MOODY'S
INVESTORS SERVICE

CREDIT OPINION
14 July 2020

Update

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RATINGS

Radian Guaranty Inc.

Domicile	PHILADELPHIA, Pennsylvania, United States
Long Term Rating	Baa1
Type	Insurance Financial Strength
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Radian Guaranty Inc.

Debt issuance boosts liquidity and capital adequacy cushion

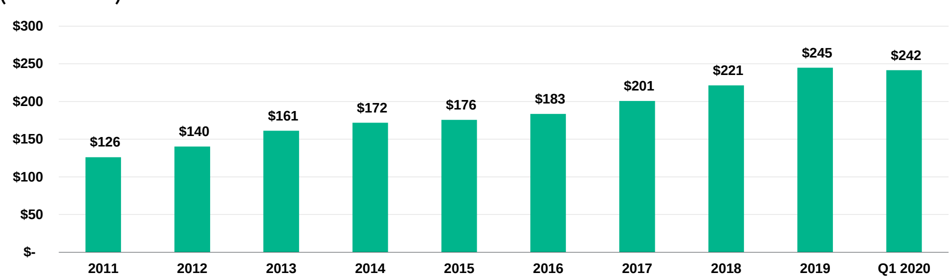
Summary

Our credit view of Radian Guaranty Inc. (Radian Guaranty - insurance financial strength Baa1 stable), the principal operating subsidiary of Radian Group Inc. (Radian Group – senior debt Ba1 stable), reflects its strong position in the US mortgage insurance market, its diverse customer base, comfortable cushion in its compliance with the GSEs' capital standards (PMIERs) and recent actions to extend its debt maturity profile and increase liquidity at the holding company. These strengths are tempered by the uncertainties related to mortgage loan credit performance due to the economic disruption created by the coronavirus pandemic and the commodity-like nature of the mortgage insurance product.

The contraction of the US economy due to coronavirus-related shutdowns has resulted in a significant increase in unemployment rates and deteriorating conditions for the US housing market. While fiscal stimulus measures will mitigate the negative impact, we expect mortgage loan delinquency rates to spike higher in the coming months. The longer-term impact on private mortgage insurers (PMIs) will depend on the length and depth of the economic contraction, as well as the efficacy of mortgage loan payment deferral programs implemented by Fannie Mae and Freddie Mac (the GSEs) in reducing foreclosures, and by extension, ultimate mortgage insurance claims rates.

In May 2020, Radian Group issued $525 million of senior notes to bolster the company's capital and liquidity position as the conditions for mortgage credit become more challenging.

Exhibit 1
Primary insurance in force has nearly doubled since year-end 2011
(USD billions)



Source: Company reports, Moody's Investors Service

Credit strengths

» One of the market leaders in the US private mortgage insurance sector

» Diverse customer base of lenders mitigates some of the challenges in a commodity business

» High quality post-2008 business written enhances profitability and capital growth

» GSE's risk-based capital requirements (PMIERs) increases protection for policyholders and creditors

» Extensive reinsurance program mitigates tail risk in stress scenarios

Credit challenges

» Uncertainties related to mortgage loan credit performance due to the economic disruption created by the coronavirus pandemic

» Lack of unrestricted dividend capacity (though does have an interest and expense sharing agreement)

» Mortgage insurance is largely a commodity business

» Sector's fortunes are greatly influenced by lenders, the GSEs, public policy decisions, and other uncontrollable variables, including competition from the FHA and VA

Outlook

The outlook for the ratings of Radian Group and its affiliates is stable. Over the coming months, the company's credit profile will be influenced by a number of factors, including: projections of unemployment rates once the economy re-opens, delinquency rates on its insured mortgage loans, the percentage of delinquent loans that ultimately cure or are modified and the path of US home prices. Our base case economic assumptions consider a year-end 2020 unemployment rate in the high single digit percentage range and for US home prices to modestly increase during 2020 as a whole, followed by a modest decline in prices during 2021. New economic data and forecasts deviating materially to the downside from these assumptions would pressure the credit profile of the MI sector, as well as that of Radian Group and Radian Guaranty.

Factors that could lead to an upgrade

Given the company's business and financial profile and the uncertainty related to key drivers of mortgage credit performance in the current economic downturn, there is unlikely to be an upgrade of the ratings over the near to medium term. However, the following factors could positively influence the firm's credit profile:

» More comprehensive reinsurance coverage on its entire insured portfolio

» Adjusted financial leverage in the 15% range

» Maintaining its top-tier market position in the US mortgage insurance market.

