 1 and December 1 of each year, commencing on December 1, 2014.

*Senior Notes due 2020.* In June 2015, we issued \$350 million aggregate principal amount of Senior Notes due 2020 and received net proceeds of \$343.3 million. These notes mature on June 15, 2020 and bear interest at a rate of 5.250% per annum, payable semi-annually on June 15 and December 15 of each year, commencing on December 15, 2015.

*Senior Notes due 2021.* In March 2016, we issued \$350 million aggregate principal amount of Senior Notes due 2021 and received net proceeds of \$343.4 million. These notes mature on March 15, 2021 and bear interest at a rate of 7.000% per annum, payable semi-annually on March 15 and September 15 of each year, commencing on September 15, 2016.

*Senior Notes due 2024.* In September 2017, we issued \$450 million aggregate principal amount of Senior Notes due 2024 and received net proceeds of \$442.2 million. These notes mature on October 1, 2024 and bear interest at a rate of 4.500% per annum, payable semi-annually on April 1 and October 1 of each year, with interest payments commencing on April 1, 2018.

*Redemption Terms in Senior Notes.* We have the option to redeem the Senior Notes due 2019, 2020, 2021 and 2024 in whole or in part, at any time or from time to time prior to maturity, at a redemption price equal to the greater of: (i) 100% of the aggregate principal amount of the notes to be redeemed or (ii) a “make-whole amount,” which is the sum of the present values of the remaining scheduled payments of principal and interest (excluding any portion of interest accrued to the redemption date) in respect of the notes to be redeemed, discounted to the redemption date at the applicable treasury rate plus 50 basis points, plus, in each case, accrued and unpaid interest thereon to, but excluding, the redemption date.

*Covenants in Senior Notes.* The Senior Notes due 2019, 2020, 2021 and 2024 have covenants customary for securities of this nature, including covenants related to the payments of the notes, reports, compliance certificates and modification of the covenants. Additionally, the applicable indentures include covenants restricting us from encumbering the capital stock of a designated subsidiary (as defined in the respective indentures for the notes) or disposing of any capital stock of any designated subsidiary unless either all of the stock is disposed of or we retain more than 80% of the stock.

#### Convertible Senior Notes due 2017 and 2019

Upon the original issuance of the Convertible Senior Notes due 2017 and 2019, in accordance with accounting standards related to convertible debt instruments that may be settled in cash upon conversion, the Company recorded pretax equity components, net of the capped call transaction (with respect to the Convertible Senior Notes due 2017) and related issuance costs (with respect to the Convertible Senior Notes due 2017 and 2019). Upon the elimination of the outstanding principal amounts of the Convertible Senior Notes due 2017 and 2019, the associated pretax equity components of \$5.0 million and \$13.1 million at December 31, 2016, respectively, were eliminated.

Issuance and transaction costs incurred at the time of the issuance of the convertible notes were allocated to the liability and equity components in proportion to the allocation of proceeds and accounted for as debt issuance costs and equity issuance costs, respectively. The convertible notes are reflected on our consolidated balance sheets as follows:

(In thousands)	Convertible Senior Notes due 2017		Convertible Senior Notes due 2019	
	December 31,		December 31,	
	2017	2016	2017	2016
Liability component:				
Principal	\$ —	\$ 22,233	\$ —	\$ 68,024
Debt discount, net (1)	—	(1,221)	—	(5,461)
Debt issuance costs (1)	—	(65)	—	(550)
Net carrying amount	\$ —	\$ 20,947	\$ —	\$ 62,013

(1) Included within long-term debt and is being amortized over the life of the convertible notes.



The following table sets forth total interest expense recognized related to the convertible notes for the periods indicated:

	Convertible Senior Notes due 2017		Convertible Senior Notes due 2019	
	December 31,		December 31,	
	2017	2016	2017	2016
<b>(In thousands)</b>				
Contractual interest expense (1) . . . . .	\$ 310	\$ 872	\$ (510)	\$ 3,426
Amortization of debt discount . . . . .	619	1,674	163	5,016
Amortization of debt issuance costs . . . . .	33	88	16	505
Total interest expense (1) . . . . .	\$ 962	\$ 2,634	\$ (331)	\$ 8,947

(1) Interest expense (benefit) represents expense incurred, net of adjustments to accruals previously recorded.

### Revolving Credit Facility

On October 16, 2017, Radian Group entered into a three-year, \$225 million unsecured revolving credit facility with a syndicate of bank lenders. Terms of the credit facility include an option to increase the amount during the term of the agreement, subject to our obtaining the necessary increased commitments from the lenders, up to a total of \$300 million. Borrowings under the credit facility may be used for working capital and general corporate purposes, including, without limitation, capital contributions to Radian Group’s insurance and reinsurance subsidiaries as well as growth initiatives.

Any borrowings outstanding under the facility will accrue interest at a floating rate tied to a standard short-term borrowing index, selected at our option, plus an applicable margin. A commitment fee is due quarterly on the average daily amount of the undrawn commitment. The applicable margin and commitment fee vary based on the senior unsecured long-term debt rating of Radian Group.

The credit facility contains customary representations, warranties, covenants, terms and conditions. Our ability to borrow under the credit facility is conditioned on the satisfaction of certain financial and other covenants, including covenants related to minimum net worth and statutory surplus, a maximum debt-to-capitalization level, limits on certain types of indebtedness and liens, minimum liquidity levels and Radian Guaranty’s eligibility as a private mortgage insurer with the GSEs. At December 31, 2017, Radian Group was in compliance with all the covenants, although there were no amounts outstanding under this revolving credit facility.

### 13. Commitments and Contingencies

#### Legal Proceedings

We are routinely involved in a number of legal and regulatory claims, assertions, actions, reviews, audits, inquiries and investigations by various regulatory entities involving compliance with laws or other regulations, the outcome of which are uncertain. These legal proceedings could result in adverse judgments, settlements, fines, injunctions, restitutions or other relief that could require significant expenditures or have other effects on our business. In accordance with applicable accounting standards and guidance, we establish accruals only when we determine both that it is probable that a loss has been incurred and the amount of the loss is reasonably estimable. We accrue the amount that represents our best estimate of the probable loss; however, if we can only determine a range of estimated losses, we accrue an amount within the range that, in our judgment, reflects the most likely outcome, and if none of the estimates within the range is more likely, we accrue the minimum amount of the range.

In the course of our regular review of pending legal and regulatory matters, we determine whether it is reasonably possible that a potential loss may have a material impact on our liquidity, results of operations or financial condition. If we determine such a loss is reasonably possible, we disclose information relating to such potential loss, including an estimate or range of loss or a statement that such an estimate cannot be made. On a quarterly basis, we review relevant information with respect to loss contingencies and update our accruals, disclosures and estimates of reasonably possible losses or range of losses based on such reviews. We are often unable to estimate the possible loss or range of loss until developments in such matters have provided sufficient information to support an assessment of the range of possible loss, such as quantification of a damage demand from plaintiffs, discovery from other parties and investigation of factual allegations, rulings by the court on motions or appeals, analysis by experts, and the progress of settlement negotiations. In addition, we generally make no disclosures for loss contingencies that are determined to be remote. For matters for which we disclose an estimated loss, the disclosed estimate reflects the reasonably possible loss or range of loss in excess of the amount accrued, if any.

Loss estimates are inherently subjective, based on currently available information, and are subject to management's judgment and various assumptions. Due to the inherently subjective nature of these estimates and the uncertainty and unpredictability surrounding the outcome of legal and other proceedings, actual results may differ materially from any amounts that have been accrued.

As described in Note 10, on September 4, 2014 we received formal Notices of Deficiency from the IRS related to certain losses and deductions resulting from our investment in a portfolio of non-economic REMIC residual interests. We believe that an adequate provision for income taxes has been made for the potential liabilities that may result from this matter. However, if the ultimate resolution of this matter produces a result that differs materially from our current expectations, there could be a material impact on our effective tax rate, results of operations and cash flows.

On December 22, 2016, Ocwen Loan Servicing, LLC and Homeward Residential, Inc. (collectively, "Ocwen") filed a complaint against Radian Guaranty (the "Complaint"). Ocwen has also initiated legal proceedings against several other mortgage insurers. The action filed against Radian Guaranty, titled *Ocwen, et al. v. Radian Guaranty*, is pending in the U.S. District Court for the Eastern District of Pennsylvania (the "Court"). The Complaint alleged breach of contract and bad faith claims and sought monetary damages and declaratory relief regarding certain claims handling practices on future insurance claims. On December 17, 2016, Ocwen separately filed a parallel arbitration petition against Radian Guaranty (the "Petition") before the American Arbitration Association ("AAA") asserting substantially the same allegations as in the Complaint (the Complaint and the Petition are collectively referred to as the "Filings"). The Filings listed 9,420 mortgage insurance certificates ("Certificates") issued under multiple insurance policies, including Pool Insurance Policies, as subject to the dispute. On March 3, 2017, Radian Guaranty filed with the Court: (i) a motion to dismiss Ocwen's Complaint or, in the alternative, for a more definite statement and (ii) a motion to enjoin Ocwen's parallel arbitration. On June 5, 2017, Ocwen filed an Amended Complaint and an Amended Petition (collectively, the "Amended Filings") with the Court and the AAA, respectively, together listing 8,870 Certificates as subject to the dispute. In December 2017 and January 2018, Ocwen and Radian Guaranty filed motions for partial summary judgment in connection with a small number of bellwether certificates selected from the Certificates subject to the Court proceedings ("Bellwether Certificates"). On February 1, 2018, the Court issued an Order and Memorandum decision granting in part and denying in part both parties' motions for partial summary judgment, and ordering the parties to proceed to trial on certain claims regarding a portion of the Bellwether Certificates. The trial regarding a portion of the Bellwether Certificates is currently scheduled to start in April 2018. Radian Guaranty believes that Ocwen's allegations and claims in the legal proceedings described above are without merit and legally deficient, and plans to defend these claims vigorously. We are not able to estimate a reasonably possible loss, if any, or range of loss in this matter because of the preliminary stage of the proceedings.

We also are periodically subject to reviews and audits, as well as inquiries, information-gathering requests and investigations. In connection with these matters, from time to time we receive requests and subpoenas seeking information and documents related to aspects of our business. In March 2017, Green River Capital, a subsidiary of Clayton, received a letter from the staff of the SEC stating that it is conducting an investigation captioned, "In the Matter of Certain Single Family Rental Securitizations," and that it is requesting information from market participants. The letter requested that Green River Capital provide information regarding broker price opinions that Green River Capital provided on properties included in single family rental securitization transactions. Green River Capital is cooperating with the SEC.

Our Master Policies establish the timeline within which any suit or action arising from any right of an insured under the policy generally must be commenced. In general, any suit or action arising from any right of an insured under the policy must be commenced within two years after such right first arose for primary insurance and within three years for certain other policies, including certain Pool Insurance policies. Although we believe that our Loss Mitigation Activities are justified under our policies, we continue to face challenges from certain lender and servicer customers regarding our Loss Mitigation Activities, which have resulted in some reversals of our decisions regarding Rescissions, Claim Denials or Claim Curtailments. We are currently in discussions with these customers regarding Loss Mitigation Activities and our claim payment practices, which if not resolved, could result in arbitration or judicial proceedings and we may need to reassume the risk on, and increase loss reserves for, those policies or pay additional claims. See Note 11 for further information.

Further, there are loans in our total defaulted portfolio (in particular, our older defaulted portfolio) for which actions or proceedings (such as foreclosure that provide the insured with title to the property) may not have been commenced within the outermost deadline in our Prior Master Policy. We are evaluating these loans regarding this potential violation and our corresponding rights under the Prior Master Policy. While we can provide no assurance regarding the ultimate resolution of these issues, it is possible that arbitration or legal proceedings could result.

**Other**

Securities regulations became effective in 2005 that impose enhanced disclosure requirements on issuers of ABS (including mortgage-backed securities). To allow our customers to comply with these regulations at that time, we typically were required, depending on the amount of credit enhancement we were providing, to provide: (i) audited financial statements for the insurance subsidiary participating in the transaction or (ii) a full and unconditional holding company-level guarantee for our insurance subsidiaries' obligations in such transactions. Radian Group has guaranteed two structured transactions for Radian Guaranty involving approximately \$97.8 million of remaining credit exposure as of December 31, 2017.

We provide contract underwriting as an outsourced service to our customers. Under our current contract underwriting program the remedy we offer is limited indemnification to our contract underwriting customers only with respect to those loans that we simultaneously underwrite for both secondary market compliance and for potential mortgage insurance eligibility. In 2017, payments for losses related to contract underwriting remedies were de minimis. In 2017, our provision for contract underwriting expenses was de minimis and our reserve for contract underwriting obligations at December 31, 2017 was \$0.5 million. We monitor this risk and negotiate our underwriting fee structure and recourse agreements on a client-by-client basis. We also routinely audit the performance of our contract underwriters.

We lease office space for use in our operations. The lease agreements, which expire periodically through August 2032, contain provisions for scheduled periodic rent increases. Net rental expense in connection with these leases totaled \$5.7 million in 2017, \$5.0 million in 2016 and \$5.0 million in 2015, excluding the net rental expense related to discontinued operations. The commitment for non-cancelable operating leases in future years is as follows:

<u>(In thousands)</u>	
2018 .....	\$ 6,482
2019 .....	9,002
2020 .....	8,929
2021 .....	8,275
2022 .....	8,162
Thereafter .....	58,396
Total .....	<u>\$ 99,246</u>

At December 31, 2017, there were no future minimum receipts expected from sublease rental payments.

## 14. Capital Stock

### 2017 Activity

On June 29, 2016, Radian Group's board of directors authorized a share repurchase program to spend up to \$125 million to repurchase Radian Group common stock. In order to implement the program, Radian adopted a trading plan under Rule 10b5-1 of the Exchange Act during the third quarter of 2016. During the second quarter of 2017, 380 shares were purchased at an average price of \$15.59 per share, which represented the only purchases made under the plan. This share repurchase program expired on June 30, 2017.

On August 9, 2017, Radian Group's board of directors renewed its share repurchase program and authorized the Company to spend up to \$50 million to repurchase Radian Group common stock in the open market or in privately negotiated transactions, based on market and business conditions, stock price and other factors. Radian has established a trading plan under Rule 10b5-1 of the Exchange Act to implement the program. As of December 31, 2017, no shares had been purchased and therefore the full purchase authority of up to \$50 million remained available under this program, which expires on July 31, 2018.

