

Research

Radian Group Inc.

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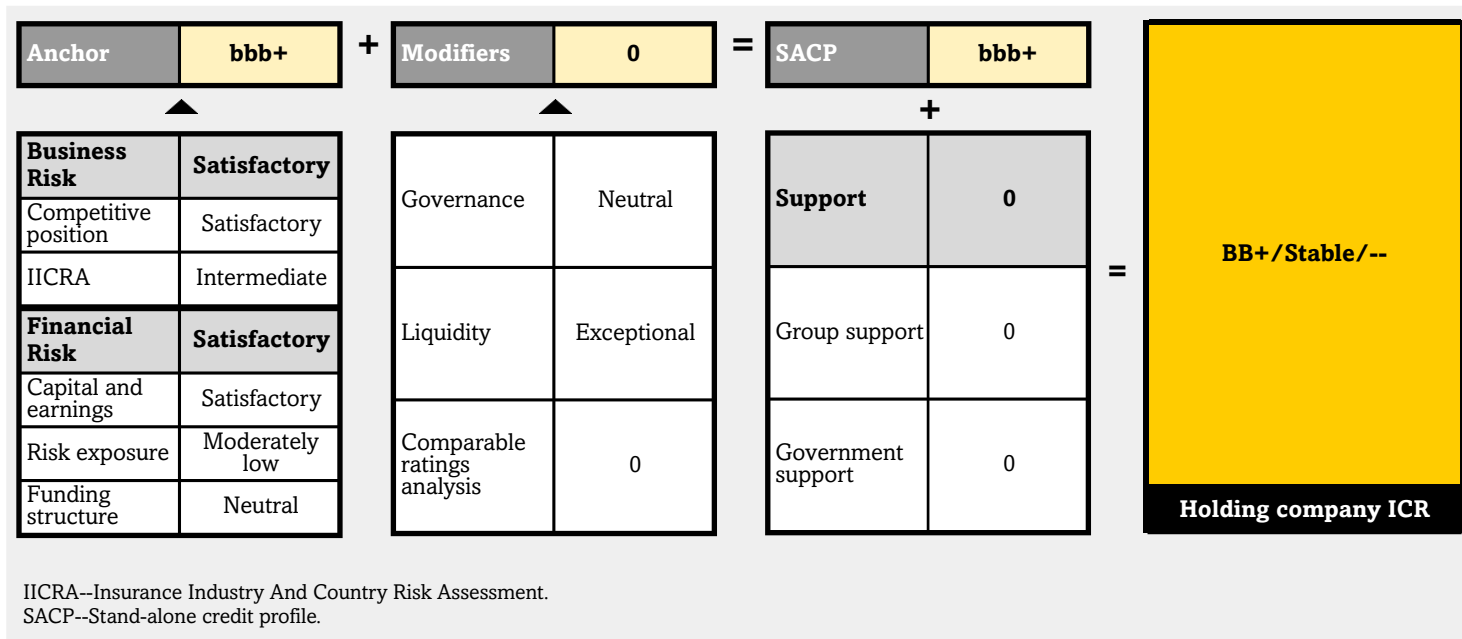
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Radian Group Inc.



Credit Highlights

Overview	
Key strengths	Key risks
One of the leading U.S. mortgage insurers, with a diversified lender base and geographic footprint	Macroeconomic headwinds could weigh on near-term loss ratios and earnings
Strong underwriting quality and pricing of post-financial-crisis vintages	Potentially lower returns from the decline in premium yield and increase in reinsurance costs
Improved capitalization supported by earnings accrual, home price appreciation, reduction in delinquencies, and substantial reinsurance utilization	Commoditized business that is vulnerable to systemic risks and exposed to structural changes in the housing finance market