» Sustained PMIERs compliance with the maintenance of a comfortable capital adequacy buffer

Factors that could lead to a downgrade

» Non-compliance with PMIERs

» Decline in shareholders' equity (including share repurchases) by more than 10% over a rolling twelve month period

» Deterioration in the parent company's ability to meet its debt service requirements

» Adjusted financial leverage above 25%

Key Indicators

Exhibit 2

Radian Guaranty Inc.
(USD Millions)

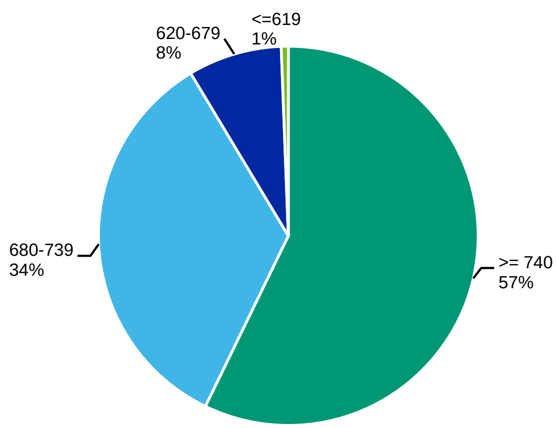
Radian Guaranty Inc. [1]	2019	2018	2017	2016	2015
New Insurance Written	71,327	56,547	53,905	50,530	41,411
Total Primary Insurance in Force	240,558	221,443	200,724	183,450	175,584
Total Primary Risk in Force	60,921	56,728	51,288	46,741	44,627
Net Income	672	606	121	308	287
Total Shareholders' Equity	4,049	3,489	3,000	2,872	2,497
PMIERs Sufficiency %	129%	121%	116%	105%	NA
Moody's Adjusted Ratios					
Avg. NIW as a % of Total Industry NIW	11.4%	11.5%	10.6%	9.7%	9.1%
Prime loans % RIF	98.0%	97.4%	96.6%	95.1%	93.9%
Client Concentration	12.6%	5.3%	6.6%	8.7%	11.3%
Geographic Concentration	26.7%	28.2%	27.6%	26.9%	26.8%
Adjusted Risk to Capital	13.5x	14.4x	14.0x	16.5x	18.2x
Return on Capital (GAAP)	14.0%	13.9%	3.0%	7.9%	8.1%
Combined Ratio (SAP) [2]	43.7%	41.0%	50.4%	60.4%	49.3%
Cash Flow Coverage	0.0x	0.0x	0.0x	0.0x	0.0x
Adjusted Financial Leverage	18.9%	24.2%	26.5%	28.0%	33.7%
Total Leverage	20.2%	25.6%	26.5%	28.0%	33.7%

[1] Information based on US GAAP financial statements of Radian Group Inc. as of Fiscal YE December 31
[2] Information based on SAP financial statements of Radian Guaranty Inc. as of Fiscal YE December 31
Source: Company Reports, Moody's Investors Service

Profile

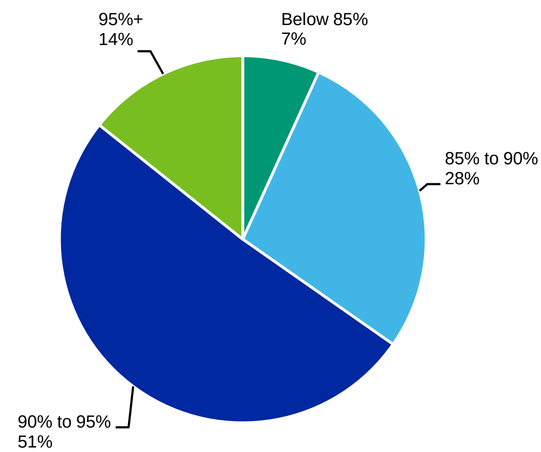
Radian Group is a leading provider of private mortgage insurance in the United States, primarily through Radian Guaranty. The company also provides risk management products and real estate services to financial institutions. At Q1 2020, Radian had approximately $242 billion of direct primary insurance in force and shareholders' equity of approximately $3.9 billion.