### 2016 Activity

In the first quarter of 2016, we announced and completed a share repurchase program. Pursuant to this program, we purchased an aggregate of 9.4 million shares of Radian Group common stock for \$100.2 million, at a weighted-average price per share of \$10.62, including commissions. No further purchase authority remains under this share repurchase program.

As partial consideration for our March 2016 privately negotiated purchases of a portion of our Convertible Senior Notes due 2017 and 2019, we issued to the sellers 17.0 million shares of Radian Group common stock. In addition, in connection with our termination of the corresponding portion of the related capped call transactions, we received consideration of 0.2 million shares of Radian Group common stock. See Note 12 for additional information regarding these transactions.

All shares of Radian Group common stock that we received from the above transactions were retired, resulting in a decrease in shares issued and outstanding and a corresponding increase in unissued shares.

### 2015 Activity

As partial consideration for our June 2015 privately negotiated purchases of a portion of our Convertible Senior Notes due 2017, we issued to the sellers 28.4 million shares of Radian Group common stock. In addition, in partial consideration for our termination of the corresponding portion of the related capped call transactions, we received 2.3 million shares of Radian Group common stock. See Note 12 for additional information regarding these transactions.

On June 18, 2015, we authorized an accelerated share repurchase program to repurchase an aggregate of \$202 million of Radian Group common stock. Under the accelerated share repurchase program, the total number of shares ultimately delivered to Radian Group was based on the average of the daily volume-weighted-average price of Radian Group common stock during the term of the transaction, less a negotiated discount and subject to certain other adjustments pursuant to the terms and conditions of the program. During the three-month period ended June 30, 2015, 9.2 million shares were repurchased under this program. The counterparty delivered to Radian Group 1.8 million additional shares of Radian Group common stock at final settlement of the accelerated share repurchase program in August 2015, based on the calculated price of \$18.32 during the term of the transaction. The shares of Radian Group common stock received pursuant to the accelerated share repurchase and the termination of the capped call transactions were retired, resulting in a decrease in shares issued and outstanding and a corresponding increase in unissued shares. All share repurchases pursuant to the accelerated share repurchase program were funded in the second quarter of 2015 from the proceeds of the Senior Notes due 2020.

### Other Purchases

We may purchase shares on the open market to settle stock options exercised by employees and purchases under our Employee Stock Purchase Plan. Through December 31, 2017, from time to time we also purchased shares on the open market to fund certain 401(k) matches. In addition, upon the vesting of certain restricted stock awards under our equity compensation plans, we may withhold from such vested awards shares of our common stock to satisfy the tax liability of the award recipients.

## 15. Share-Based and Other Compensation Programs

On May 10, 2017, our stockholders approved the Amended and Restated Equity Compensation Plan, which amended and restated the 2014 Equity Plan by increasing the number of shares that may be issued under the plan and making certain other changes. In addition to the Amended and Restated Equity Compensation Plan, we also have awards outstanding under our 2008 Equity Plan and 1995 Equity Plan. The last awards granted pursuant to the 2008 and 1995 Equity Plans were granted in 2014 and 2008, respectively. All awards granted under the Equity Plans have been performance-based or time-vested awards in the form of non-qualified stock options, restricted stock, RSUs, phantom stock, or SARs. The maximum contractual term for all awards under the Equity Plans is 10 years, although awards have been granted with shorter terms.

The Amended and Restated Equity Compensation Plan authorizes the issuance of up to 8,954,109 shares, plus such number of shares of common stock subject to awards outstanding under the Amended and Restated Equity Compensation Plan and the 2008 Equity Plan that subsequently terminate, expire or are cancelled and become available for issuance under the Amended and Restated Equity Compensation Plan (“Prior Plan Shares”). There were 8,851,531 shares available for grant under the Amended and Restated Equity Compensation Plan as of December 31, 2017 (the “share reserve”), which includes Prior Plan Shares. Each grant of restricted stock, RSUs, or performance share awards under the Amended and Restated Equity Compensation Plan (other than those settled in cash) reduces the share reserve available for grant under the Amended and Restated Equity Compensation Plan by 1.31 shares for every share subject to such grant. Absent this share reserve adjustment for outstanding restricted stock, RSUs, phantom stock or performance share awards, our shares remaining available for grant under the Amended and Restated Equity Compensation Plan would have been 11,691,367 shares as of December 31, 2017. Awards under the Amended and Restated Equity Compensation Plan that provide for settlement solely in cash (and not common shares) do not count against the share reserve.

Most awards vest at the end of the performance or service period. In the event of a grantee’s death or disability, awards generally vest immediately. Upon retirement, awards generally vest immediately or at the end of the performance period, if any. Awards granted under the Equity Plans to officers provide for “double trigger” vesting in the event of a change of control, meaning that awards will vest in connection with a change of control only in the event the grantee’s employment is terminated by us without cause or the grantee terminates employment for “good reason,” in each case within 90 days before or one year after the change of control. In the event of a hypothetical change of control as of December 31, 2017, we estimate that the vesting of awards, assuming for purposes of this hypothetical that “double trigger” vesting occurred, would have resulted in a pretax accounting charge to us of approximately \$10.2 million, representing the acceleration of compensation expense.

We use the Monte Carlo valuation model to determine the fair value of all cash-settled awards where stock price is a factor in determining the vesting, as well as for cash- or equity-settled performance awards where there exists a similar stock price-based market condition. The Monte Carlo valuation model incorporates multiple input variables, including expected life, volatility, risk-free rate of return and dividend yield for each award to estimate the probability that a vesting condition will be achieved. In determining these assumptions for the Monte Carlo valuations, we consider historic and observable market data.

Depending on certain characteristics of the awards granted under the various Equity Plans noted above, they are accounted for as either liabilities or equity instruments. The following table summarizes awards outstanding and compensation expense recognized for each type of share-based award as of and for the years ended:

(\$ in thousands)	December 31,					
	2017		2016		2015	
Share-Based Compensation Programs	Liability Recorded/ Equity Instruments Outstanding	Compensation Cost Recognized (1)	Liability Recorded/ Equity Instruments Outstanding	Compensation Cost Recognized (1)	Liability Recorded/ Equity Instruments Outstanding	Compensation Cost Recognized (1)
Liabilities:						
RSUs—Cash-Settled . . . . .	\$ —	\$ 1	\$ 18	\$ (718)	\$ 3,595	\$ 10,244
SARs—Cash-Settled . . . . .	—	—	—	—	—	159
Liabilities . . . . .	<u>\$ —</u>	<u>\$ 1</u>	<u>\$ 18</u>	<u>\$ (718)</u>	<u>\$ 3,595</u>	<u>\$ 10,403</u>
Equity:						
RSUs—Equity Settled . . . . .	3,434,976	12,206	3,208,454	13,285	2,472,861	9,243
Non-Qualified Stock Options . . . . .	1,692,743	851	2,839,738	3,286	2,692,457	2,984
Phantom Stock . . . . .	234,302	2	234,174	2	230,196	2
Employee Stock Purchase Plan . . . . .		432		449		396
Equity . . . . .		<u>13,491</u>		<u>17,022</u>		<u>12,625</u>
Total all share-based plans . . . . .		<u>\$ 13,492</u>		<u>\$ 16,304</u>		<u>\$ 23,028</u>

(1) For purposes of calculating compensation cost recognized, we generally consider awards effectively vested (and we recognize the full compensation costs) when grantees become retirement eligible.

The following table reflects additional information regarding all share-based awards for the years indicated:

(In thousands)	Year Ended December 31,		
	2017	2016	2015
Total compensation cost recognized . . . . .	\$ 13,492	\$ 16,304	\$ 23,028
Less: Costs deferred as acquisition costs . . . . .	269	206	500
Stock-based compensation expense . . . . .	<u>\$ 13,223</u>	<u>\$ 16,098</u>	<u>\$ 22,528</u>

**RSUs (Cash-Settled)**

*Performance-Based RSUs*— In 2012, a total of 2,211,640 performance-based RSUs (to be settled in cash) were granted to eligible officers under the 2008 Equity Plan. These performance-based RSUs entitled grantees to a cash amount equal to the fair market value of RSUs that vested at the end of a three-year performance period in 2015. Vesting of awards granted to both non-executives and executives in 2012 was dependent upon the performance of Radian Group’s total stockholder return (“TSR”) relative to the TSR of a performance peer group. Based on performance during the three-year performance period, grantees were entitled to a maximum payout of 200% of their target number of RSUs.

There were no cash-settled performance-based RSUs granted after 2012.



*Time-Vested RSUs*— At December 31, 2015, a total of 262,694 time-vested RSUs (to be settled in cash), originally granted to our non-employee directors during 2009 and 2010, remained outstanding. On February 10, 2016, these time-vested RSUs (to be settled in cash) were converted into time-vested RSUs to be settled in common stock. Upon the director’s termination of service with us, the non-employee director generally will be entitled to the equivalent number of shares of common stock.

**RSUs (Equity Settled)**

Information with regard to RSUs to be settled in stock for the periods indicated is as follows:

	Number of Shares	Weighted-Average Grant Date Fair Value
Unvested, December 31, 2016 . . . . .	3,208,454	\$ 12.08
Granted . . . . .	1,020,832	\$ 16.84
Vested . . . . .	(99,424)	\$ 14.39
Forfeited . . . . .	(694,886)	\$ 14.66
Unvested, December 31, 2017 . . . . .	3,434,976	\$ 12.90

*Performance-Based RSUs*—In 2017, 2016 and 2015, executive and non-executive officers were granted a total of 456,510; 701,110; and 499,740; respectively, of performance-based RSUs to be settled in common stock. The maximum payout at the end of the three-year performance period is 200% of a grantee’s target number of RSUs. The maximum payout for awards based on the TSR Measures described below is generally subject to a maximum cap of six times the value of the grantee’s award on the grant date.

The vesting of approximately 50% of the target performance-based RSUs granted to each executive officer in 2017 and 2016 is dependent upon (i) Radian Group’s TSR compared to the median TSR of a designated peer group of companies as of the date of grant (the “Relative TSR Measure”) and (ii) Radian Group’s absolute TSR (“Absolute TSR Measure,” and together with the Relative TSR Measure, the “TSR Measures”), in each case measured over a three-year performance period and subject to certain conditions. The remaining 50% of each executive officer’s target award will vest based on the cumulative growth in Radian’s book value per share, adjusted for certain defined items, over a three-year performance period. The vesting of performance-based RSUs granted to non-executives in 2017 is the same as described above for executive officers. The vesting of performance-based RSUs granted to non-executives in 2016 is entirely based on the TSR Measures described above and does not include a book value measure.

The vesting of performance-based RSU awards granted to executive officers and non-executives in 2015 is entirely dependent upon Radian Group’s TSR Measures, as described above.

The grant date fair value of the performance-based RSUs that are based on the cumulative growth in Radian’s book value per share is calculated based on the stock price as of the grant date, discounted for the lack of dividends earned over the vesting period and the one-year post-vesting holding period, as applicable. The compensation cost that is recognized over the remaining requisite service period is based on our expectations of the probable level of achievement of the performance condition.

The grant date fair value of the performance-based RSUs that are based on TSR Measures is determined using a Monte Carlo valuation model. The following are assumptions used in our calculation of the grant date fair value of performance-based RSUs to be settled in common stock:

	2017	2016	2015
Expected life . . . . .	3 years	3 years	3 years
Risk-free interest rate (1). . . . .	1.6%	0.9%	1.0%
Volatility of Radian’s stock (2) . . . . .	28.0%	29.7%	40.6%
Average volatility of peer companies (3) . . . . .	30.6%	38.2%	24.0%
Dividend yield . . . . .	0.06%	0.08%	0.05%
Discount rate (4) . . . . .	10.7%	10.7%	13.9%

- (1) The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant.
- (2) Volatility of Radian’s stock is used in the calculation of the grant date fair value of the portion of the awards based on TSR Measures, as described above. Volatility of Radian’s stock is not an applicable assumption for valuing the portion of the awards based on the cumulative growth in Radian’s book value per share. Volatility is determined at the date of grant using the historical share price volatility and the expected life of each award.
- (3) Average volatility of peer companies is used in the calculation of the grant date fair value of the portion of the awards based on the Relative TSR Measure, as described above.
- (4) A discount is applied to executive officer awards to reflect illiquidity during the one-year post-vesting holding period.

Also in 2017, 123,496 performance-based RSUs to be settled in common stock were granted to the Company’s former chief executive officer (“CEO”) pursuant to the terms of his retirement agreement. Vesting for these performance-based RSUs only occurs if a stock price hurdle is met during the performance period, which begins 10 days prior to the first anniversary of the grant date and ends on the fifth anniversary of the grant date, or upon the death of the grantee or a change in control of the Company. The stock price hurdle requires that the closing price of our common stock on the New York Stock Exchange equals or exceeds 120% of the grant date share price, or \$22.46, for 10 consecutive trading days during the performance period.

*Time-Vested RSUs*— Information with regard to grants of time-vested RSUs to be settled in common stock is as follows for the periods indicated:

	Year Ended December 31,		
	2017 (1)	2016 (2)	2015 (2)
Time-vested RSUs granted to certain executives and non-executive officers . . . . .	372,489	180,380	56,970
Time-vested RSUs granted to non-employee directors . . . . .	68,337	356,040 (3)	56,171
Total time-vested RSUs granted (4) . . . . .	440,826	536,420	113,141

- (1) The time-vested RSU awards granted in 2017 are scheduled to vest in: (i) pro rata installments on each of the first three anniversaries of the grant date or (ii) generally at the end of three years.
- (2) The time-vested RSU awards granted in 2016 and 2015 generally are subject to three-year cliff vesting.
- (3) Includes 262,694 time-vested awards granted on February 10, 2016 to convert the outstanding fully-vested 2009 and 2010 time-vested RSUs (to be settled in cash) awarded to our non-employee directors into time-vested RSUs to be settled in shares of our common stock on the conversion date (generally defined as a director’s termination of service with us).
- (4) The grant date fair value of time-vested RSUs was calculated based on the closing price of our common stock on the New York Stock Exchange on the date of grant, discounted for the lack of dividends earned over the vesting period, and is recognized as compensation expense over the service period.

