MOODY'S INVESTORS SERVICE

CREDIT OPINION
14 June 2023

Update

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RATINGS

Radian Group Inc.

Domicile	Wayne, Pennsylvania, United States
Long Term Rating	Baa3
Type	Senior Unsecured - Dom Curr
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 Group Inc.

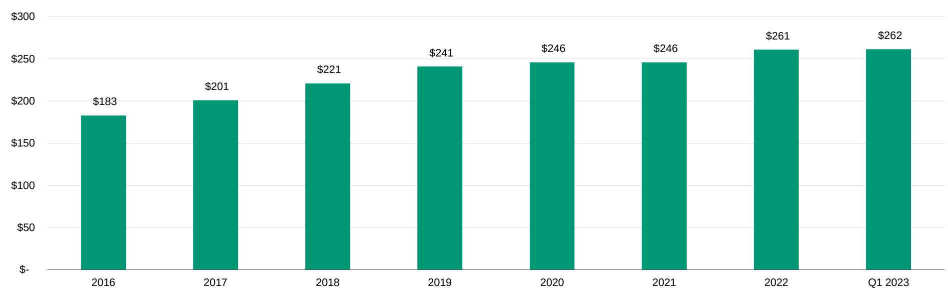
Profitability remains strong despite more challenging market conditions

Summary

Our credit view of Radian Group Inc. (Radian Group – senior debt Baa3 stable) and its principal operating subsidiary Radian Guaranty Inc. (Radian Guaranty - insurance financial strength A3 stable), reflect the group's strong position in the US mortgage insurance market, its diverse customer base, comfortable cushion in its compliance with the GSEs' capital standards (PMIERs) and good financial flexibility due to its strong liquidity at the holding company. These strengths are tempered by the commodity-like nature of the mortgage insurance product and the fact that the MI sector's fortunes are greatly influenced by lenders, the GSEs, public policy decisions, and other uncontrollable variables, including competition from government-sponsored mortgage insurers, as well as higher financial leverage relative to its peers.

Although the sharp rise in mortgage interest rates over the past year has reduced housing affordability, which in turn will likely cause a decline in house prices, unemployment remains low and the credit quality of insured portfolios remains high. We expect good profitability from the MI sector as high persistency rates and higher investment income help offset the potential for higher default rates in the months ahead. Capital adequacy remains solid, supported by the significant use of reinsurance, which will protect capital if the economic downturn intensifies.

Exhibit 1
Radian Group's primary insurance in force growing on higher persistency
Primary Insurance in force (USD Bil.)



Source: Company reports, Moody's Investors Service

Credit strengths

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

» High quality new business written enhances profitability and capital growth

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

» Comprehensive reinsurance program mitigates tail risk in stress scenarios

» Strong holding company liquidity

Credit challenges

» Declining home prices in certain markets could lead to an increase in mortgage defaults

» 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

» Higher financial leverage relative to its peers

Outlook

The outlook for the ratings is stable. We expect Radian's profitability to remain strong in 2023 as increasing persistency rates and higher interest rates boost revenues even as mortgage loan origination volumes are expected to trend lower.

Factors that could lead to an upgrade

» Adjusted financial leverage in the 15% to 20% range

» Continued maintenance of comprehensive reinsurance program

» Sustained maintenance of PMIERs sufficiency ratio at 170%, or above

» Improved profitability in the homegenius segment.