Exhibit 3
Primary risk in force by FICO score: Q1 2020



Source: Company reports, Moody's Investors Service

Exhibit 4
Primary risk in force by LTV ratio: Q1 2020



Source: Company reports, Moody's Investors Service

Detailed credit considerations

Moody's rates Radian Guaranty Baa1 for insurance financial strength, which is in line with the adjusted scorecard-indicated outcome produced by Moody's insurance financial strength rating scorecard.

Insurance financial strength rating

The key factors currently influencing the ratings and outlook are:

Market position: First tier market position and diverse customer base

Radian Guaranty's A score for market position reflects its strong market presence in the US mortgage insurance market. During 2019, Radian Guaranty's private MI market share was approximately 18.6% (2018: 19.4%), which places Radian Guaranty in the first tier of US mortgage insurers. Radian Guaranty has a diverse customer base of lenders, including many small and regional lenders that are sometimes more flexible in their dealings with insurers than the larger banks and mortgage lenders.

Radian's Mortgage and Real Estate Services business segment provides outsourced services, information-based analytics and specialty consulting for buyers and sellers of, and investors in, mortgage loans, real estate-related loans and securities and other asset-backed securities. In Moody's opinion, these operations complement Radian's MI business and provide the firm with useful insights into current housing and real estate market conditions.

Housing market attributes: Economic slowdown creates challenges for US housing market

Based on the economic downturn caused by the coronavirus pandemic, we view this rating factor to be more appropriately positioned at Baa on an adjusted basis rather than the A unadjusted score. We expect elevated levels of unemployment and moderate declines in home prices to weigh on mortgage credit conditions over the near to medium term.

I. Demand for mortgage insurance

The private mortgage insurance (PMI) industry is well established in the US with PMIs benefiting from the GSEs' requirement, under their federal charter, to use credit enhancement on mortgages with loan-to-value (LTV) ratios in excess of 80%. During 2019, the PMI industry's market share of insured loans was approximately 46%, up from 45% during 2018. While pre-crisis PMI market share peaked at 77% during 2007, this business included higher risk loans that are no longer within the risk appetite of the PMIs.

While we don't expect major changes to the current US housing finance system under contemplated housing market reforms, any changes that result in a significantly narrower role for the GSEs would adversely impact the core franchises of PMIs. Additionally, the PMIs face competition from other types of mortgage credit products that will require the PMIs to adapt and evolve over time. While the timing and extent of housing finance reform could affect demand for mortgage insurance over the longer term, the PMIs currently benefit from the slow pace of GSE reform, which maintains the current status quo.

The GSE capital standards under PMIERs require PMIs to hold significantly more capital relative to their risk-in-force than was the case under prior GSE capital requirements, or relative to capital levels required by state insurance regulators. While the PMIERs financial requirements are stringent, they provide a standardized risk-based approach to capital adequacy, and position the PMIs as viable counterparties and providers of private capital to the US housing finance market. Overall, we consider the PMIERs to be credit positive for the PMI sector.

II. Generic loan attributes

Overall, we consider the US mortgage market to be healthy, due to continued strong mortgage underwriting standards, the partial recourse nature of mortgage lending and strong loan servicing practices. Since the financial crisis, US PMIs have been writing business almost exclusively in the prime, first-lien segment of the mortgage market. We expect underwriting standards to remain prudent, though they have loosened somewhat over the past several years.

Insured mortgage loans in the US are typically long-term, fixed-rate products with partial recourse to the borrower. While residential mortgage loans in the US are secured by the underlying property, lenders generally have no recourse beyond the property itself. The mortgage insurers also insure a material amount of highest LTV loans, though their >95% LTV new production has greatly declined since 2009. Historically, exposure to the highest LTV loans has made mortgage insurers more vulnerable to housing downturns.

III. Housing market conditions

The rapid and widening spread of the coronavirus and the deteriorating global economic outlook will weigh on credit conditions during 2020. The contraction of US economy has resulted in a significant increase in unemployment rates and deteriorating conditions for the US housing market. While fiscal stimulus measures will mitigate the negative impact, we expect mortgage loan delinquency rates to increase significantly. The longer-term impact on mortgage insurers will depend on the length and depth of the economic contraction and its impact on housing prices, as well as the efficacy of mortgage loan payment and foreclosure forbearance programs implemented by Fannie Mae and Freddie Mac on reducing ultimate mortgage insurance claims rates. Unemployment rates remaining above 10% for an extended period or peak-to-trough house price declines of greater than 15% could lead to negative ratings pressure for most of the US mortgage insurers.