### Non-Qualified Stock Options

Information with regard to stock options for the periods indicated is as follows:

<u>(\$ in thousands, except per-share amounts)</u>	Number of Shares	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding, December 31, 2016 . . . . .	2,839,738	\$ 7.64		
Granted . . . . .	—	\$ —		
Exercised . . . . .	(1,092,559)	\$ 6.53		
Forfeited . . . . .	(54,436)	\$ 13.79		
Expired . . . . .	—	\$ —		
Outstanding, December 31, 2017 . . . . .	<u>1,692,743</u>	<u>\$ 8.16</u>	<u>5.6</u>	<u>\$ 21,075</u>
Exercisable, December 31, 2017 . . . . .	<u>1,162,943</u>	<u>\$ 5.24</u>	<u>4.6</u>	<u>\$ 17,878</u>
Available for grant, December 31, 2017 . . . . .	<u>8,851,531</u>			

The following table summarizes additional information concerning stock option activity for the periods indicated:

<u>(\$ in thousands, except per-share amounts)</u>	Years Ended December 31,		
	2017	2016	2015
Granted (number of shares) . . . . .	—	342,090	212,230
Weighted-average grant date fair value per share (1) . . . . .	\$ —	\$ 9.72	\$ 14.68
Aggregate intrinsic value of options exercised . . . . .	\$ 14,389	\$ 1,519	\$ 7,146
Tax benefit of options exercised . . . . .	\$ 5,036	\$ 532	\$ 2,501
Cash received from options exercised . . . . .	\$ 7,131	\$ 717	\$ 1,285

- (1) We use the Monte Carlo valuation model in determining the grant date fair value of stock options issued to executives and non-executives using the assumptions noted in the following table:

	Year Ended December 31,	
	2016	2015
Derived service period (years) . . . . .	3.02 - 4.00	3.02 - 4.00
Risk-free interest rate (a) . . . . .	1.72%	2.32%
Volatility (b) . . . . .	94.20%	93.70%
Dividend yield . . . . .	0.08%	0.05%

(a) The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant.

(b) Volatility is determined at the date of grant using historical share price volatility and expected life of each award.

Upon the exercise of stock options, we generally issue shares from the authorized, unissued share reserves when the exercise price is less than the treasury stock repurchase price and from treasury stock when the exercise price is greater than the treasury stock repurchase price.

The following table summarizes information concerning outstanding and exercisable options at December 31, 2017:

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number Outstanding	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
\$2.45 - \$3.58	903,224	4.3	\$ 2.64	903,224	\$ 2.64
\$5.76 - \$7.06	17,676	0.2	\$ 7.06	17,676	\$ 7.06
\$10.42 - \$15.44	601,648	7.1	\$ 13.57	224,603	\$ 14.50
\$18.42	170,195	7.5	\$ 18.42	17,440	\$ 18.42
	<u>1,692,743</u>	<u>5.6</u>	<u>\$ 8.16</u>	<u>1,162,943</u>	<u>\$ 5.24</u>

Generally, the stock option awards have a four-year vesting period, with 50% of the award vesting on or after the third anniversary of the grant date and the remaining 50% of the award vesting on or after the fourth anniversary of the grant date, provided the applicable stock price performance hurdle is met, as described below. The fair value of stock options vested during the year ended December 31, 2017 was \$3.3 million.

There were no stock options granted in 2017. For stock option awards granted in 2016 and 2015, in addition to the time-based vesting requirements, the options contain a performance hurdle whereby the options will only vest if the closing price of our common stock on the New York Stock Exchange exceeds approximately \$15.20 and \$23.03 (in each case, 125% of the option exercise price), respectively, for 10 consecutive trading days ending on or after the third anniversary of the date of grant.

We elected to apply the short-cut method, under the accounting standard regarding share-based payment, to account for the windfall tax benefits that may result from the exercise of stock options. Effective January 1, 2017, upon the implementation of the update to the accounting standard regarding stock-based compensation, windfalls and shortfalls resulting from cancellations, expirations or exercises of stock options are reflected in the consolidated statements of operations as part of our income tax provision, as they occur. See Note 2.

### Employee Stock Purchase Plan

We have an Employee Stock Purchase Plan, the 2008 ESPP, under which 2,000,000 shares of our authorized but unissued common stock initially were reserved for issuance. Under the 2008 ESPP, we issued 105,476; 151,121; and 94,676 shares to employees during the years ended December 31, 2017, 2016 and 2015, respectively. In January 2018, we issued 52,464 shares from the shares available for issuance under our 2008 ESPP. As a result, 850,004 shares currently remain available for issuance under the 2008 ESPP.

The 2008 ESPP is designed to allow eligible employees to purchase shares of our common stock at a discount of 15% off the lower of the fair market value of our common stock at the beginning or end of a six month offering period (each period being the first and second six months in a calendar year).

The following assumptions were used in our calculation of Employee Stock Purchase Plan compensation expense during 2017:

	January 1, 2017	July 1, 2017
Expected life	6 months	6 months
Risk-free interest rate	1.04%	1.35%
Volatility	34.68%	29.37%
Dividend yield	0.06%	0.06%

### Unrecognized Compensation Expense

As of December 31, 2017, 2016 and 2015, unrecognized compensation expense related to the unvested portion of all of our share-based awards was \$16.3 million, \$11.3 million and \$11.7 million, respectively. Absent a change of control under the Equity Plans, this expense is expected to be recognized over a weighted-average period of approximately 2.1 years.

## 16. Benefit Plans

The Radian Group Inc. Savings Incentive Plan (“Savings Plan”) covers substantially all of our full-time and our part-time employees. Participants can contribute up to 100% of their base earnings as pretax and/or after-tax (Roth IRA) contributions up to a maximum amount of \$18,000 for 2017. The Savings Plan also includes a catch-up contribution provision whereby participants who are or will be age 50 and above during the Savings Plan year may contribute an additional contribution. The maximum catch-up contribution for the Savings Plan in 2017 was \$6,000. Effective January 1, 2016, we match up to 100% of the first 4.5% of base earnings contributed in any given year. Previously, the match was up to 100% of the first 6% of annual base earnings exclusive of Clayton, which had its own employee match of 25% of the first 6% of base earnings contributed in any given year. Beginning January 1, 2016, Clayton was merged into the Savings Plan. Our expense for matching funds for the years ended December 31, 2017, 2016 and 2015 was \$4.8 million, \$4.9 million and \$3.1 million, respectively.

Certain of the benefits of this plan are as follows:

- allows for the immediate eligibility of new hire participation and provides for the automatic enrollment of eligible employees;
- provides for the immediate vesting of matching contributions (including existing unvested matching contributions attributable to prior periods) and the elimination of all restrictions (other than Radian Group’s Insider Trading Policy) on a participant’s ability to diversify his/her position in matching contributions; and
- permits Radian Group to make discretionary, pro rata (based on eligible pay) cash allocations to each eligible participant’s account, with vesting upon completion of three years of service with us.

### *Other Contributions*

We contributed immaterial amounts to other postretirement benefit plans in 2017.

## 17. Accumulated Other Comprehensive Income (Loss)

The following table shows the rollforward of accumulated other comprehensive income (loss) as of the periods indicated:

<b>(In thousands)</b>	<b>Year Ended December 31, 2017</b>		
	<b>Before Tax</b>	<b>Tax Effect</b>	<b>Net of Tax</b>
Balance at beginning of period . . . . .	\$ (19,063)	\$ (6,668)	\$ (12,395)
Other comprehensive income (loss) (“OCI”):			
Unrealized gains (losses) on investments:			
Unrealized holding gains (losses) arising during the period . . . . .	46,235	14,332	31,903
Less: Reclassification adjustment for net gains (losses) included in net income (1) . . . . .	(4,065)	(1,423)	(2,642)
Net unrealized gains (losses) on investments . . . . .	50,300	15,755	34,545
Foreign currency translation adjustments:			
Unrealized foreign currency translation adjustments . . . . .	225	75	150
Less: Reclassification adjustment for liquidation of foreign subsidiary and other adjustments included in net income (2) . . . . .	(1,109)	(388)	(721)
Net foreign currency translation adjustments . . . . .	1,334	463	871
Net actuarial gains (losses) . . . . .	98	34	64
OCI . . . . .	51,732	16,252	35,480
Balance at end of period . . . . .	\$ 32,669	\$ 9,584	\$ 23,085





In 2015, we recorded total net income from discontinued operations of \$5.4 million related to this sale, including: (i) \$34.3 million of total revenue, primarily due to the recognition of investment gains previously deferred and recorded in accumulated other comprehensive income (loss) and recognized as a result of the completion of the sale; (ii) an impairment charge of \$14.3 million and (iii) taxes and adjustments to estimated transaction costs. The operating results of Radian Asset Assurance are classified as discontinued operations. No general corporate overhead or interest expense was allocated to discontinued operations.

## 19. Statutory Information

We prepare our statutory financial statements in accordance with the accounting practices required or permitted, if applicable, by the insurance departments of the respective states of domicile of our insurance subsidiaries. Required SAPP are established by a variety of NAIC publications, as well as state laws, regulations and general administrative rules. In addition, insurance departments have the right to permit other specific practices that may deviate from prescribed practices. As of December 31, 2017, we did not have any prescribed or permitted statutory accounting practices that resulted in reported statutory surplus or risk-based capital being different from what would have been reported had NAIC statutory accounting practices been followed.

Radian Group serves as the holding company for our insurance subsidiaries, through which we conduct our mortgage insurance business. These insurance subsidiaries are subject to comprehensive, detailed regulation by the insurance departments in the various states where our insurance subsidiaries are domiciled or licensed to transact business. Insurance laws vary from state to state, but generally grant broad supervisory powers to state agencies or officials to examine insurance companies and enforce rules or exercise discretion affecting almost every significant aspect of the insurance business, including the power to revoke or restrict an insurance company's ability to write new business. The state insurance regulations include various capital requirements and dividend restrictions based on our insurance subsidiaries' statutory financial position and results of operations, as described below. Our failure to maintain adequate levels of capital could lead to intervention by the various insurance regulatory authorities, which could materially and adversely affect our business, business prospects and financial condition. As of December 31, 2017, the amount of restricted net assets held by our consolidated insurance subsidiaries (which represents our equity investment in those insurance subsidiaries) totaled \$3.6 billion of our consolidated net assets.

The ability of Radian's insurance subsidiaries to pay dividends on their common stock is restricted by certain provisions of the insurance laws of Pennsylvania, their state of domicile. Under Pennsylvania's insurance laws, dividends and other distributions may only be paid out of an insurer's positive unassigned surplus, measured as of the end of the prior fiscal year, unless the Pennsylvania Insurance Commissioner approves the payment of dividends or other distributions from another source. In 2015 we effectuated a reorganization of our mortgage insurance subsidiaries, which included a significant redistribution of assets and RIF among our legal entities. As a result of these actions, substantially all of the RIF and assets previously held by Radian Guaranty Reinsurance, Radian Mortgage Assurance, Radian Insurance and Radian Mortgage Insurance were transferred to Radian Guaranty and Radian Reinsurance. None of the distributions from these entities were retained by Radian Group, as all proceeds were distributed to either Radian Guaranty or Radian Reinsurance.

On March 31, 2017, we reallocated \$175 million of capital, in the form of cash and marketable securities, from Radian Guaranty to Radian Reinsurance. The reallocation was accomplished by way of an Extraordinary Dividend, approved by the Pennsylvania Department of Insurance, from Radian Guaranty to Radian Group, and a simultaneous capital contribution from Radian Group to Radian Reinsurance in the same amount. These transactions resulted in a \$175 million decrease in Radian Guaranty's statutory policyholders' surplus (i.e., statutory capital and surplus) and a corresponding increase in Radian Reinsurance's statutory policyholders' surplus. Until September 30, 2017, the reallocation of capital had no impact on Radian Guaranty's Available Assets under the PMIERS, because Radian Reinsurance was considered an exclusive affiliated reinsurer of Radian Guaranty and, as such, Radian Guaranty's Available Assets and Minimum Required Assets were determined on an aggregate basis, taking into account the assets and insured risk of Radian Guaranty and any exclusive affiliated reinsurers. However, effective in the third quarter of 2017, Radian Reinsurance is no longer considered an exclusive affiliated reinsurer of Radian Guaranty, due to its participation in the credit risk transfer programs with Fannie Mae and Freddie Mac. Although this change impacted Radian Guaranty's Available Assets and Minimum Required Assets under the PMIERS, it did not affect Radian Guaranty's compliance with the PMIERS financial requirements.

At December 31, 2017, Radian Guaranty had negative unassigned surplus of \$765.0 million, compared to negative unassigned surplus of \$691.3 million at December 31, 2016. Radian Reinsurance, which began operations in December 2015, had negative unassigned surplus of \$112.1 million at December 31, 2017, compared to negative unassigned surplus of \$118.4 million at December 31, 2016 as a result of the establishment of contingency reserves. If either of these insurers had positive unassigned surplus as of the end of the prior fiscal year, such insurer only may pay dividends or other distributions during any 12-month period in an aggregate amount less than or equal to the greater of: (i) 10% of the preceding year-end statutory policyholders' surplus; or (ii) the preceding year's statutory net income. Due to the negative unassigned surplus at the end of 2017, no dividends or other distributions can be paid from Radian Guaranty or Radian Reinsurance without approval from the Pennsylvania Insurance Commissioner. Other than the payment of the Extraordinary Dividend by Radian Guaranty, as described above, neither Radian Guaranty nor Radian Reinsurance paid dividends in 2017 or 2016.

### Radian Guaranty

Radian Guaranty is domiciled and licensed in Pennsylvania as a stock casualty insurance company authorized to carry on the business of credit insurance, which includes the authority to write mortgage guaranty insurance. It is a monoline insurer, restricted to writing first-lien residential mortgage guaranty insurance.

Under state insurance regulations, Radian Guaranty is required to maintain minimum surplus levels and, in certain states, a minimum ratio of statutory capital relative to the level of net RIF, or Risk-to-capital. There are 16 RBC States that currently impose a Statutory RBC Requirement. The most common Statutory RBC Requirement is that a mortgage insurer's Risk-to-capital may not exceed 25 to 1. In certain of the RBC States, a mortgage insurer must satisfy a MPP Requirement. The statutory capital requirements for the non-RBC States are de minimis (ranging from \$1 million to \$5 million); however, the insurance laws of these states generally grant broad supervisory powers to state agencies or officials to enforce rules or exercise discretion affecting almost every significant aspect of the insurance business, including the power to revoke or restrict an insurance company's ability to write new business. Unless an RBC State grants a waiver or other form of relief, if a mortgage insurer, such as Radian Guaranty, is not in compliance with the Statutory RBC Requirement of that state, the mortgage insurer may be prohibited from writing new mortgage insurance business in that state. Radian Guaranty's domiciliary state, Pennsylvania, is not one of the RBC States.