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

» Significant weakening of underwriting standards or pricing

» Adjusted financial leverage above 25%

Key Indicators

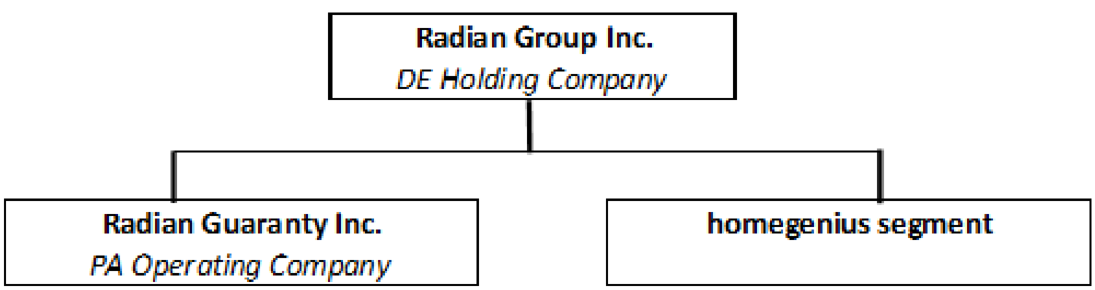
Exhibit 2
Radian Group Inc.

Radian Group Inc. [1][2]	2022	2021	2020	2019	2018
As Reported (US Dollar Millions)					
New Insurance Written (NIW)	67,954	91,830	105,024	71,327	56,547
Insurance in Force	260,994	245,972	246,144	240,558	221,443
Risk in Force (RIF)	66,334	61,158	60,937	61,235	57,053
Net Risk in Force	56,701	53,182	52,067	51,157	47,517
Net income (loss) attributable to common shareholders	743	601	394	672	606
Total Shareholders Equity	3,919	4,259	4,284	4,049	3,489
Regulatory Capital	5,208	5,063	4,304	4,109	3,633
PMIERs Sufficiency Ratio	145.2%	162.4%	139.8%	128.5%	119.5%
Moody's Adjusted Ratios					
Avg. NIW as % Total Industry NIW (2 yr. avg.)	10.4%	10.7%	11.4%	11.4%	11.0%
% Prime loan RIF	99.3%	98.4%	98.1%	98.0%	97.5%
Geographic Concentration	24.4%	24.7%	26.1%	27.4%	28.2%
Client Concentration	18.5%	19.6%	16.6%	12.9%	5.3%
Adjusted Risk to Capital	11.1x	11.1x	12.9x	13.4x	14.3x
Return on Average Capital (ROC)	13.4%	10.5%	7.3%	14.0%	13.9%
Combined Ratio (1 yr avg)	6.8%	36.0%	71.4%	40.5%	40.5%
Adjusted Financial Leverage	27.2%	25.6%	25.4%	18.9%	24.2%
Total Leverage	29.2%	27.5%	27.6%	21.1%	25.6%
Cash Flow Coverage	NA	NA	NA	NA	0.0x

[1] Information based on US GAAP financial statements as of the fiscal year ended 31 December. [2] Certain items may have been relabeled and/or reclassified for global consistency.
Source: Moody's Investors Service

Profile

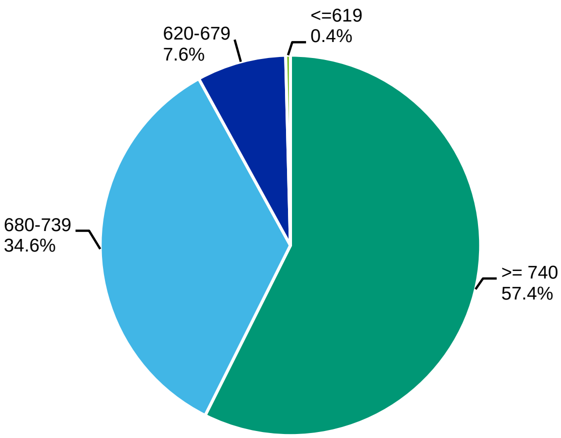
Exhibit 3
Simplified organizational structure



Source: Company reports, Moody's Investors Service

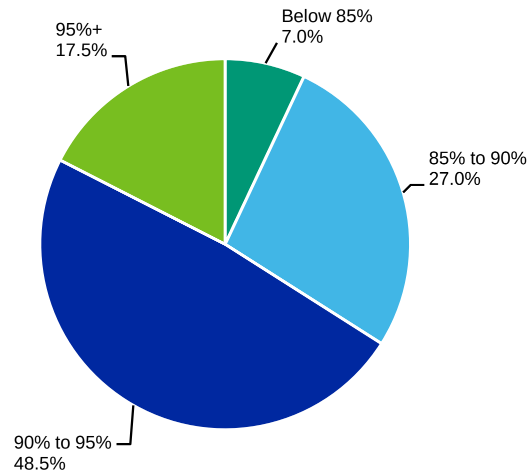
Radian Group is a leading provider of private mortgage insurance in the United States, primarily through Radian Guaranty. The company also provides risk management products and real estate services to financial institutions through its homegenius segment. At Q1 2023, Radian had approximately $261 billion of primary insurance in force and shareholders' equity of approximately $4.1 billion.

