MOODY'S INVESTORS SERVICE

CREDIT OPINION
27 July 2022

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.

Contacts

James Eck +1.212.553.4438
VP-Sr Credit Officer
james.eck@moodys.com

Jeffrey Montoya +1.212.553.6885
Associate Analyst
jeffrey.montoya@moodys.com

Bob Garofalo +1.212.553.4663
VP-Sr Credit Officer
bob.garofalo@moodys.com

Scott Robinson, CFA +1.212.553.3746
Associate Managing Director
scott.robinson@moodys.com

Radian Group Inc.

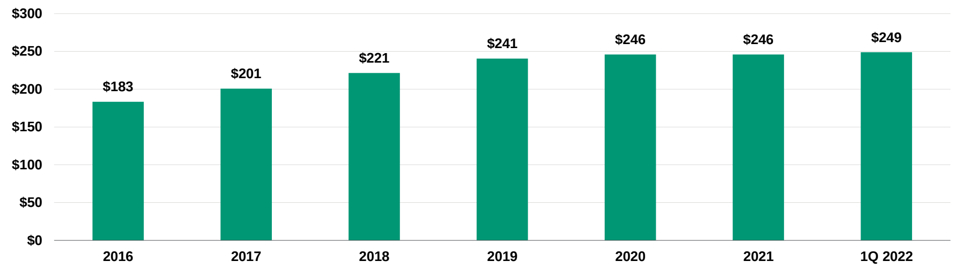
Update following upgrade of Radian's ratings

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.

The US housing market has been resilient in the face of the economic uncertainties stemming from the coronavirus pandemic. However, the rapid rise in home prices over the past couple of years and the sharp increase in interest rates due to inflationary pressures has adversely affected housing affordability.

Exhibit 1
Radian Group's primary insurance in force growth has flattened out on heavy refinancing activity
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

» Diverse customer base of lenders

» High quality new business written enhances profitability and capital growth

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

» Comprehensive reinsurance program mitigates tail risk in stress scenarios

» Strong holding company liquidity

Credit challenges

» Elevated inflation and overvaluation in some housing 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

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

Outlook

On July 21, 2022, Moody's upgraded the IFS rating of Radian Guaranty to A3 and the senior debt rating of Radian Group to Baa3. The upgrade reflects the firm's improved risk-adjusted capital adequacy resulting from the increased utilization of reinsurance, as well as its improving profitability metrics. We expect Radian's profitability to remain strong during the remainder of 2022 and into 2023 as increasing persistency rates and higher interest rates boost revenues even as mortgage loan origination volumes are expected to trend lower. The outlook for Radian Group and Radian Guaranty is stable.

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

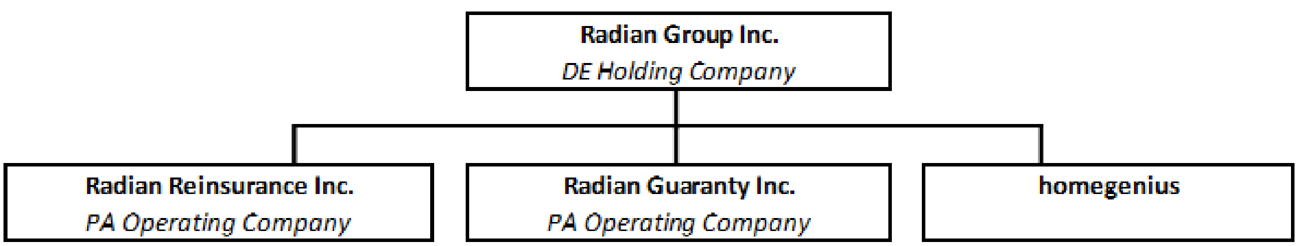
Radian Group Inc.