Radian Guaranty was in compliance with the Statutory RBC Requirements or MPP Requirements, as applicable, in each of the RBC States as of December 31, 2017. The NAIC is in the process of developing a new Model Act for mortgage insurers, which is expected to include, among other items, new capital adequacy requirements for mortgage insurers. In May 2016, a working group of state regulators released an exposure draft of a risk-based capital framework to establish capital requirements for mortgage insurers. While the outcome and timing of this process are uncertain, the new Model Act, if and when finalized by the NAIC, has the potential to increase capital requirements in those states that adopt the Model Act. However, we continue to believe the changes to the Model Act will not result in financial requirements that require greater capital than the level currently required under the PMIERS financial requirements. See Note 1 for information regarding the PMIERS, which set requirements for private mortgage insurers to remain eligible insurers of loans purchased by the GSEs.

Radian Guaranty's statutory net income, statutory policyholders' surplus and contingency reserve as of or for the years ended December 31, 2017, 2016 and 2015 were as follows:

(In millions)	December 31,		
	2017	2016	2015
Statutory net income . . . . .	\$ 445.1	\$ 480.8	\$ 754.8
Statutory policyholders' surplus . . . . .	1,201.0	1,349.7	1,686.5
Contingency reserve . . . . .	1,667.0	1,260.6	860.9

Radian Guaranty's Risk-to-capital calculation appears in the table below. For purposes of the Risk-to-capital requirements imposed by certain states, statutory capital is defined as the sum of statutory policyholders' surplus plus statutory contingency reserves.

(\$ in millions)	December 31,	
	2017	2016
RIF, net (1) . . . . .	\$ 36,793.5	\$ 35,357.8
Common stock and paid-in capital . . . . .	\$ 1,866.0	\$ 2,041.0
Surplus Note . . . . .	100.0	—
Unassigned earnings (deficit) . . . . .	(765.0)	(691.3)
Statutory policyholders' surplus . . . . .	1,201.0	1,349.7
Contingency reserve . . . . .	1,667.0	1,260.6
Statutory capital . . . . .	\$ 2,868.0	\$ 2,610.3
Risk-to-capital . . . . .	12.8:1	13.5:1

(1) Excludes risk ceded through reinsurance contracts (to third parties and affiliates) and RIF on defaulted loans.

The net decrease in Radian Guaranty's Risk-to-capital in 2017 was primarily due to statutory capital growing faster than net RIF. Radian Guaranty's statutory capital increased during 2017 due to statutory net income earned during the year and the issuance of the Surplus Note, partially offset by the reallocation of \$175 million of capital from Radian Guaranty to Radian Reinsurance, as described above, and a net decrease in Radian Guaranty's net admitted deferred tax assets. Radian Guaranty's net RIF increased during the year due to strong growth in NIW and IIF, partially offset by the increased reinsurance benefit pursuant to the 2016 Single Premium QSR Transaction.

We have actively managed Radian Guaranty's capital position in various ways, including: (i) through internal and external reinsurance arrangements; (ii) by seeking opportunities to reduce our risk exposure through commutations and other negotiated transactions; and (iii) by contributing additional capital from Radian Group.

Radian Guaranty did not receive capital contributions from Radian Group in the years ended December 31, 2017 or 2016. However, in December 2017, Radian Group transferred \$100 million of cash and marketable securities to Radian Guaranty in exchange for a Surplus Note issued by Radian Guaranty. This Surplus Note has a 0% interest rate and is scheduled to mature on December 31, 2027. The Surplus Note may be redeemed at any time upon 30 days prior notice, subject to the approval of the Pennsylvania Insurance Department.

In December 2015, Radian Group transferred \$325 million of cash and marketable securities to Radian Guaranty in exchange for a Surplus Note issued by Radian Guaranty. This Surplus Note had a 0% interest rate and was scheduled to mature on December 31, 2025. However, Radian Guaranty repaid the Surplus Note in full on June 30, 2016.

### Radian Reinsurance

Effective December 2015, Radian Reinsurance is domiciled and licensed in Pennsylvania as a stock casualty insurance company authorized to carry on the business of credit insurance, which includes the authority to reinsure policies of mortgage guaranty insurance. Radian Reinsurance is only licensed or authorized to write direct mortgage guaranty insurance in Pennsylvania. Radian Reinsurance is required to maintain a minimum statutory surplus of \$20 million to remain an authorized reinsurer in all states. As discussed above, Radian Reinsurance received capital contributions from Radian Group of \$175 million during the year ended December 31, 2017.

Radian Reinsurance's statutory net income, statutory policyholders' surplus and contingency reserve as of and for the years ended December 31, 2017 and 2016 were as follows:

<u>(In millions)</u>	December 31,		
	2017	2016	2015
Statutory net income (loss) . . . . .	\$ 64.3	\$ 60.3	\$ (1.0)
Statutory policyholders' surplus . . . . .	328.9	147.6	138.7
Contingency reserve . . . . .	234.0	180.3	128.8

**Combined Risk-to-Capital Ratio and Other Mortgage Insurance Subsidiaries**

The Risk-to-capital ratio for our combined mortgage insurance operations was 12.1 to 1 as of December 31, 2017, compared to 13.6 to 1 as of December 31, 2016. In addition to Radian Guaranty and Radian Reinsurance, this combined ratio also includes Radian Guaranty Reinsurance, Radian Mortgage Assurance, Radian Investor Surety Inc., Radian Insurance, Radian Mortgage Insurance, and Radian Mortgage Guaranty Inc. Radian Insurance is the only entity that had any remaining RIF as of December 31, 2017, totaling \$24.1 million. The aggregate statutory net income, statutory policyholders' surplus and contingency reserve for these six subsidiaries as of and for the years ended December 31, 2017, 2016 and 2015 were as follows:

<u>(In millions)</u>	December 31,		
	2017	2016	2015
Statutory net income (loss) . . . . .	\$ 0.1	\$ (6.1)	\$ 92.9
Statutory policyholders' surplus . . . . .	58.6	57.1	55.0
Contingency reserve . . . . .	1.7	1.5	1.1

During 2015, Radian Mortgage Guaranty Inc. was newly established as a mortgage guaranty insurer domiciled in Pennsylvania, and received capital contributions from Radian Group totaling \$20 million.

**Principal Differences between GAAP and SAPP**

The differences between the statutory financial statements and financial statements presented on a GAAP basis represent differences between GAAP and SAPP principally for the following reasons:

- (a) Under SAPP, mortgage guaranty insurance companies are required each year to establish a contingency reserve equal to 50% of premiums earned in such year. Such amount must be maintained in the contingency reserve for 10 years, after which time it is released to unassigned surplus. Prior to 10 years, the contingency reserve may be reduced with regulatory approval to the extent that losses in any calendar year exceed 35% of earned premiums for such year.
- (b) Under SAPP, insurance policy acquisition costs are charged against operations in the year incurred. Under GAAP, such costs, other than those incurred in connection with the origination of derivative contracts, are deferred and amortized.
- (c) Under SAPP, income tax expense is calculated on the basis of amounts currently payable. Generally, deferred tax assets are recognized under both SAPP and GAAP when it is more likely than not that the deferred tax asset will be realized. However, SAPP standards impose additional admissibility requirements whereby deferred tax assets are only recognized to the extent they are expected to be recovered within a one- to three-year period subject to a capital and surplus limitation. Changes in deferred tax assets and deferred tax liabilities are recognized as a direct benefit or charge to unassigned surplus, whereas under GAAP changes in deferred tax assets and deferred tax liabilities, except for changes in unrealized gains and losses on available-for-sale securities, are recorded as a component of income tax expense.
- (d) Under SAPP, investment grade fixed-maturity investments are valued at amortized cost and below-investment grade securities are carried at the lower of amortized cost or market value. Under GAAP, those investments that the statutory insurance entities do not have the ability or intent to hold to maturity are considered to be either available for sale or trading securities and are recorded at fair value, with the unrealized gain or loss recognized, net of tax, as an increase or decrease to stockholders' equity or current operations, as applicable.

- (e) Under SAPP, certain assets, designated as non-admitted assets, are charged directly against statutory surplus. Such assets are reflected on our GAAP financial statements.
- (f) Prior to January 1, 2013, under SAPP, the accounting standard regarding share-based payments was not applicable, with regard to the recognition and measurement of stock option issuances. However, effective January 1, 2013, the NAIC adopted SSAP No. 104, *Share-Based Payments* (“SSAP 104”), on a prospective basis. Therefore, expenses related to stock options granted subsequent to the date of adoption of SSAP 104 are recognized under SAPP but expenses related to stock options granted prior to the date of adoption continue to not be recognized under SAPP. Expenses related to stock options, regardless of the date of grant, are reflected on our GAAP financial statements in accordance with this standard.
- (g) Under SAPP, premiums written on a multi-year basis are initially deferred as unearned premiums. A portion of the premium written, which corresponds to the insurance policy acquisition costs, is earned immediately and the remaining premiums written are earned over the policy term. Under GAAP, these premiums written on a multi-year basis are initially deferred as unearned premiums and are earned over the policy term.
- (h) Under SAPP, capital contributions satisfied by receipt of cash or readily marketable securities subsequent to the balance sheet date but prior to the filing of the statutory financial statement are treated as a recognized subsequent event and, as such, are considered an admitted asset based on the evidence of collection and approval of the domiciliary commissioner. Under GAAP, such capital contributions are treated as a non-recognized subsequent event.

**20. Quarterly Financial Data (Unaudited)**

<b>(In thousands, except per-share amounts)</b>	<b>2017 Quarters</b>				
	<b>First</b>	<b>Second</b>	<b>Third</b>	<b>Fourth</b>	<b>Year</b>
Net premiums earned—insurance	\$ 221,800	\$ 229,096	\$ 236,702	\$ 245,175	\$ 932,773
Services revenue	38,027	37,802	39,571	39,703	155,103
Net investment income	31,032	30,071	32,540	33,605	127,248
Net gains (losses) on investments and other financial instruments	(2,851)	5,331	2,480	(1,339)	3,621
Provision for losses	46,913	17,222	35,841	35,178	135,154
Policy acquisition costs	6,729	6,123	5,554	5,871	24,277
Cost of services	28,375	25,635	27,240	23,349	104,599
Other operating expenses	68,377	68,750	64,195	65,999	267,321
Restructuring and other exit costs	—	—	12,038	5,230	17,268
Loss on induced conversion and debt extinguishment	4,456	1,247	45,766	—	51,469
Impairment of goodwill	—	184,374	—	—	184,374
Amortization and impairment of other intangible assets	3,296	18,856	2,890	2,629	27,671
Net income	76,472	(27,342)	65,142	6,816 <sup>(2)</sup>	121,088
Diluted net income (loss) per share <sup>(1)</sup>	\$ 0.34	\$ (0.13)	\$ 0.30	\$ 0.03 <sup>(2)</sup>	\$ 0.55
Weighted-average shares outstanding-diluted	221,497	215,152	219,391	220,250	220,406

	<b>2016 Quarters</b>				
	<b>First</b>	<b>Second</b>	<b>Third</b>	<b>Fourth</b>	<b>Year</b>
Net premiums earned—insurance	\$ 220,950	\$ 229,085	\$ 238,149	\$ 233,585	\$ 921,769
Services revenue	32,849	40,263	45,877	49,905	168,894
Net investment income	27,201	28,839	28,430	28,996	113,466
Net gains (losses) on investments and other financial instruments	31,286	30,527	7,711	(38,773)	30,751
Provision for losses	42,991	49,725	55,785	54,287	202,788
Policy acquisition costs	6,389	5,393	6,119	5,579	23,480
Cost of services	23,550	27,365	29,447	33,812	114,174
Other operating expenses	57,188	63,173	62,119	62,416	244,896
Loss on induced conversion and debt extinguishment	55,570	2,108	17,397	—	75,075
Amortization and impairment of other intangible assets	3,328	3,311	3,292	3,290	13,221
Net income	66,249	98,112	82,803	61,089	308,253
Diluted net income per share <sup>(1)</sup>	\$ 0.29	\$ 0.44	\$ 0.37	\$ 0.27	\$ 1.37
Weighted-average shares outstanding-diluted	239,707	226,203	225,968	224,776	229,258

- (1) Diluted net income per share is computed independently for each period presented. Consequently, the sum of the quarters may not equal the total net income per share for the year. For all calculations, the determination of whether potential common shares are dilutive or anti-dilutive is based on net income.
- (2) The fourth quarter of 2017 reflects an incremental tax provision related to the remeasurement of our net deferred tax assets as a result of the enactment of the TCJA.

**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 designed to provide reasonable assurance that information required to be disclosed in the reports we file or submit 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 disclosure.

Our management, including our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Exchange Act) as of December 31, 2017 pursuant to Rule 15d-15(e) under the Exchange Act. Management necessarily applied its judgment in assessing the costs and benefits of such controls and procedures, which by their nature, can provide only reasonable assurance regarding management's control objectives. Management does not expect that our disclosure controls and procedures will prevent or detect all errors and fraud. A control system, irrespective of how well it is designed and operated, can only provide reasonable assurance and cannot guarantee that it will succeed in its stated objectives.

Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of December 31, 2017, our disclosure controls and procedures were effective to provide reasonable assurance that the information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

### **Management's Report on Internal Control over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Our 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 GAAP. Our internal control over financial reporting includes those policies and procedures that: (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect our transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP and that our receipts and expenditures are being made only in accordance with authorizations of our management and our directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our 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.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, assessed the effectiveness of our internal control over financial reporting, as of December 31, 2017, using the criteria described in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on our evaluation under the updated internal control framework in *Internal Control-Integrated Framework (2013)*, management concluded that our internal control over financial reporting was effective as of December 31, 2017. The effectiveness of our internal control over financial reporting as of December 31, 2017 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report appearing in Item 8 of this Annual Report on Form 10-K.

There was no change in the internal control over financial reporting that occurred during the period covered by this report 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 is incorporated by reference to, and will be contained in, our definitive proxy statement, which will be filed within 120 days after December 31, 2017. Accordingly, we have omitted the information from this Item pursuant to General Instruction G (3) of Form 10-K.