Exhibit 4
Primary risk in force by FICO score (Q1 2023)



Source: Company reports

Exhibit 5
Primary risk in force by LTV ratio (Q1 2023)



Source: Company reports

Detailed credit considerations

Moody's rates Radian Guaranty A3 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: Strong market position and diverse customer base of lenders

Radian Guaranty's A score for market position, both on an adjusted and unadjusted basis, reflects its strong market presence in the US mortgage insurance market. During 2022, Radian Group's private MI market share was approximately 16.8% (2021: 15.7%). Given Radian's strong market presence, we expect the firm's market share to move up and down within a reasonable range of 16%.

Radian's homegenius segment offers an array of title, real estate and technology products and services to consumers, mortgage lenders, mortgage and real estate investors, the GSEs, real estate brokers and agents. Despite their current limited contribution to Radian's overall earnings, 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: Higher mortgage interest rates are straining housing affordability; Pullback in home prices expected

We assign the same score (currently A on an unadjusted basis and Baa on an adjusted basis) for this rating factor to all of our rated US mortgage insurers. The US housing market faces challenging macroeconomic conditions, but we expect the impact to be moderate for mortgage credit. Although the sharp rise in mortgage interest rates over the past year has reduced housing affordability, which in turn will likely cause a decline in house prices, unemployment remains low and the credit quality of insured portfolios remains high. The lack of housing supply to meet projected demand is expected to moderate the extent of home price declines over the next couple of years.

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 2022, the PMI industry's market share of insured mortgage loans was approximately 48%, up from 44% during 2021. While pre-financial 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.

We don't expect major changes to the current US housing finance system over the next few years, which is credit positive for the US PMIs, which benefit from the current status quo. Over the longer term, we continue to believe that the PMIs will face competition from other types of mortgage credit enhancement products that will require the PMIs to adapt and evolve over time.

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. The PMIERs financial requirements are stringent, but 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. In aggregate, 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 on high quality prime, first-lien conforming mortgages. We expect underwriting standards to remain prudent, though they have historically loosened following periods of strong mortgage loan performance.

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 significant portion of the 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 market downturns.

III. Housing market conditions

US economic conditions have shifted as the Fed's tightening of monetary policy to fight inflation has roiled the US housing market. As mortgage interest rates have spiked to levels not seen since before the 2008-09 financial crisis, home sales and mortgage originations have slowed significantly and strained housing affordability for buyers. Home prices, which moved sharply higher over the past couple of years, are now starting to move downward and are vulnerable to further declines. US unemployment remains low, although we expect an uptick to levels above 4% as slowing economic growth impacts labor markets. Despite these more challenging economic conditions, we expect the impact on mortgage credit to be moderate over the next 12 to 18 months.

Following very strong house price appreciation in 2020 and 2021, home prices are softening as higher mortgage interest rates have reduced housing affordability and slowed demand. Our baseline expectation is for home prices to sustain a peak-to-trough decline of around 10% over the next couple of years, with higher losses in markets that had well-above average home price gains post-pandemic. However, housing inventory remains low and the "lock-in" effect of existing homeowners with very low fixed rate mortgages is likely to constrain the supply of homes put up for sale. Continued favorable demographic trends will keep demand high enough to avoid an extended pullback in home prices. Longer-term, these demographic trends, which include a below-trend homeownership rate (particularly among Millennials), creates a pent-up demand for homes as these individuals and families enter the typical age range of first-time homebuyers.