Radian Group Inc. [1][2]	2021	2020	2019	2018	2017
As Reported (US Dollar Millions)					
New Insurance Written (NIW)	91,830	105,024	71,327	56,547	53,905
Insurance in Force	245,972	246,144	240,558	221,443	200,724
Risk in Force (RIF)	61,158	60,937	61,235	57,053	51,627
Net Risk in Force	53,182	52,067	51,157	47,517	43,478
Net income (loss) attributable to common shareholders	601	394	672	606	121
Total Shareholders Equity	4,259	4,284	4,049	3,489	3,000
Regulatory Capital	5,020	4,304	4,109	3,633	3,491
PMIERs Sufficiency Ratio	162.4%	139.8%	128.5%	119.5%	113.9%
Moody's Adjusted Ratios					
Avg. NIW as % Total Industry NIW (2 yr. avg.)	10.7%	11.4%	11.4%	11.0%	10.1%
% Prime loan RIF	98.4%	98.1%	98.0%	97.5%	96.7%
Geographic Concentration	24.7%	26.1%	27.4%	28.2%	27.5%
Client Concentration	19.6%	16.6%	12.9%	5.3%	6.6%
Adjusted Risk to Capital	11.2x	12.9x	13.4x	14.3x	13.9x
Return on Average Capital (ROC)	10.5%	7.3%	14.0%	13.9%	5.5%
Combined Ratio (1 yr avg)	36.0%	71.4%	40.5%	40.5%	45.8%
Adjusted Financial Leverage	25.6%	25.4%	18.9%	24.2%	26.5%
Total Leverage	27.5%	27.6%	21.1%	25.6%	26.5%
Cash Flow Coverage	NA	NA	NA	0.0x	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

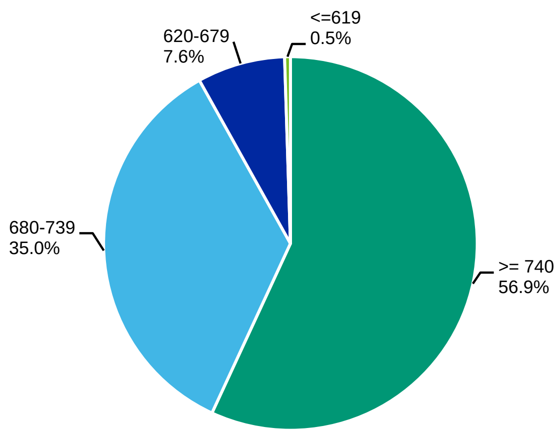
Exhibit 3
Simplified organizational structure



Source: Company reports, Moody's Investors Service

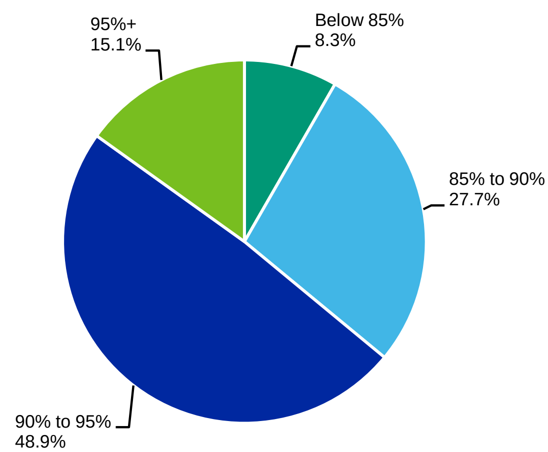
Radian Group is a leading provider of private mortgage insurance in the United States, primarily through Radian Guaranty. The company also provides risk management products and real estate services to financial institutions through its homegenius segment. At Q1 2022, Radian had approximately $249 billion of primary insurance in force and shareholders' equity of approximately $4.1 billion.