**Item 11. Executive Compensation.**

The information required by this Item is incorporated by reference to, and will be contained in, our definitive proxy statement, which will be filed within 120 days after December 31, 2017. Accordingly, we have omitted the information from this Item pursuant to General Instruction G (3) of Form 10-K.

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

The information required by this Item is incorporated by reference to, and will be contained in, our definitive proxy statement, which will be filed within 120 days after December 31, 2017. Accordingly, we have omitted the information from this Item pursuant to General Instruction G (3) of Form 10-K.

**Equity Compensation Plans**

The following table sets forth certain information relating to the Company’s equity compensation plans as of December 31, 2017. Each number of securities reflected in the table is a reference to shares of our common stock.

<u>Plan Category</u> (1)	(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	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column(a))
Equity compensation plans approved by stockholders (2) .....	5,362,021 (3)	\$ 3.85 (4)	9,753,999 (5)
Equity compensation plans not approved by stockholders .....	—	—	—
Total .....	<u>5,362,021</u> (3)	<u>\$ 3.85</u> (4)	<u>9,753,999</u> (5)

- (1) The table does not include information for equity compensation plans assumed by us in mergers, under which we do not grant additional awards.
- (2) These plans consist of our 1995 Equity Plan, 2008 Equity Plan, the Amended and Restated Equity Compensation Plan and our 2008 ESPP.
- (3) Represents 234,302 shares of phantom stock issued under our 1995 Equity Plan, 1,055,900 non-qualified stock options and 944,352 RSUs issued under our 2008 Equity Plan, and 636,843 non-qualified stock options and 2,490,624 RSUs issued under our 2014 Equity Plan. Of the RSUs included herein, 1,517,442 are performance-based stock-settled RSUs that could potentially pay out between 0% and 200% of this represented target, and 123,496 are performance-based stock-settled RSUs that could pay out to our former CEO at 0% or 100%.
- (4) The shares of phantom stock and RSUs were granted at full value, and therefore, have a weighted-average exercise price of \$0. Excluding shares of phantom stock and RSUs from this calculation, the weighted-average exercise price of outstanding non-qualified stock options was \$8.16 at December 31, 2017.
- (5) Includes 8,851,531 shares available for issuance under our Amended and Restated Equity Compensation Plan, and 902,468 shares available for issuance under our 2008 ESPP, in each case as of December 31, 2017. In January 2018, we issued 52,464 shares from the shares available for issuance under our 2008 ESPP. As a result, 850,004 shares currently remain available for issuance under the 2008 ESPP.

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

The information required by this Item is incorporated by reference to, and will be contained in, our definitive proxy statement, which will be filed within 120 days after December 31, 2017. Accordingly, we have omitted the information from this Item pursuant to General Instruction G (3) of Form 10-K.

**Item 14. Principal Accountant Fees and Services.**

The information required by this Item is incorporated by reference to, and will be contained in, our definitive proxy statement, which will be filed within 120 days after December 31, 2017. Accordingly, we have omitted the information from this Item pursuant to General Instruction G (3) of Form 10-K.

## PART IV

### Item 15. Exhibits and Financial Statement Schedules.

(a)

1. Financial Statements—See the “Index to Consolidated Financial Statements” included in Item 8 of this report for a list of the financial statements filed as part of this report.
2. Exhibits—See “Index to Exhibits” on page [221](#) of this report for a list of exhibits filed as part of this report.
3. Financial Statement Schedules—See the “Index to Financial Statement Schedules” on page [232](#) of this report for a list of the financial statement schedules filed as part of this report.
  - Schedule I—Summary of investments—other than investments in related parties (December 31, 2017) [F-1](#)
  - Schedule II—Financial information of Radian Group, Inc., Parent Company Only (Registrant) [F-2](#)
    - Condensed Balance Sheets as of December 31, 2017 and 2016 [F-2](#)
    - Condensed Statements of Operations for the Years Ended December 31, 2017, 2016 and 2015 [F-3](#)
    - Condensed Statements of Cash Flows for the Years Ended December 31, 2017, 2016 and 2015 [F-4](#)
    - Supplemental Notes to Condensed Financial Statements [F-5](#)
  - Schedule IV—Reinsurance (December 31, 2017, 2016 and 2015) [F-8](#)

### Item 16. Form 10-K Summary.

None.

## INDEX TO EXHIBITS

<u>Exhibit Number</u>	<u>Exhibit</u>
2.1	<a href="#">Unit Purchase Agreement, dated as of May 6, 2014, by and among (i) the Registrant, (ii) Clayton Holdings LLC and (iii) Cobra Green LLC, a Delaware limited liability company, and Paul T. Bossidy (incorporated by reference to Exhibit 2 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended March 31, 2014)</a>
2.2	<a href="#">Stock Purchase Agreement dated as of December 22, 2014, between Radian Guaranty Inc. and Assured Guaranty Corp. (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated December 22, 2014 and filed on December 23, 2014)</a>
3.1	<a href="#">Third Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated May 11, 2004 and filed on May 12, 2004)</a>
3.2	<a href="#">Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated May 22, 2008 and filed on May 29, 2008)</a>
3.3	<a href="#">Second Amendment to the Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated May 12, 2010 and filed on May 18, 2010)</a>
3.4	<a href="#">Certificate of Amendment of Certificate of Incorporation of the Registrant effective as of May 15, 2013 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated May 14, 2013 and filed on May 20, 2013)</a>
3.5	<a href="#">Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Registrant effective as of May 11, 2016 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated May 11, 2016 and filed on May 17, 2016)</a>
3.6	<a href="#">Certificate of Change of Registered Agent and Registered Office of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated November 10, 2010 and filed on November 16, 2010)</a>
3.7	<a href="#">Certificate of Designation of Series A Junior Participating Preferred Stock (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated October 9, 2009 and filed on October 13, 2009)</a>
3.8	<a href="#">Amended and Restated Bylaws of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated November 9, 2016 and filed on November 14, 2016)</a>
4.1	<a href="#">Specimen certificate for Common Stock (incorporated by reference to Exhibit 4.1 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 1999)</a>
4.2	<a href="#">Amended and Restated Tax Benefit Preservation Plan, dated as of February 12, 2010, between the Registrant and The Bank of New York Mellon (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated February 12, 2010 and filed on February 17, 2010)</a>
4.3	<a href="#">First Amendment to the Amended and Restated Tax Benefit Preservation Plan, dated as of May 3, 2010, between the Registrant and The Bank of New York Mellon (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated May 3, 2010 and filed on May 4, 2010)</a>
4.4	<a href="#">Senior Indenture, dated as of June 7, 2005, between the Registrant and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated June 2, 2005 and filed on June 7, 2005)</a>
4.5	<a href="#">Senior Indenture, dated as of November 15, 2010, between the Registrant and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated November 10, 2010 and filed on November 16, 2010)</a>

<u>Exhibit Number</u>	<u>Exhibit</u>
4.6	<a href="#">First Supplemental Indenture, dated as of November 15, 2010, between the Registrant and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated November 10, 2010 and filed on November 16, 2010)</a>
4.7	<a href="#">Form of 3.00% Convertible Senior Notes Due 2017 (included within Exhibit 4.6)</a>
4.8	<a href="#">Officers' Certificate, dated as of January 4, 2013, including the terms of the Registrant's 9.000% Senior Notes due 2017, as Attachment A, and including the form of the Notes as Exhibit A-1 to Attachment A (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated January 4, 2013 and filed on January 7, 2013)</a>
4.9	<a href="#">Form of 9.000% Senior Notes Due 2017 (included within Exhibit 4.8)</a>
4.10	<a href="#">Registration Rights Agreement, dated as of January 4, 2013, between the Registrant and Morgan Stanley &amp; Co. LLC (incorporated by reference to Exhibit 4.3 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated January 4, 2013 and filed on January 7, 2013)</a>
4.11	<a href="#">Senior Indenture dated as of March 4, 2013 between the Registrant and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated February 27, 2013 and filed on March 4, 2013)</a>
4.12	<a href="#">First Supplemental Indenture dated as of March 4, 2013 between the Registrant and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated February 27, 2013 and filed on March 4, 2013)</a>
4.13	<a href="#">Form of 2.25% Convertible Senior Notes due 2019 (included within Exhibit 4.12)</a>
4.14	<a href="#">Second Supplemental Indenture, dated as of May 13, 2014, between the Registrant and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated May 7, 2014 and filed on May 13, 2014)</a>
4.15	<a href="#">Form of 5.500% Senior Note due 2019 (included within Exhibit 4.14)</a>
4.16	<a href="#">Officers' Certificate, dated as of February 28, 2013, including the terms of the Registrant's 9.000% Senior Notes due 2017, as Attachment A, and including the form of the Registered Notes as Exhibit A-1 to Attachment A (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated February 28, 2013 and filed on March 6, 2013)</a>
4.17	<a href="#">Form of 9.000% Senior Notes due 2017 (included within exhibit 4.16)</a>
4.18	<a href="#">Third Supplemental Indenture dated as of June 19, 2015 between the Registrant and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated June 16, 2015 and filed on June 19, 2015)</a>
4.19	<a href="#">Form of 5.250% Senior Notes due 2020 (included within Exhibit 4.18)</a>
4.20	<a href="#">Fourth Supplemental Indenture dated as of March 18, 2016 between the Registrant and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated March 15, 2016 and filed on March 18, 2016)</a>
4.21	<a href="#">Form of 7.000% Senior Note due 2021 (included within Exhibit 4.20)</a>
+10.1	<a href="#">Employment Agreement between the Registrant and Sanford A. Ibrahim, dated as of November 12, 2014 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated November 12, 2014 and filed on November 18, 2014)</a>
+10.2	<a href="#">Stock Appreciation Right Agreement under 2008 Equity Compensation Plan, dated as of May 13, 2009, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.25 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2009)</a>
+10.3	<a href="#">Restricted Stock Award Agreement under 2008 Equity Compensation Plan, dated as of May 13, 2009, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.26 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2009)</a>



<u>Exhibit Number</u>	<u>Exhibit</u>
+10.4	<a href="#">Restricted Stock Award Agreement under 2008 Equity Compensation Plan, dated as of May 16, 2009, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.27 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2009)</a>
+10.5	<a href="#">Amendments to Restricted Stock and Stock Option Grants between the Registrant and Sanford A. Ibrahim, dated as of February 10, 2010 (incorporated by reference to Exhibit 10.11 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2009)</a>
+10.6	<a href="#">2010 Performance-Based Restricted Stock Unit Agreement under the 2008 Equity Compensation Plan, dated May 12, 2010 between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2010)</a>
+10.7	<a href="#">2010 Stock Option Agreement under the 2008 Equity Compensation Plan, dated May 12, 2010 between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2010)</a>
+10.8	<a href="#">Form of Executive Officer Severance Agreement (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated December 30, 2010 and filed on January 6, 2011)</a>
+10.9	<a href="#">Radian Group Inc. Amended and Restated Benefit Restoration Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated November 6, 2007 and filed on November 13, 2007)</a>
+10.10	<a href="#">Amendment No. 1 to the Radian Group Inc. Amended and Restated Benefit Restoration Plan, effective January 1, 2008 (incorporated by reference to Exhibit 10.16 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2008)</a>
*+10.11	<a href="#">Comprehensive 401(k) Profit Sharing Plan Nonstandard Adoption Agreement, effective January 1, 2016</a>
*+10.12	<a href="#">Qualified Retirement Plan and Trust Defined Contribution Basic Plan Document, adopted by Radian Group Inc. effective January 1, 2016</a>
+10.13	<a href="#">Amendment to Radian Group Inc. 1995 Equity Compensation Plan (Amended and Restated May 9, 2006) dated February 5, 2007 (incorporated by reference to Exhibit 10.17 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2006)</a>
+10.14	<a href="#">Amendment No. 2 to Radian Group Inc. 1995 Equity Compensation Plan, dated November 6, 2007 (incorporated by reference to Exhibit 10.23 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2007)</a>
+10.15	<a href="#">Form of Stock Option Grant Letter under 1995 Equity Compensation Plan (incorporated by reference to Exhibit 10 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended September 30, 2004)</a>
+10.16	<a href="#">Form of Restricted Stock Award Agreement for awards granted before February 5, 2007 under 1995 Equity Compensation Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2005)</a>
+10.17	<a href="#">Form of Restricted Stock Award Agreement for awards granted on or after February 5, 2007 under 1995 Equity Compensation Plan (incorporated by reference to Exhibit 10.20 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2006)</a>
+10.18	<a href="#">Form of Phantom Stock Agreement for Non-Employee Directors under 1995 Equity Compensation Plan (incorporated by reference to Exhibit 10.6 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated February 8, 2005 and filed on February 14, 2005)</a>
+10.19	<a href="#">Radian Group Inc. Amended and Restated 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Registration Statement on Form S-8 (file no. 333-174428) filed on May 23, 2011)</a>
+10.20	<a href="#">Form of Stock Option Grant Letter under 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended September 30, 2008)</a>

<u>Exhibit Number</u>	<u>Exhibit</u>
+10.21	<a href="#">Form of Restricted Stock Award Agreement under 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.7 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended September 30, 2008)</a>
+10.22	<a href="#">Form of Phantom Stock Agreement for Non-Employee Directors under 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.8 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended September 30, 2008)</a>
+10.23	<a href="#">Amendment to Form of 2008 Phantom Stock Agreement for Non-Employee Directors under the 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2009)</a>
+10.24	<a href="#">Form of 2009 Restricted Stock Award Agreement under the 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2009)</a>
+10.25	<a href="#">Form of 2009 Stock Appreciation Right Agreement under the 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2009)</a>
+10.26	<a href="#">Form of Restricted Stock Unit Award Agreement for Employees under the 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.34 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2009)</a>
+10.27	<a href="#">Form of 2009 Restricted Stock Unit Award Agreement for Non-Employee Directors under the 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2009)</a>
+10.28	<a href="#">Amended and Restated Radian Group Inc. 2008 Executive Long-Term Incentive Cash Plan (incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended March 31, 2011)</a>
+10.29	<a href="#">Form of 2010 Performance-Based Restricted Stock Unit Agreement under the 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2010)</a>
+10.30	<a href="#">Form of 2010 Stock Option Agreement under the 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2010)</a>
+10.31	<a href="#">Form of 2010 Executive Long-Term Incentive Cash Plan Award (incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2010)</a>
+10.32	<a href="#">Radian Group Inc. Amended and Restated Performance Share Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Amended Current Report on Form 8-K (file no. 1-11356) dated February 8, 2005 and filed on February 14, 2005)</a>
+10.33	<a href="#">Amended and Restated Radian Group Inc. Voluntary Deferred Compensation Plan for Directors (incorporated by reference to Exhibit 10.34 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2014)</a>
+10.34	<a href="#">Amended and Restated Radian Voluntary Deferred Compensation Plan for Officers (incorporated by reference to Exhibit 10.35 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2014)</a>
+10.35	<a href="#">Radian Group Inc. 2008 Employee Stock Purchase Plan, as amended and restated on December 11, 2012 (incorporated by reference to Exhibit 10.42 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2012)</a>
+10.36	<a href="#">Radian Group Inc. STI/MTI Incentive Plan for Executive Employees (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated November 12, 2009 and filed on November 18, 2009)</a>