Capital adequacy: Capital adequacy benefits from substantial reinsurance protection

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 six issuances of insurance-linked notes (ILNs) through its Eagle Re program totaling approximately $2.9 billion ($1.9 billion of coverage outstanding at Q4 2022) 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 excess of loss reinsurance covering a substantial majority of its business written between 2017 and 2021, providing significant capital resources to absorb losses during periods of elevated mortgage credit losses. The company also has quota-share reinsurance coverage on its 2022 vintage loans and those written during the first half of 2023.

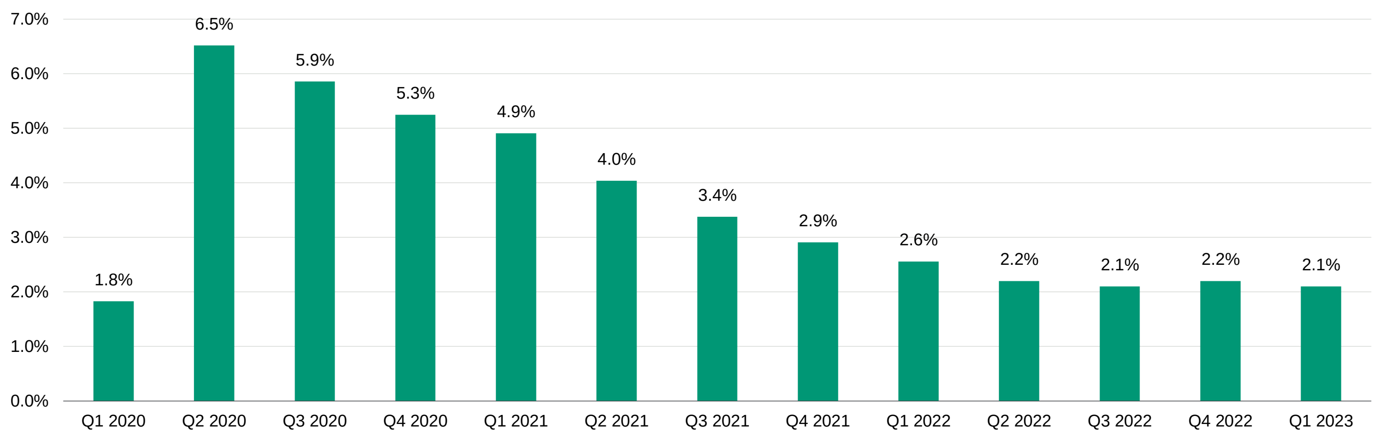
At 1Q 2023, Radian Guaranty had PMIERs available assets of approximately $5.7 billion vs. PMIERs required assets of approximately $3.9 billion, resulting in a PMIERs sufficiency ratio of approximately 144%. The firm also maintains strong liquidity at the holding company, with cash and invested assets of approximately $956 million as of March 31, 2023. These funds could be downstreamed to Radian Guaranty to increase available assets at the operating company for PMIERs compliance purposes, if needed.

Profitability: Profitability metrics lag peers on impairment charges; improvement expected

For the five years ended 2022, Radian Group's average net income return on capital was 11.8%, which is low relative to the peer group, as Radian Group has recorded significant losses on extinguishment of debt and goodwill impairments related to the company's former Real Estate Services segment in recent years.

During Q1 2023, Radian Group reported GAAP net income of approximately $158 million (Q1 2022: $181 million). Results were positively impacted by lower incurred losses, partially offset by lower net premiums earned. We expect the company's profitability to remain strong into 2023 as increasing persistency rates and higher interest rates boost revenues even as mortgage loan origination volumes are expected to trend lower.

Exhibit 6
Radian's delinquency rate has flattened out at around 2%



Source: Company reports, Moody's Investors Service

At 1Q 2023, Radian Guaranty's delinquent loan inventory was approximately 2.1% of outstanding loans, which is a bit higher than pre-pandemic levels, but down from around 6.5% during Q2 2020 (Exhibit 6). It appears that the declining trend in the delinquency rate has flattened out at levels around 2%.