Despite the near term challenges facing the sector, mortgage insurers are expected to benefit from certain demographic factors longer term. The below-trend homeownership rate, particularly among Millennials, has resulted in a build-up of potential homeowners and an expected pent-up demand for homes. An expected rebound in the US economy in late 2020 and into 2021, with improved prospects for employment and the continued availability of mortgage credit, are key factors that could contribute to more favorable credit conditions for the US housing market.

Capital adequacy: Recent debt offering boosts capital position

Radian Guaranty's risk-adjusted capital adequacy has improved over the past several years as the company's higher risk legacy exposures amortize. The company has made significant use of reinsurance to manage its capital requirements under the PMIERs, including three issuances of insurance-linked notes (ILNs) totaling approximately $1.5 billion and has also sourced additional risk transfer protection through excess of loss and quota-share coverage in the traditional reinsurance market. Through these arrangements, Radian has reinsurance covering nearly all of its business written between 2917 and 2019, providing significant capital resources to absorb losses during periods of elevated mortgage credit losses.

At Q1 2020, Radian Guaranty had PMIERs available assets of approximately $4.1 billion vs. PMIERs required assets of $2.9 billion, resulting in a solid PMIERs sufficiency ratio of approximately 138%. The firm also maintains strong liquidity at the holding company, which after the firm's $525 million debt offering was in excess of $1 billion. These funds could be downstreamed to Radian Guaranty to increase available assets at the operating company for PMIERs compliance purposes.

Profitability: Economic downturn will hurt profitability

During 2019, Radian reported GAAP net income of approximately $672 million (2018: $606 million). The company's net income return on capital during 2019 was 14%. During Q1 2020, Radian reported net income of $140, down from $171 million in the prior year period due to higher insured losses and realized losses on investments and other financial instruments.

Looking forward to the remainder of 2020 and into 2021, we expect profitability to be adversely impacted by higher delinquency rates arising from the current economic contraction, which has taken the US unemployment rate to its highest level since the Great Depression. However, under our base case assumptions, we think Radian will continue to report net underwriting profits, as the firm's reinsurance program protects earnings and capital under a range of stress scenarios.

Due to the challenging conditions for mortgage credit over the near to medium term, we have placed the adjusted factor score for profitability at Baa, lower than the unadjusted A factor score. Additionally, we note that Radian has recorded significant goodwill impairments related to the company's Mortgage and Real Estate Services segment in recent years, which has been a drag on reported profitability.

Financial flexibility: May 2020 debt raise reverses deleveraging trend, but liquidity is strong

Over the past several years, Radian has methodically improved its financial flexibility profile by reducing financial leverage and extending it debt maturities. In May 2020, Radian Group issued $525 million of 5-year senior notes to boost its capital and liquidity position. Pro forma for the new debt, Radian's Q1 2020 adjusted financial leverage ratio was approximately 27.6%, up from 18.9% at year-end 2019. Radian's next debt maturity is not until 2024. At the current rating level, there is limited headroom for additional debt in the capital structure.

Radian Guaranty and Radian Reinsurance are both members of the FHLB and use the borrowing facility to purchase additional investment securities and manage liquidity. As of Q1 2020, there were approximately $174 million of FHLB advances outstanding.

Liquidity analysis

Radian Guaranty currently has no unrestricted dividend capacity due to its large negative unassigned surplus balance (Q1 2020: -$820 million). However, the firm is able to access funds at the operating company outside of ordinary dividends through a tax, interest and expense sharing agreement. As of March 31, 2020, Radian Group had immediately available unrestricted cash and liquid investments of approximately $648 million and also had access to a $267.5 million revolving credit facility (currently undrawn). The $525 million debt offering completed in May 2020 provides an additional boost to holding company liquidity. Radian's current run-rate annual interest expense is approximately $77 million.

ESG considerations

Environmental considerations

In line with our general view for the mortgage insurance sector, Radian has low exposure to environmental risks. While catastrophic events can cause a significant increase in mortgage loan delinquencies in affected areas post-event, the significant majority of these defaults typically cure within 6 to 12 months, as has been historically observed with past MI default activity following major hurricanes and floods. We note that US mortgage insurers are not responsible for physical damage to properties arising from catastrophes, as the contractual language in mortgage insurance master policies states that the mortgage insurer may deny a claim if physical damage to the property is the primary cause of the default on the mortgage loan. As a result, the owner of the mortgage loan (typically Fannie Mae or Freddie Mac) retains the risk of mortgage defaults resulting from uninsured or underinsured property losses arising from natural disasters.