<u>Exhibit Number</u>	<u>Exhibit</u>
+10.37	<a href="#">Radian Group Inc. STI Incentive Plan For Financial Guaranty Employees (incorporated by reference to Exhibit 10.42 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2013)</a>
+10.38	<a href="#">Enhance Financial Services Group Inc. 1997 Long-Term Incentive Plan for Key Employees (As Amended Through June 3, 1999) (incorporated by reference to Exhibit 10.2.2 to the Quarterly Report on Form 10-Q (file no. 1-10967) for the period ended June 30, 1999, of Enhance Financial Services Group Inc.)</a>
+10.39	<a href="#">Enhance Reinsurance Company Supplemental Pension Plan (incorporated by reference to Exhibit 10.4 to the Annual Report on Form 10-K (file no. 1-10967) for the year ended December 31, 1999, of Enhance Financial Services Group Inc.)</a>
+10.40	<a href="#">Amendment to Enhance Reinsurance Company Supplemental Pension Plan, effective January 1, 2008 (incorporated by reference to Exhibit 10.40 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2008)</a>
+10.41	<a href="#">Certain Compensation Arrangements with Directors (Effective May, 2008) (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2008)</a>
10.42	<a href="#">Net Worth and Liquidity Maintenance Agreement, dated as of October 10, 2000, between Radian Guaranty Inc. and Radian Insurance Inc. (incorporated by reference to Exhibit 10.26 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2002)</a>
10.43	<a href="#">Form of Expense Allocation and Services Agreement between the Registrant and each of Radian Guaranty Inc., Radian Insurance Inc., Radian Asset Assurance Inc. and Amerin Guaranty Corporation (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2005)</a>
10.44	<a href="#">Form Amendment to Expense Allocation and Services Agreement between the Registrant and each of Radian Guaranty Inc. Radian Insurance Inc., Radian Asset Assurance Inc. and Amerin Guaranty Corporation (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on form 10-Q (file no. 1-11356) for the period ended March 31, 2009)</a>
10.45	<a href="#">Radian Group Inc. Allocation of Consolidated Tax Liability Agreement between the Registrant and each of its subsidiaries, dated January 1, 2002, including Addendums 1 through 6 dated between January 1, 2002 and July 10, 2008 (incorporated by reference to Exhibit 10.49 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2008)</a>
10.46	<a href="#">Securities Purchase Agreement, dated as of May 3, 2010, by and between Radian Guaranty Inc. and Sherman Financial Group LLC (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated April 30, 2010 and filed on May 4, 2010)</a>
+10.47	<a href="#">Form of 2011 Performance Based Restricted Stock Unit Agreement under the 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2011)</a>
+10.48	<a href="#">Form of 2011 Stock Option Agreement under the 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2011)</a>
+10.49	<a href="#">2011 Performance Based Restricted Stock Unit Agreement under the 2008 Equity Compensation Plan, dated June 9, 2011, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.7 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2011)</a>
+10.50	<a href="#">2011 Performance Based Restricted Stock Unit Agreement under the 2008 Equity Compensation Plan, dated June 9, 2011, between the Registrant and C. Robert Quint (incorporated by reference to Exhibit 10.8 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2011)</a>
+10.51	<a href="#">2011 Stock Option Agreement under the 2008 Equity Compensation Plan, dated June 9, 2011, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.9 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2011)</a>

<u>Exhibit Number</u>	<u>Exhibit</u>
+10.52	<a href="#">2011 Stock Option Agreement under the 2008 Equity Compensation Plan, dated June 9, 2011, between the Registrant and C. Robert Quint (incorporated by reference to Exhibit 10.10 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2011)</a>
+10.53	<a href="#">Severance Agreement, dated December 23, 2011, between Teresa Bryce Bazemore and the Registrant (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) filed December 29, 2011)</a>
+10.54	<a href="#">Transfer Letter Agreement between the Registrant and Derek Brummer, dated April 3, 2013 (incorporated by reference to Exhibit 10.63 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2013)</a>
10.55	<a href="#">Commutation, Reassumption and Release Agreement, effective as of January 1, 2012 (signed January 24, 2012), between Assured Guaranty Municipal Corp. (formerly Financial Security Assurance Inc.), Assured Guaranty (Europe) Ltd. (formerly Financial Security Assurance (U.K.) Limited), and Radian Asset Assurance Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated January 30, 2012 and filed on January 30, 2012)</a>
+10.56	<a href="#">Form of 2012 Performance Based Restricted Stock Unit Agreement under the 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2012)</a>
+10.57	<a href="#">Form of 2012 Stock Option Agreement under the 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2012)</a>
+10.58	<a href="#">2012 Performance Based Restricted Stock Unit Grant Letter under the 2008 Equity Compensation Plan, dated as of June 6, 2012, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2012)</a>
+10.59	<a href="#">2012 Performance Based Restricted Stock Unit Grant Letter under the 2008 Equity Compensation Plan, dated as of June 6, 2012, between the Registrant and C. Robert Quint (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2012)</a>
+10.60	<a href="#">2012 Stock Option Agreement under the 2008 Equity Compensation Plan, dated as of June 6, 2012, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2012)</a>
+10.61	<a href="#">2012 Stock Option Agreement under the 2008 Equity Compensation Plan, dated as of June 6, 2012, between the Registrant and C. Robert Quint (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2012)</a>
+10.62	<a href="#">Letter Agreement, dated May 16, 2013, between the Registrant and S.A. Ibrahim (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated May 14, 2013 and filed on May 20, 2013)</a>
+10.63	<a href="#">2013 Performance-Based Restricted Stock Unit Grant Letter under the 2008 Equity Compensation Plan, dated as of May 14, 2013, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2013)</a>
+10.64	<a href="#">2013 Stock Option Agreement under the 2008 Equity Compensation Plan, dated as of May 14, 2013, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2013)</a>
+10.65	<a href="#">2013 Performance-Based Restricted Stock Unit Grant Letter under the 2008 Equity Compensation Plan, dated as of May 14, 2013, between the Registrant and C. Robert Quint (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2013)</a>
+10.66	<a href="#">2013 Stock Option Agreement under the 2008 Equity Compensation Plan, dated as of May 14, 2013, between the Registrant and C. Robert Quint (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2013)</a>

<u>Exhibit Number</u>	<u>Exhibit</u>
+10.67	<a href="#">Form of 2013 Performance-Based Restricted Stock Unit Agreement under the 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2013)</a>
+10.68	<a href="#">Form of 2013 Stock Option Agreement under the 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2013)</a>
10.69	<a href="#">Master Transaction Agreement, dated as of August 29, 2013, by and between Radian Guaranty Inc. and Federal Home Loan Mortgage Corporation (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated August 29, 2013 and filed on August 30, 2013)</a>
+10.70	<a href="#">2014 Performance-Based Restricted Stock Unit Grant Letter under the 2014 Equity Compensation Plan, dated as of June 17, 2014, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2014)</a>
+10.71	<a href="#">2014 Stock Option Agreement under the 2014 Equity Compensation Plan, dated as of June 17, 2014, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2014)</a>
+10.72	<a href="#">2014 Performance-Based Restricted Stock Unit Grant Letter under the 2014 Equity Compensation Plan, dated as of June 17, 2014, between the Registrant and C. Robert Quint (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2014)</a>
+10.73	<a href="#">2014 Stock Option Agreement under the 2014 Equity Compensation Plan, dated as of June 17, 2014, between the Registrant and C. Robert Quint (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2014)</a>
+10.74	<a href="#">Form of 2014 Performance-Based Restricted Stock Unit Grant Letter under the 2014 Equity Compensation Plan (incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2014)</a>
+10.75	<a href="#">Form of 2014 Stock Option Agreement under the 2014 Equity Compensation Plan (incorporated by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2014)</a>
10.76	<a href="#">Confidential Settlement Agreement and Release, dated as of September 16, 2014 by and among Radian Guaranty Inc., Countrywide Home Loans, Inc., and Bank of America, N.A., as a successor to BofA Home Loans Servicing f/k/a Countrywide Home Loans Servicing LP on its own behalf and as successor in interest by de jure merger to Countrywide Bank FSB, formerly Treasury Bank (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated September 16, 2014, and filed on September 19, 2014)</a>
+10.77	<a href="#">Letter Agreement, effective as of December 10, 2014, between the Registrant and J. Franklin Hall (including Attachment A - Severance Agreement and Attachment B - Restrictive Covenant Agreement) (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated December 10, 2014 and filed on December 15, 2014)</a>
+10.78	<a href="#">Radian Group Inc. 2014 Equity Compensation Plan (incorporated by reference to Appendix A to the Registrant's Definitive Proxy Statement on Schedule 14A (file no. 1-11356) filed on April 7, 2014 for the 2014 Annual Meeting of Stockholders)</a>
10.79	<a href="#">Accelerated Share Repurchase Agreement, dated as of June 18, 2015, between the Registrant and Deutsche Bank AG, London Branch with Deutsche Bank Securities Inc. acting as agent (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2015)</a>
+10.80	<a href="#">2014 Stock Option Agreement under the 2014 Equity Compensation Plan, dated as of July 9, 2015, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended September 30, 2015)</a>
+10.81	<a href="#">2015 Performance-Based Restricted Stock Unit Grant Letter under the 2014 Equity Compensation Plan, dated as of July 9, 2015, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended September 30, 2015)</a>



<u>Exhibit Number</u>	<u>Exhibit</u>
+10.82	<a href="#">Form of 2015 Stock Option Agreement under the 2014 Equity Compensation Plan (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended September 30, 2015)</a>
+10.83	<a href="#">Form of 2015 Performance-Based Restricted Stock Unit Grant Letter under the 2014 Equity Compensation Plan (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended September 30, 2015)</a>
+10.84	<a href="#">Form of Amendment to Restricted Stock Unit Award Agreement for Non-Employee Directors under the 2008 Equity Compensation Plan (incorporated by reference to Exhibit 10.91 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2015)</a>
+10.85	<a href="#">Form of 2015 Time-Based Restricted Stock Unit Grant Letter under the 2014 Equity Compensation Plan (incorporated by reference to Exhibit 10.92 to the Registrant's Annual Report on Form 10-K (file no. 1-11356) for the year ended December 31, 2015)</a>
+10.86	<a href="#">Severance Agreement and Release, effective March 30, 2016, between the Registrant and Joseph D'Urso (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended March 31, 2016)</a>
+10.87	<a href="#">2016 Performance-Based Restricted Stock Unit Grant Letter under the 2014 Equity Compensation Plan, dated as of May 11, 2016, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2016)</a>
+10.88	<a href="#">2016 Stock Option Agreement under the 2014 Equity Compensation Plan, dated as of May 11, 2016, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2016)</a>
+10.89	<a href="#">Form of 2016 Performance-Based Restricted Stock Unit Grant Letter under the 2014 Equity Compensation Plan (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2016)</a>
+10.90	<a href="#">Form of 2016 Stock Option Agreement under the 2014 Equity Compensation Plan (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2016)</a>
+10.91	<a href="#">Form of Executive Severance Agreement (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended September 30, 2016)</a>
+10.92	<a href="#">Form of Restrictive Covenant Agreement (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended September 30, 2016)</a>
+10.93	<a href="#">Employment Agreement, dated as of February 8, 2017, between the Registrant and Richard G. Thornberry (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated February 7, 2017 and filed on February 13, 2017)</a>
+10.94	<a href="#">Restrictive Covenants Agreement, dated as of February 8, 2017, between the Registrant and Richard G. Thornberry (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated February 7, 2017 and filed on February 13, 2017)</a>
+10.95	<a href="#">Form of Restricted Stock Unit Agreement between the Registrant and Richard G. Thornberry (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated February 7, 2017 and filed on February 13, 2017)</a>
+10.96	<a href="#">Retirement Agreement, dated as of February 8, 2017, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated February 7, 2017 and filed on February 13, 2017)</a>
+10.97	<a href="#">Consulting Agreement, dated as of February 8, 2017, between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.5 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated February 7, 2017 and filed on February 13, 2017)</a>