Financial flexibility: Elevated financial leverage relative to peers, but liquidity is strong

In the years leading up to 2020, Radian Group had methodically improved its financial flexibility profile by reducing financial leverage and extending its debt maturities. However, following the outbreak of the coronavirus pandemic, Radian Group issued $525 million of 5-year senior notes in May 2020 to boost its capital and liquidity position. As of December 31, 2022, Radian Group's adjusted financial leverage ratio was approximately 27.2%, up from 25.6% at year-end 2021, due largely to the adverse impact of unrealized losses on investments on equity capital. Over time, we expect the firm to reduce its adjusted financial leverage to levels closer to 20%.

Radian Group's next debt maturity is in 2024, when $450 million of senior notes mature. Radian Guaranty is a member of the FHLB and uses the borrowing facility for general cash management purposes and to purchase additional investment securities. As of March 31, 2023, there were approximately $113 million of FHLB advances outstanding. While Radian Group's financial leverage is higher than most of its peers, we believe the company's very strong holding company liquidity serves as an offset to the higher financial leverage.

We raise the adjusted score for financial flexibility to Baa from the unadjusted score of Ba to account for the firm's tax, interest and expense sharing agreement and recently re-established unrestricted dividend capacity.

Liquidity analysis

With the company's unassigned surplus balance positive at year-end 2022, Radian Guaranty may now declare ordinary dividends to the holding company. During 2023, the company expects Radian Guaranty to upstream $300 to $400 million of dividends to Radian Group. Going forward, we expect ordinary dividend capacity to generally be in-line with Radian Guaranty's statutory earnings. Additionally, the firm is able to access funds at the operating company outside of ordinary dividends through a tax, interest and expense sharing agreement.

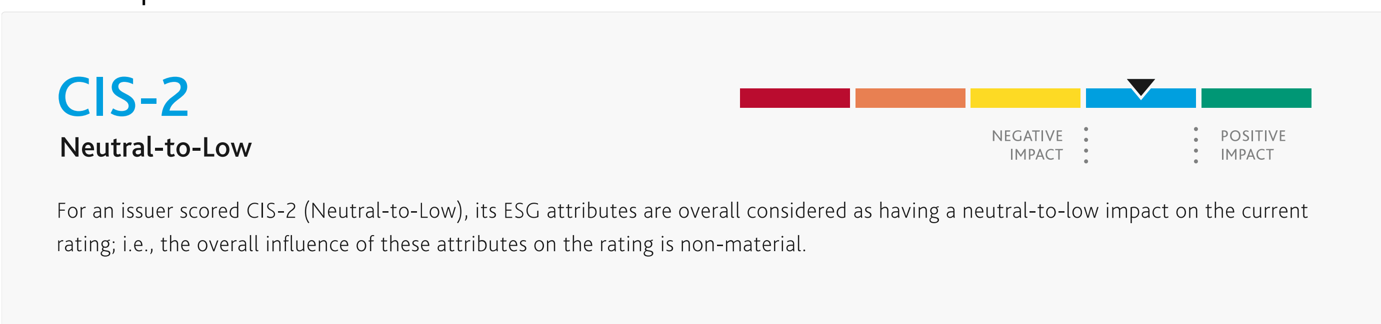
As of March 31, 2022, Radian Group had immediately available unrestricted cash and liquid investments of approximately $956 million and also had access to a $275 million revolving credit facility (currently undrawn).

During 2022, Radian's interest expense was $84 million. The company also paid $137 million in common shareholder dividends and repurchased $400 million of its common stock.

ESG considerations

Radian Group Inc.'s ESG Credit Impact Score is CIS-2

Exhibit 7
ESG Credit Impact Score



Source: Moody's Investors Service

Radian Group Inc.'s **CIS-2** indicates that ESG considerations are not material to the rating. Consistent with other mortgage insurers, Radian Group has low exposure to environmental risks, but does have moderate exposure to various social risks, including customer relations risks related to data security and demographic and societal trends including demand for housing and governmental public policies related to the US housing finance system. The company's strong risk management and governance framework, along with good capitalization, are important mitigants to the firm's environmental and social risks.