Social considerations

Mortgage Insurers have low overall exposure to social risks. Primary exposure is to the US housing sector that could be impacted by demographic and societal trends, mitigated by market diversification. These financial institutions are highly regulated and reliant on handling customer data and privacy, customer relations are important. Human capital risks can be significant, primarily related to the recruitment and retention of key employees. Changes in regulatory rules and practices within a market, as well as, potential changes in regulation or taxation of its products could affect the benefits of mortgage insurance as a credit enhancement, or lead to a restructuring of segments of the industry. For example, in the US, the regulatory requirement for the government-sponsored entities (GSEs) to credit enhance loans with loan-to-value ratios (LTV) above a certain threshold is a key driver for mortgage insurance demand.

Governance considerations

Like all other corporate credits, the credit profile of Radian is influenced by a wide range of governance-related issues, relating to financial, managerial, ownership or other factors, all of which can be influenced by regulatory oversight and intervention. The company has strong enterprise risk management processes and internal financial controls that mitigate various governance risks. Under the oversight of the company's board of directors, the company's management team has a strong performance track record and maintains good relationships with regulators and investors. Radian Group's relatively simple organizational structure and focused business model ease these governance and risk management processes and procedures. Radian operates within a strong regulatory environment, being overseen by the Pennsylvania Department of Insurance, which has substantial experience regulating mortgage insurers, as well as subject to operational and financial standards under the GSE's PMIERs.

Structural considerations

The spread between Radian Group's Ba1 senior unsecured debt rating and the Baa1 IFS rating of Radian Guaranty is three notches, which is consistent with Moody's typical notching practices for U.S. insurance holding company structures.

Methodology and scorecard

Exhibit 5

Radian Guaranty Inc.

Financial Strength Rating Scorecard [1][2]	Aa	A	Baa	Ba	<Ba	Score	Adjusted Score
Factor 1: Market Position (20%)						**A**	**A**
Avg. NIW as a % of Total Private & FHA NIW			11.4%				
Prime Loans (% of RIF)	98.0%						
Client Concentration		12.6%					
Geographic Concentration		26.7%					
Factor 2: Housing Market Attributes (25%)						**A**	**Baa**
Demand for Mortgage Insurance		x					
Generic Loan Attributes		x					
Housing Conditions		x					
Factor 3: Capital Adequacy (30%)						**A**	**Baa**
Adjusted Risk-to-Capital Ratio		13.5x					
Factor 4: Profitability (15%)						**A**	**Baa**
Return on Capital (after-tax) [3]		9.4%					
Combined Ratio		48.9%					
Factor 5: Financial Flexibility (10%)						**Baa**	**Baa**
Cash Flow Coverage [3]					0.0x		
Adjusted Financial Leverage [3]			18.9%				
Total Leverage [3]			20.2%				
Operating Environment						Aaa - A	Aaa - A
Preliminary Standalone Outcome						**A3**	**Baa1**

[1] Information based on SAP financial statements as of Fiscal YE December 31
[2] The Scorecard rating is an important component of the company's published rating, reflecting the stand-alone financial strength before other considerations (discussed above) are incorporated into the analysis
[3] Information based on US GAAP financial statements of Radian Group Inc. as of Fiscal YE December 31
Source: Company Reports, Moody's Investors Service

Ratings

Exhibit 6

Category	Moody's Rating
RADIAN GUARANTY INC.	
Rating Outlook	STA
Insurance Financial Strength	Baa1
RADIAN GROUP INC.	
Rating Outlook	STA
Senior Unsecured	Ba1
Subordinate Shelf	(P)Ba2
Senior Unsec. Shelf	(P)Ba1
Pref. Shelf	(P)Ba3

Source: Moody's Investors Service

Moody's related publications

Sector Research

- Mortgage Insurance - US: Mortgage insurers brace for higher delinquencies as unemployment rate spikes (June 2020)
- Mortgage Insurance - US: Mortgage ILNs protect earnings, capital as coronavirus-related delinquencies increase (June 2020)
- Mortgage Insurance – US: Refinance activity drives significant growth in Q4 2019 (March 2020)
- Mortgage Insurance – US: US housing finance reform plans have limited impact on private mortgage insurers (September 2019)

Industry Outlook

- Mortgage Insurance - US: 2020 outlook shifts to stable on moderating economic conditions

Rating Methodology

- Mortgage Insurers Methodology (November 2019)

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

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