<u>Exhibit Number</u>	<u>Exhibit</u>
+10.98	<a href="#">Form of Performance Based Restricted Stock Unit Agreement between the Registrant and Sanford A. Ibrahim (incorporated by reference to Exhibit 10.6 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated February 7, 2017 and filed on February 13, 2017)</a>
+10.99	<a href="#">Radian Group Inc. STI/MTI Incentive Plan for Executive Employees, as amended and restated (incorporated by reference to Exhibit 10.7 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated February 7, 2017 and filed on February 13, 2017)</a>
+10.100	<a href="#">Radian Group Inc. Equity Compensation Plan (Amended and Restated as of May 10, 2017 (incorporated by reference to Appendix A to the Registrant's Definitive Proxy Statement on Schedule 14A (file no. 1-11356) filed on April 10, 2017 for the 2017 Annual Meeting of Stockholders)</a>
+10.101	<a href="#">Form of 2017 Performance-Based Restricted Stock Unit Grant Letter (book value) under the Radian Group Inc. Equity Compensation Plan between the Registrant and Richard G. Thornberry (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2017)</a>
+10.102	<a href="#">Form of 2017 Performance-Based Restricted Stock Unit Grant Letter (TSR) under the Radian Group Inc. Equity Compensation Plan between the Registrant and Richard G. Thornberry (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2017)</a>
+10.103	<a href="#">Form of 2017 Time-Based Restricted Stock Unit Grant Letter under the Radian Group Inc. Equity Compensation Plan between the Registrant and Richard G. Thornberry (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2017)</a>
+10.104	<a href="#">Form of Executive Officer 2017 Performance-Based Restricted Stock Unit Grant Letter (book value) under the Radian Group Inc. Equity Compensation Plan (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2017)</a>
+10.105	<a href="#">Form of Executive Officer 2017 Performance-Based Restricted Stock Unit Grant Letter (TSR) under the Radian Group Inc. Equity Compensation Plan (incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2017)</a>
+10.106	<a href="#">Form of Executive Officer 2017 Time-Based Restricted Stock Unit Grant Letter under the Radian Group Inc. Equity Compensation Plan (incorporated by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q (file no. 1-11356) for the period ended June 30, 2017)</a>
10.107	<a href="#">Credit Agreement, dated October 16, 2017, by and among the Registrant, Royal Bank of Canada, as Administrative Agent, RBC Capital Markets and U.S. Bank National Association, as Syndication Agents, Joint Lead Arrangers and Joint Book Runners, Associated Bank, National Association, as Documentation Agent, and certain other banks and financial institutions (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (file no. 1-11356) dated October 16, 2017 and filed on October 20, 2017)</a>
*12	<a href="#">Ratio of Earnings to Fixed Charges and to Combined Fixed Charges and Preferred Stock Dividends</a>
*21	<a href="#">Subsidiaries of the Registrant</a>
*23.1	<a href="#">Consent of PricewaterhouseCoopers LLP</a>
*31	<a href="#">Rule 13a-14(a) Certifications</a>
**32	<a href="#">Section 1350 Certifications</a>
*101	The following financial information from Radian Group Inc.'s Annual Report on Form 10-K for the year ended December 31, 2017, is formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheets as of December 31, 2017 and December 31, 2016, (ii) Consolidated Statements of Operations for the years ended December 31, 2017, 2016, and 2015, (iii) Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2017, 2016, and 2015, (iv) Consolidated Statements of Changes in Common Stockholders' Equity for the years ended December 31, 2017, 2016, and 2015, (v) Consolidated Statements of Cash Flows for the years ended December 31, 2017, 2016, and 2015, and (vi) the Notes to Consolidated Financial Statements.
*	Filed herewith.
**	Furnished herewith.
+	Management contract, compensatory plan or arrangement

## 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, on February 28, 2018.

Radian Group Inc.

By: \_\_\_\_\_ /s/ Richard G. Thornberry

**Richard G. Thornberry**  
**Chief Executive Officer**

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below on February 28, 2018, by the following persons on behalf of the registrant and in the capacities indicated.

<u>Name</u>	<u>Title</u>
<u>/s/ RICHARD G. THORBERRY</u> <b>Richard G. Thornberry</b>	Chief Executive Officer (Principal Executive Officer) and Director
<u>/s/ J. FRANKLIN HALL</u> <b>J. Franklin Hall</b>	Senior Executive Vice President, Chief Financial Officer (Principal Financial Officer)
<u>/s/ CATHERINE M. JACKSON</u> <b>Catherine M. Jackson</b>	Senior Vice President, Controller (Principal Accounting Officer)
<u>/s/ HERBERT WENDER</u> <b>Herbert Wender</b>	Non-Executive Chairman of the Board
<u>/s/ DAVID C. CARNEY</u> <b>David C. Carney</b>	Director
<u>/s/ HOWARD B. CULANG</u> <b>Howard B. Culang</b>	Director
<u>/s/ LISA W. HESS</u> <b>Lisa W. Hess</b>	Director
<u>/s/ STEPHEN T. HOPKINS</u> <b>Stephen T. Hopkins</b>	Director
<u>/s/ BRIAN D. MONTGOMERY</u> <b>Brian D. Montgomery</b>	Director
<u>/s/ GAETANO MUZIO</u> <b>Gaetano Muzio</b>	Director
<u>/s/ GREGORY V. SERIO</u> <b>Gregory V. Serio</b>	Director
<u>/s/ NOEL J. SPIEGEL</u> <b>Noel J. Spiegel</b>	Director

## INDEX TO FINANCIAL STATEMENT SCHEDULES

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All other schedules are omitted because the required information is not present or is not present in amounts sufficient to require submission of the schedules, or because the information required is included in our Consolidated Financial Statements and notes thereto.

**Radian Group Inc. and Its Consolidated Subsidiaries**  
**Schedule I**  
**Summary of Investments—Other Than Investments in Related Parties**  
**December 31, 2017**

<u>Type of Investment</u>	<u>Amortized Cost</u>	<u>Fair Value</u>	<u>Amount Reflected on the Consolidated Balance Sheet</u>
<b>(In thousands)</b>			
Fixed-maturities available for sale:			
Bonds:			
U.S. government and agency securities . . . . .	\$ 69,668	\$ 69,396	\$ 69,396
State and municipal obligations . . . . .	156,587	161,722	161,722
Corporate bonds and notes . . . . .	1,869,318	1,894,886	1,894,886
RMBS . . . . .	189,455	187,229	187,229
CMBS . . . . .	451,595	453,394	453,394
Other ABS . . . . .	672,715	674,548	674,548
Foreign government and agency securities . . . . .	31,416	32,207	32,207
Total fixed-maturities available for sale (1) . . . . .	<u>3,440,754</u>	<u>3,473,382</u>	<u>3,473,382</u>
Trading securities (1) (2) . . . . .	588,061	606,434	606,434
Equity securities available for sale:			
Common stocks (1) . . . . .	176,349	176,065	176,065
Total equity securities available for sale . . . . .	<u>176,349</u>	<u>176,065</u>	<u>176,065</u>
Short-term investments (1) (3) . . . . .	415,809	415,691	415,691
Other invested assets . . . . .	334	3,226	334
Total investments other than investments in related parties . . . . .	<u>\$ 4,621,307</u>	<u>\$ 4,674,798</u>	<u>\$ 4,671,906</u>

- (1) These classifications include a total of \$28.0 million of loaned securities under securities lending agreements that are classified as other assets in our consolidated balance sheets.
- (2) Includes foreign government and agency securities.
- (3) Includes cash collateral held under securities lending agreements (\$19.4 million) reinvested in money market instruments.

**Radian Group Inc.**  
**Schedule II—Financial Information of Registrant**  
**Condensed Balance Sheet**  
**Parent Company Only**

	December 31,	
	2017	2016
<b>(\$ in thousands, except share and per-share amounts)</b>		
<b>Assets</b>		
Investments		
Fixed-maturities available for sale—at fair value . . . . .	\$ 10,785	\$ 79,336
Short-term investments—at fair value . . . . .	83,356	311,418
Total investments . . . . .	94,141	390,754
Cash . . . . .	13,173	8,256
Restricted cash (Note B) . . . . .	—	124
Investment in subsidiaries, at equity in net assets (Note C) . . . . .	3,764,865	3,383,089
Accounts and notes receivable (Note D) . . . . .	103,561	305,316
Federal income taxes recoverable, net—current . . . . .	35,741	—
Other assets (Note E) . . . . .	166,051	166,098
Total assets . . . . .	<u>\$ 4,177,532</u>	<u>\$ 4,253,637</u>
<b>Liabilities and Stockholders' Equity</b>		
Long-term debt (Note F) . . . . .	\$ 1,027,074	\$ 1,069,537
Federal income taxes—current . . . . .	—	78,980
Federal income taxes—deferred . . . . .	97,067	187,309
Other liabilities . . . . .	53,353	45,525
Total liabilities . . . . .	1,177,494	1,381,351
Common stockholders' equity		
Common stock: par value \$.001 per share; 485,000,000 shares authorized at December 31, 2017 and 2016; 233,416,989 and 232,091,921 shares issued at December 31, 2017 and 2016, respectively; 215,814,188 and 214,521,079 shares outstanding at December 31, 2017 and 2016, respectively . . . . .	233	232
Treasury stock, at cost: 17,602,801 and 17,570,842 shares at December 31, 2017 and 2016, respectively . . . . .	(893,888)	(893,332)
Additional paid-in capital . . . . .	2,754,275	2,779,891
Retained earnings . . . . .	1,116,333	997,890
Accumulated other comprehensive income (loss) . . . . .	23,085	(12,395)
Total common stockholders' equity . . . . .	3,000,038	2,872,286
Total liabilities and stockholders' equity . . . . .	<u>\$ 4,177,532</u>	<u>\$ 4,253,637</u>

See Supplemental Notes.



**Radian Group Inc.**  
**Schedule II—Financial Information of Registrant**  
**Condensed Statements of Operations**  
**Parent Company Only**

<b>(In thousands)</b>	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
<b>Revenues:</b>			
Net investment income . . . . .	\$ 22,528	\$ 20,834	\$ 17,917
Net gains (losses) on investments and other financial instruments . .	(328)	(150)	2,975
Other income . . . . .	80	49	—
Total revenues . . . . .	22,280	20,733	20,892
<b>Expenses:</b>			
Loss on induced conversion and debt extinguishment . . . . .	51,469	75,075	94,207
Interest expense . . . . .	18,033	29,002	55,768
Total expenses (Note G) . . . . .	69,502	104,077	149,975
Pretax loss from continuing operations . . . . .	(47,222)	(83,344)	(129,083)
Income tax benefit . . . . .	(141,437)	(8,676)	(43,854)
Equity in net income of affiliates . . . . .	26,873	382,921	371,949
Net income from continuing operations . . . . .	121,088	308,253	286,720
Income from discontinued operations, net of taxes . . . . .	—	—	204
Net income . . . . .	121,088	308,253	286,924
Other comprehensive income (loss), net of tax . . . . .	35,480	6,082	(69,962)
Comprehensive income . . . . .	\$ 156,568	\$ 314,335	\$ 216,962

See Supplemental Notes.

**Radian Group Inc.**  
**Schedule II—Financial Information of Registrant**  
**Condensed Statements of Cash Flows**  
**Parent Company Only**

<b>(In thousands)</b>	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Net cash provided by (used in) operating activities, continuing operations . . . . .	\$ (23,654)	\$ 38,902	\$ (128,879)
Net cash provided by (used in) operating activities, discontinued operations . . . . .	—	—	—
Net cash provided by (used in) operating activities . . . . .	<u>(23,654)</u>	<u>38,902</u>	<u>(128,879)</u>
Cash flows from investing activities:			
Proceeds from sales of:			
Fixed-maturity investments available for sale . . . . .	58,007	47,058	—
Equity securities available for sale . . . . .	—	24,992	—
Trading securities . . . . .	—	30,350	—
Proceeds from redemptions of:			
Fixed-maturity investments available for sale . . . . .	60,414	49,578	—
Trading securities . . . . .	—	10,000	—
Purchases of :			
Fixed-maturity investments available for sale . . . . .	(134,456)	(137,431)	(39,667)
Equity securities available for sale . . . . .	—	—	(25,545)
Sales, redemptions and (purchases) of :			
Short-term investments, net . . . . .	210,529	(40,288)	473,350
Other assets, net . . . . .	(1,107)	239	(688)
Capital distributions from subsidiaries . . . . .	924	15,000	113,784
Capital contributions to subsidiaries . . . . .	(21,643)	(1,500)	(182,307)
Acquisition of subsidiaries . . . . .	—	(30,443)	—
(Issuance) repayment of note receivable from affiliate (Note D) . . .	(44)	201,631	(208,527)
Net cash provided by (used in) investing activities . . . . .	<u>172,624</u>	<u>169,186</u>	<u>130,400</u>
Cash flows from financing activities:			
Dividends paid . . . . .	(2,154)	(2,105)	(1,996)
Issuance of long-term debt, net . . . . .	442,163	343,417	343,334
Purchases and redemptions of long-term debt . . . . .	(593,527)	(445,072)	(156,172)
Proceeds from termination of capped calls . . . . .	4,208	—	13,150
Issuance of common stock . . . . .	7,132	717	1,285
Purchase of common shares . . . . .	(6)	(100,188)	(202,000)
Credit facility commitment fees paid . . . . .	(1,993)	—	—
Excess tax benefits from stock-based awards (Note A) . . . . .	—	98	2,228
Net cash provided by (used in) financing activities . . . . .	<u>(144,177)</u>	<u>(203,133)</u>	<u>(171)</u>
Increase (decrease) in cash and restricted cash . . . . .	4,793	4,955	1,350
Cash and restricted cash, beginning of period . . . . .	8,380	3,425	2,075
Cash and restricted cash, end of period . . . . .	<u>\$ 13,173</u>	<u>\$ 8,380</u>	<u>\$ 3,425</u>

See Supplemental Notes.

**Radian Group Inc.**  
**Schedule II—Financial Information of Registrant**  
**Parent Company Only**  
**Supplemental Notes**

**Note A**

The Radian Group Inc. (the “Parent Company”, “we” or “our”) financial statements represent the stand-alone financial statements of the Parent Company. These financial statements have been prepared on the same basis and using the same accounting policies as described in the consolidated financial statements included herein, except that the Parent Company uses the equity-method of accounting for its majority-owned subsidiaries. These financial statements should be read in conjunction with our consolidated financial statements and the accompanying notes thereto.

Certain prior period amounts have been reclassified to conform to current period presentation, including the adoption of an update to the accounting standard for the treatment of restricted cash in the statement of cash flows. See Note 2 of Notes to Consolidated Financial Statements for additional information.

On April 1, 2015, Radian Guaranty completed the sale of Radian Asset Assurance pursuant to the Radian Asset Assurance Stock Purchase Agreement. See Note 18 of Notes to Consolidated Financial Statements for additional information related to discontinued operations.

As a result of our adoption on January 1, 2017 of the update issued by the FASB related to the accounting standards for share-based payment transactions, excess tax benefits are now classified along with other cash flows as an operating activity, rather than separated from other income tax cash flows as a financing activity.

**Note B**

We had restricted cash of \$0.1 million at December 31, 2016 held as collateral for our insurance trust agreement for our health insurance policy. We had no restricted cash at December 31, 2017.

**Note C**

During 2017, the Parent Company made total capital contributions of \$521.0 million to its subsidiaries. This amount included a \$175.0 million contribution to Radian Reinsurance, consisting of \$21.4 million of cash and \$153.6 million of marketable securities, and a \$0.2 million cash contribution to Radian Mortgage Assurance. The Parent Company also made a \$3.1 million capital contribution to Enhance Financial Services Group Inc. in lieu of receiving tax payments due under our tax sharing agreement. We also effectively contributed \$342.7 million to Clayton Group Holdings Inc. to reflect the impairment of our \$300 million intercompany note receivable and \$42.7 million of interest receivable on the intercompany note as of December 31, 2017.