Exhibit 4
High quality insured portfolio
Primary risk in force by FICO score (Q4 2021)



Source: Company reports

Exhibit 5
Primary risk in force by LTV ratio (Q4 2021)



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 reflects its strong market presence in the US mortgage insurance market. During 2021, Radian Group's private MI market share was approximately 15.7% (2020: 17.5%). 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 homegenius segment offers a broad array of products and services to market participants across the real estate value chain. These include title, valuation, asset management and other real estate services offered primarily to mortgage lenders, mortgage and real estate investors, 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: Rising home prices and sharp rise in mortgage interest rates bring affordability issues to the forefront

We assign the same score (currently A on both an adjusted and unadjusted basis) for this rating factor to all of our rated US mortgage insurers. The US housing market has been resilient in the face of the economic uncertainties stemming from the coronavirus pandemic. However, the rapid rise in home prices over the past couple of years and the sharp increase in interest rates due to inflationary pressures has adversely affected housing affordability.

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 2021, the PMI industry's market share of insured mortgage loans was approximately 44%, down slightly from 45% during 2020. 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 in the prime, first-lien segment of the mortgage market. 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

The US housing market has been resilient in the face of the economic uncertainties stemming from the coronavirus pandemic. Fiscal stimulus measures, government policy support through mortgage loan forbearance programs, low mortgage interest rates and demand for homes outstripping supply all served to insulate the US residential housing market from the broader economic downturn. However, home prices have surged higher over the past couple of years, leading to overheated housing markets in certain parts of the country. Additionally, the sharp rise in mortgage interest rates is placing additional pressure on overall housing affordability, which could lead to a return of more relaxed mortgage loan credit standards to broaden homeownership levels through mortgage affordability programs. We expect US home price gains to moderate during 2022 due to the increase in mortgage loan interest rates. Nonetheless, low unemployment and the demand for housing outstripping the supply of homes are likely to support the US housing market for the remainder of 2022 and into 2023.

Longer term, mortgage insurers will benefit from certain demographic factors, including the below-trend homeownership rate, particularly among Millennials, which has resulted in a build-up of potential homeowners and 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 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 nearly all of its business written since 2017, providing significant capital resources to absorb losses during periods of elevated mortgage credit losses.

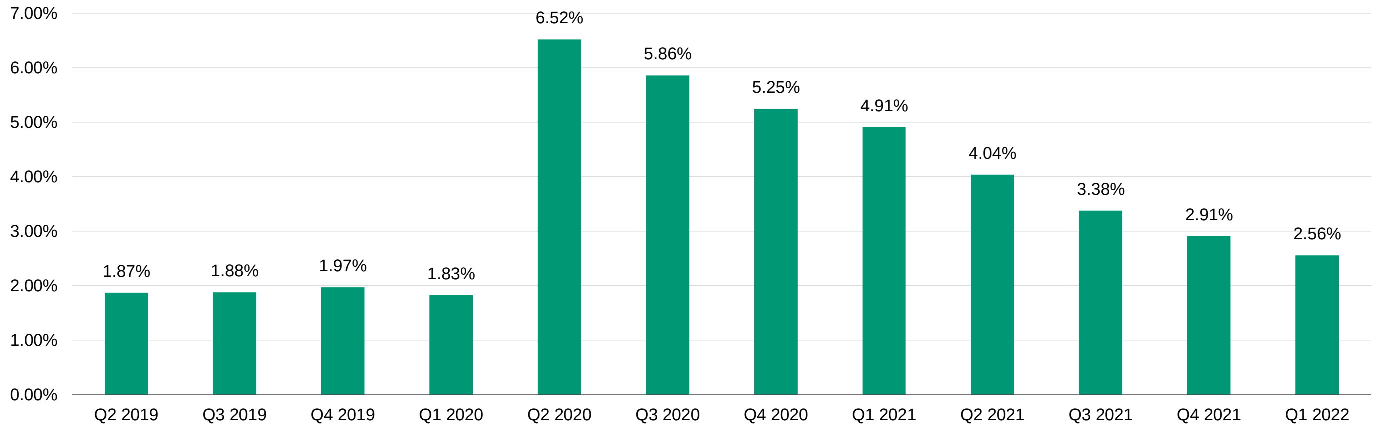
At 1Q 2022, Radian Guaranty had PMIERs available assets of approximately $5.1 billion vs. PMIERs required assets of approximately $3.5 billion, resulting in a PMIERs sufficiency ratio of approximately 144%. The firm also maintains strong liquidity at the holding company, with cash and invested assets of approximately $1 billion as of March 31, 2022. 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 2021, Radian Group's average net income return on capital was 10.3%, 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 2021, Radian Group reported GAAP net income of approximately $601 million (2020: $394 million). Results were positively impacted by lower incurred losses, partially offset by lower net premiums earned. 1Q 2022 results were also strong, with net income of $181 million, reflecting favorable loss reserve development. We expect the company's profitability to remain strong during the remainder of 2022 and 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 is declining after coronavirus-related spike