Exhibit 8
ESG Issuer Profile Scores

Source: Moody's Investors Service

Environmental

Radian Group's exposure to environmental risk is low. The company provides insurance policies that cover mortgage loan payment defaults on residential mortgages, but such policies do not cover physical damage to properties arising from catastrophic events, such as hurricanes and floods. In addition, the company does not underwrite risks arising from natural disasters or other direct manifestations of physical climate risks or pre-existing environmental conditions. Radian Group's direct exposure to carbon transition risk is limited because of the firm's moderate asset leverage and the relatively short duration of its fixed income portfolio.

Social

Radian Group faces moderate social risk. The firm faces customer relations risks related to the security of personal data and cyber risk. Like other mortgage insurers, Radian Group is exposed to various demographic and societal trends including the demand for housing and housing affordability, as well as potential changes to governmental public policies and regulation of the US housing finance system.

Governance

Radian Group faces low governance risks. The company's governance and financial disclosure standards are high and in-line with those of its publicly-traded peers. Radian Group has a clear corporate and financial strategy, which has led to favorable long-term returns at the company. Additionally, the firm's underwriting and risk management strategies are designed to protect its capital base during adverse economic environments with high mortgage loan default activity. Radian Group's focused business model and simple organizational structure result in reduced operational and governance complexity.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Structural considerations

The spread between Radian Group's Baa3 senior unsecured debt rating and the A3 IFS rating of Radian Guaranty is three notches, which is consistent with Moody's typical notching practices for U.S. insurance holding company structures.

Rating methodology and scorecard factors

Exhibit 9

Radian Group Inc.

Financial Strength Rating Scorecard [1][2]	Aaa	Aa	A	Baa	Ba	B	Caa	Score	Adj Score
Business Profile								A	Baa
Market Position (20%)								A	A
- Avg. NIW as a % of Total Industry NIW				10.4%					
- Prime Loans (% of RIF)		99.3%							
- Client Concentration				18.5%					
- Geographic Concentration			24.4%						
Housing Market Attributes (25%)								A	Baa
- Demand for mortgage insurance			X						
- Generic loan attributes			X						
- Housing conditions				X					
Financial Profile								A	A
Capital Adequacy (30%)								Aa	A
- Adjusted Risk-to-Capital Ratio		11.1x							
Profitability (15%)								Aa	A
- Return on Capital – 5 yr. avg.			11.8%						
- Combined Ratio – 5 yr. avg.		39.0%							
Financial Flexibility (10%)								Ba	Baa
- Cash Flow Coverage – 5 yr. avg.						0.0x			
- Adjusted Financial Leverage				27.2%					
- Total Leverage				29.2%					
Operating Environment								Aaa - A	Aaa - A
Preliminary Standalone Outcome								A2	A3

[1] Information based on US GAAP 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.

Source: Moody's Investors Service

Ratings

Exhibit 10

Category	Moody's Rating
RADIAN GROUP INC.	
Rating Outlook	STA
Senior Unsecured	Baa3

Source: Moody's Investors Service

Moody's related publications

Sector Research

» Housing and Housing Finance - US: Housing in flux as high rates, prices hit demand; owners with low rates stay put (April 2023)

» Mortgage Insurance - US: Profitability remains high as housing market begins to cool (September 2022)

» Mortgage Insurance - US: Improved profitability in 2021 as refinancings and delinquencies slow (March 2022)

» Mortgage Insurance - US: Refis slow but new insurance still grows in Q2; delinquencies in decline (August 2021)

» Mortgage Insurance - US: Refis drive growth in Q4; ultimate losses on delinquent loans still uncertain (March 2021)

» 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)

Industry Outlook

» Mortgage Insurance - US: 2023 outlook is stable as strong capital adequacy offsets higher economic risks

Rating Methodology

» Mortgage Insurers Methodology (August 2022)

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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