During 2017, the Parent Company received a \$175.0 million dividend from Radian Guaranty, which included \$21.4 million of cash and \$153.6 million of marketable securities, all of which was subsequently contributed to Radian Reinsurance. In addition, the Parent Company liquidated three of its subsidiaries and received liquidating dividends totaling \$26.5 million. This amount reflected liquidating dividends from Radian Mortgage Insurance, Radian Mortgage Reinsurance Company and RDN Investments, Inc. of \$24.9 million, \$1.0 million and \$0.6 million, respectively, and included cash dividends of \$2.7 million, \$0.6 million and \$0.5 million, respectively, and the distribution of deferred and current tax recoverables of \$22.2 million, \$0.4 million and \$0.1 million, respectively. The Parent Company also received tax payments of \$50.7 million from its subsidiaries under our tax sharing agreement.

During 2016, the Parent Company made total capital contributions of \$2.5 million to its subsidiaries. This amount included a cash contribution of \$1.5 million to RDN Investments, Inc. and a \$1.0 million contribution of marketable securities to Clayton Group Holdings Inc. During 2016, the Parent Company purchased Radian Insurance, Radian Mortgage Insurance and Radian Mortgage Assurance from Radian Guaranty for \$19.0 million, \$2.8 million and \$8.6 million, respectively. The purchase price of each subsidiary represented its total statutory capital and surplus as of September 30, 2016.

During 2016, the Parent Company received dividends from its subsidiaries totaling \$40.4 million in cash and marketable securities. This amount included cash of \$15.0 million from Enhance Financial Services Group Inc. and marketable securities from RDN Investments, Inc. of \$25.4 million. In addition, the Parent Company received a dividend from Radian MI Services Inc. of its full investment in Radian Investor Surety Inc., which was valued at \$5.0 million at the date of transfer. The Parent Company also received tax payments of \$51.2 million from its subsidiaries under our tax sharing agreement.

During 2015, the Parent Company made total capital contributions of \$398.3 million to its subsidiaries. This amount included a cash contribution of \$100.0 million to Radian Guaranty, contributions of cash (\$50.0 million) and marketable securities (\$216.0 million) totaling \$266.0 million to Radian Reinsurance, and cash contributions of \$20.0 million, \$12.1 million and \$0.2 million to Radian Mortgage Guaranty Inc., Clayton Group Holdings Inc., and Radian Mortgage Reinsurance Company, respectively.

During 2015, the Parent Company received dividends from its subsidiaries totaling \$446.2 million in cash and marketable securities. This amount included marketable securities of \$216.0 million from Enhance Financial Services Group Inc. and cash of \$15.0 million from Radian MI Services Inc., which were used to partially fund the creation of Radian Reinsurance as part of an approved reorganization of our mortgage insurance subsidiaries. In addition, the Parent Company received a total of \$215.2 million (\$98.7 million in cash and \$116.5 million in marketable securities) from RDN Investments, Inc., to partially fund the acquisition of a Surplus Note from Radian Guaranty (see Note D for additional information). The Parent Company also received tax payments of \$16.0 million from its subsidiaries in 2015 under our tax-sharing agreement.

**Note D**

Accounts and notes receivable included a \$300 million note receivable from Clayton Group Holdings Inc. as of December 31, 2017 and 2016. This represents the original principal amount related to the Senior Notes due 2019, which funded the acquisition of Clayton in June 2014. Interest on the note is payable semi-annually on June 1 and December 1. The interest payment represents coupon interest plus issuance costs (amortized on a straight line basis over the term of the note). The principal is due on June 1, 2019 although, in the event of non-payment, the note terms reflect that the note remains outstanding and continues to accrue interest at the coupon rate. The Services segment has not generated sufficient cash flow to reimburse the Parent Company for its share of its direct and allocated operating expenses and interest expense, and we do not expect that the Services segment will be able to bring its reimbursement obligations current in the foreseeable future as relates to the intercompany note. Therefore, we have recorded an allowance against the outstanding balance of the \$300 million note receivable at December 31, 2017.

Accounts and notes receivable also included, as of December 31, 2017, a \$100 million Surplus Note from Radian Guaranty. In December 2017, the Parent Company transferred \$100 million of primarily marketable securities and a small amount of cash to Radian Guaranty in exchange for a Surplus Note issued by Radian Guaranty. See Note 19 of Notes to Consolidated Financial Statements for additional information related to the Surplus Note.

**Note E**

Other assets remained relatively unchanged as of December 31, 2017, compared to December 31, 2016, primarily as a result of a small net decrease in the intercompany receivable balance related to the reimbursement from the Services segment (See Notes D and G for additional information), offset by increases in other assets. In particular, as disclosed above in Note D, the Services segment has not generated sufficient cash flow to reimburse the Parent Company for its share of its direct and allocated operating expenses and interest expense related to the \$300 million note receivable. Therefore, at December 31, 2017, we recorded an allowance of \$42.7 million against the outstanding balance of the interest receivable. Offsetting the interest receivable allowance was an increase in the balance due related to the Services segment’s share of direct and allocated operating expenses of \$39.9 million. Other assets also includes an \$88.6 million deposit with the IRS. See Note 10 of Notes to Consolidated Financial Statements for additional information related to this “qualified deposit” and the status of the IRS Matter.

**Note F**

During 2017, the Parent Company successfully completed a series of transactions to strengthen its capital position, including reducing its overall cost of capital and improving the maturity profile of its debt. See Notes 12 and 14 of Notes to Consolidated Financial Statements for additional information on our loss on induced conversion and debt extinguishment, long-term debt and capital stock.

At December 31, 2017, the maturities of the principal amount of our long-term debt in future years are as follows:

<u>(In thousands)</u>	
2019.....	\$ 158,623
2020.....	234,126
2021.....	197,661
2024.....	450,000
Total.....	<u>\$ 1,040,410</u>

**Note G**

The Parent Company provides certain services to its subsidiaries. The Parent Company allocates to its subsidiaries expenses it incurs in the capacity of supporting those subsidiaries, including operating expenses, which are allocated based on a percentage of time spent, and interest expense, which is allocated based on relative capital. These expenses are presented net of allocations in the Statements of Operations. Substantially all operating expenses and most of our interest expense, except for discount amortization on our long-term debt, have been allocated to the subsidiaries for 2017, 2016 and 2015.

Amounts allocated to the subsidiaries for expenses are based on actual cost, without any mark-up. The Parent Company considers these charges fair and reasonable. The subsidiaries generally reimburse the Parent Company for these costs in a timely manner, which has the impact of temporarily improving the cash flows of the Parent Company, if accrued expenses are reimbursed prior to actual payment. See Note E for additional information.

The following table shows the components of our Parent Company expenses that have been allocated to our subsidiaries for the periods indicated:

<u>(in thousands)</u>	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Allocated operating expenses . . . . .	\$ 72,764	\$ 56,446	\$ 53,738
Allocated interest expenses . . . . .	44,686	52,092	35,300
Total allocated expenses . . . . .	<u>\$ 117,450</u>	<u>\$ 108,538</u>	<u>\$ 89,038</u>

**Note H**

Net investment income increased in 2017 compared to 2016, primarily due to an increase in the average of the Parent Company’s investment portfolio invested in higher yielding bonds during the year.

Interest expense reflects the discount amortization on our long-term debt, as well as coupon interest attributable to the Convertible Senior Notes due 2019 and the Senior Notes due 2019. The reduction in interest expense in 2017 was primarily attributable to lower expense following the induced conversion and extinguishment of \$21.6 million of our remaining Convertible Senior Notes due 2017 in the second quarter of 2017 and the redemption of the remaining \$68.0 million of our Convertible Senior Notes due 2019 during January 2017.

**Note I**

We and certain of our subsidiaries have entered into the following intercompany guarantees:

- Radian Group and Radian Mortgage Assurance are parties to a guaranty agreement, which provides that Radian Group will make sufficient funds available to Radian Mortgage Assurance to ensure that Radian Mortgage Assurance has a minimum of \$5 million of statutory policyholders’ surplus every calendar quarter. Radian Mortgage Assurance had \$8.7 million of statutory policyholders’ surplus and no RIF exposure as of December 31, 2017.
- To allow our mortgage insurance customers to comply with applicable securities regulations for issuers of ABS (including mortgage-backed securities), we have been required, depending on the amount of credit enhancement we were providing, to provide: (i) audited financial statements for the insurance subsidiary participating in these transactions or (ii) a full and unconditional holding-company level guarantee for our insurance subsidiaries’ obligations in such transactions. Radian Group has guaranteed two structured transactions for Radian Guaranty with approximately \$97.8 million of aggregate remaining credit exposure as of December 31, 2017.
- Radian Group and Radian Guaranty Reinsurance are parties to an Assumption and Indemnification Agreement with regard to Radian Guaranty Reinsurance’s portion of the Deficiency Amounts relating to the IRS Matter. This indemnification agreement was made in lieu of an immediate capital contribution to Radian Guaranty Reinsurance that otherwise would have been required for Radian Guaranty Reinsurance to maintain its minimum statutory policyholders’ surplus requirements in light of the remeasurement as of December 31, 2011 of uncertain tax positions related to the portfolio of REMIC residual interests. See Note E for additional information.

**Radian Group Inc.**  
**Schedule IV—Reinsurance**  
**Insurance Premiums Earned**  
**Years Ended December 31, 2017, 2016 and 2015**

(\$ in thousands)	Gross Amount	Ceded to Other Companies	Assumed from Other Companies	Net Amount	Assumed Premiums as a Percentage of Net Premiums
2017.....	\$ 990,016	\$ 57,271	\$ 28	\$ 932,773	0.00%
2016.....	\$ 999,093	\$ 77,359	\$ 35	\$ 921,769	0.00%
2015.....	\$ 973,645	\$ 57,780	\$ 43	\$ 915,908	0.00%



## Radian Group Inc.

## Ratio of Earnings to Fixed Charges and to Combined Fixed Charges and Preferred Dividends

	2017	2016	2015	2014	2013
<b>Earnings:</b>					
Pretax income (loss) from continuing operations	\$ 346,737	\$ 483,686	\$ 437,829	\$ 407,156	\$ (173,346)
Fixed charges	64,672	82,807	92,758	91,772	75,638
Total earnings available for fixed charges	<u>\$ 411,409</u>	<u>\$ 566,493</u>	<u>\$ 530,587</u>	<u>\$ 498,928</u>	<u>\$ (97,708)</u>
<b>Fixed charges:</b>					
Interest expense, including capitalized interest	\$ 62,761	\$ 81,132	\$ 91,102	\$ 90,464	\$ 74,618
Interest portion of rental expense	1,911	1,675	1,656	1,308	1,020
Total fixed charges	<u>\$ 64,672</u>	<u>\$ 82,807</u>	<u>\$ 92,758</u>	<u>\$ 91,772</u>	<u>\$ 75,638</u>
Ratio of earnings to fixed charges	6.4x	6.8x	5.7x	5.4x	(1)

(1) Ratio coverage less than 1:1 is not presented. For the period ended December 31, 2013, additional earnings of \$173,346 would have been required to achieve a ratio of 1:1.

As defined in Item 503 of Regulation S-K, for purposes of calculating the ratio of earnings to fixed charges, earnings is the amount resulting from adding and subtracting the following items, which are reflected and shown above where applicable to us:

**Add:**

- consolidated pretax income from continuing operations before adjustment for income or loss from equity investees;
- fixed charges, as defined below;
- amortization of capitalized interest;
- distributed income of equity investees; and
- our share of pretax losses of equity investees for which charges arising from guarantees are included in fixed charges.

**Subtract:**

- interest capitalized;
- preference security dividend requirements of consolidated subsidiaries; and
- the noncontrolling interest in pretax income of subsidiaries that have not incurred fixed charges.

**Fixed charges is defined as the sum of:**

- interest expensed and capitalized (from both continuing and discontinued operations);
- amortization of premiums, discounts and capitalized expenses related to indebtedness;
- an estimate of the interest component within rental expense; and
- preference security dividend requirements of consolidated subsidiaries.

We deemed 1/3 of total rental expense to be a reasonable approximation of the interest portion of rental expense. The ratio does not adjust for interest associated with our unrecognized tax benefits, as they are recorded as a component of income tax expense.

We have not issued preferred stock. Therefore, the ratios of earnings to combined fixed charges and preferred stock dividends are the same as the ratios of earnings to fixed charges.

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 33-98106; 333-120519; 333-156279; 333-154275; 333-152624; 333-160266; 333-167009; 333-174428; 333-195934; and 333-217842) and Form S-3 (No. 333-216275) of Radian Group Inc. of our report dated February 28, 2018 relating to the financial statements, financial statement schedules and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP  
Philadelphia, Pennsylvania  
February 28, 2018

## CERTIFICATIONS

I, Richard G. Thornberry, certify that:

1. I have reviewed this Annual Report on Form 10-K of Radian Group Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 28, 2018

/s/ RICHARD G. THORNBERRY

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Richard G. Thornberry  
Chief Executive Officer

I, J. Franklin Hall, certify that:

1. I have reviewed this Annual Report on Form 10-K of Radian Group Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 28, 2018

/s/ J. Franklin Hall

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J. Franklin Hall  
Chief Financial Officer

**Section 1350 Certifications**

I, Richard G. Thornberry, Chief Executive Officer of Radian Group Inc., and I, J. Franklin Hall, Chief Financial Officer of Radian Group Inc., certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) the Annual Report on Form 10-K for the year ended December 31, 2017 (the “Periodic Report”) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and

(2) The information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of Radian Group Inc.

Date: February 28, 2018

/s/ Richard G. Thornberry

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**Richard G. Thornberry**  
Chief Executive Officer

/s/ J. Franklin Hall

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**J. Franklin Hall**  
Chief Financial Officer

The following financial information from Radian Group Inc.'s Annual Report on Form 10-K for the year ended December 31, 2017, is formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheets as of December 31, 2017 and December 31, 2016, (ii) Consolidated Statements of Operations for the years ended December 31, 2017, 2016 and 2015, (iii) Consolidated Statements of Comprehensive Income for the years ended December 31, 2017, 2016 and 2015, (iv) Consolidated Statements of Changes in Common Stockholders' Equity for the years ended December 31, 2017, 2016 and 2015, (v) Consolidated Statements of Cash Flows for the years ended December 31, 2017, 2016 and 2015, and (vi) the Notes to Consolidated Financial Statements.