Source: Company reports

At 1Q 2022, Radian Guaranty's delinquent loan inventory was approximately 2.6% of outstanding loans, which is high relative to recent historical levels, but down from around 6.5% during Q2 2020 (Exhibit 6). We expect the declining delinquency rate trend to continue as strong home price appreciation over the past several years will reduce the number of delinquent mortgage loans that ultimately result in a foreclosure and mortgage insurance claim.

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

Over the past several years, Radian Group has 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, 2021, Radian Group's adjusted financial leverage ratio was approximately 25.6%, slightly higher than the 25.4% at year-end 2020. We expect the firm to continue to reduce its adjusted financial leverage over time toward levels closer to 20%.

Radian Group's next debt maturity is in 2024, when $450 million of senior notes mature. Radian Guaranty and Radian Reinsurance are both members of the FHLB and use the borrowing facility for general cash management purposes and to purchase additional investment securities. As of March 2022, there were approximately $149 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 which mitigates the lack of unrestricted dividend capacity.

Liquidity analysis

Radian Guaranty currently has no unrestricted dividend capacity due to its large negative unassigned surplus balance (Q1 2022: -$418 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, 2022, Radian Group had immediately available unrestricted cash and liquid investments of approximately $1 billion and also had access to a $275 million revolving credit facility (currently undrawn).

During 2021, Radian's interest expense was $84 million. The company also paid $103 million in common shareholder dividends and repurchased $399 million of its common stock.

ESG considerations

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

Exhibit 7
ESG Credit Impact Score

CIS-2
Neutral-to-Low

NEGATIVE IMPACT POSITIVE IMPACT

For an issuer scored CIS-2 (Neutral-to-Low), its ESG attributes are overall considered as having a neutral-to-low impact on the current rating; i.e., the overall influence of these attributes on the rating is non-material.

Source: Moody's Investors Service

Radian Group Inc.'s ESG Credit Impact Score is neutral to low (**CIS-2**), reflecting the limited impact of environmental and social risks on the rating to date. Consistent with other mortgage insurers, Radian Group has 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

ENVIRONMENTAL	SOCIAL	GOVERNANCE
E-2	S-3	G-2
Neutral-to-Low	Moderately Negative	Neutral-to-Low

Source: Moody's Investors Service

Environmental

Radian Group's 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 has 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 neutral to 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	A
Market Position (20%)								A	A
- Avg. NIW as a % of Total Industry NIW				10.7%					
- Prime Loans (% of RIF)		98.4%							
- Client Concentration				19.6%					
- Geographic Concentration			24.7%						
Housing Market Attributes (25%)								A	A
- 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		11.2x							
Profitability (15%)								A	A
- Return on Capital – 5 yr. avg.			10.3%						
- Combined Ratio – 5 yr. avg.			46.8%						
Financial Flexibility (10%)								Ba	Baa
- Cash Flow Coverage – 5 yr. avg.						0.0x			
- Adjusted Financial Leverage				25.6%					
- Total Leverage				27.5%					
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

- 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: 2022 outlook remains stable as economy recovers and pandemic risks recede (November 2021)

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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Moody's
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