U.S. macroeconomic headwinds could result in elevated loss ratios for Radian Group Inc., though any potential losses are expected to remain within the earnings. S&P Global Ratings economists expect the U.S. economy to fall into shallow recession in the first half of 2023. We expect the unemployment rate to rise and peak at 5.7% by early 2025. With the rise in the unemployment rate, we expect mortgage delinquencies to increase, resulting in the elevated loss ratios. However, mortgage insurers' strong underwriting portfolio quality, significant home equity cushion, and substantial reinsurance protection could limit potential losses to within companies' earnings. In addition, we believe the rising mortgage rates could have a modest impact on the existing underwriting portfolio because more than 95% of the loans underwritten are fixed-rate mortgages with terms of 30 years or more. Nonetheless, we believe loans underwritten in 2022 and prospectively could be more vulnerable, and therefore maintaining underwriting discipline and effective risk selection and exposure management could be key to navigating economic pressures.

Radian's risk-adjusted capitalization has strengthened, and we expect it to be well redundant at the 'BBB' stress level through 2024. The company's risk-adjusted capitalization as measured by S&P Global Ratings' risk-based capital adequacy model had improved materially as of year-end 2021. The reduction in delinquent loans, along with substantial house price appreciation, has resulted in lower expected losses, thereby significantly reducing capital requirements. But as the company enters the stressed macroeconomic environment with strengthened capital, we believe prospective capital requirements could increase. This is because we anticipate mortgage delinquencies will rise, insurance in force (IIF) will grow (due to higher persistency), home price appreciation will moderate, portfolio premium yields will continue to fall, reinsurance costs could rise, and perhaps certain borrower risk characteristics, like debt to income, could become elevated.

Radian is one of the leading players in U.S. mortgage insurance, with a diverse lender base and broad U.S. geographic footprint. In recent years, the company's market share has been 15%-20%, supported by the diverse lender base, which is largely anchored by long-standing relationships with national lenders and banks. We anticipate market share of about 16.5% in the next few years as competition for business increases. The company continues to make efforts to expand the Homegenius segment, but this segment is still small compared with the mortgage insurance business, which is the primary factor in our view of Radian's risk.

Outlook: Stable

The stable outlook reflects that although risks persist, S&P Global Ratings believes that insured losses will be contained within earnings and capitalization will likely remain sufficiently redundant at the 'BBB' stress level, helped by Radian's access to reinsurance protection.

Downside scenario

We could lower our ratings in the next two years if:

- Losses are higher than anticipated, such that they lead to a capital event or operating performance becomes significantly worse than that of Radian's peer group;
- Capitalization is not materially redundant at the 'BBB' stress level; or
- The company intends to manage its financial leverage above 30%.

Upside scenario

We do not anticipate raising our ratings during the next two years. However, we could raise the ratings if the U.S. economic and housing fundamentals are supportive and if:

- Risk-adjusted capitalization sustainably strengthens to a level that is sufficiently redundant at the 'A' stress level; or
- The company demonstrates strong underwriting discipline and risk controls, supporting sustainable risk-adjusted returns through the cycle that are better than those of peers.

Assumptions

- Real U.S. GDP growth of 1.6% in 2022, 0.2% in 2023, and 1.6% in 2024
- 10-year U.S. Treasury note yield of 2.8% in 2022, 3.3% in 2023, and 3.2% in 2024
- U.S. core Consumer Price Index of 6.2% in 2022, 3.8% in 2023, and 2.0% in 2024
- Unemployment rate of 3.7% in 2022, 4.3% in 2023, and 5.3% in 2024
- Payroll employment of 152 million in 2022, 153 million in 2023, and 152.3 million in 2024
- The sector's mortgage originations decline in 2022-2024 due to a significant drop in refinance activity

Radian Group Inc. Key Metrics						
(Mil. \$)	2024f	2023f	2022f	2021	2020	2019
New insurance written (NIW)	--	--	--	91,830	105,024	71,327
Change in NIW (%)	Low double-digit increase	Low single-digit decline	High 20s decline	(12.6)	47.2	26.1
Insurance in force (IIF)	--	--	--	245,972	246,144	240,558
Change in IIF (%)	High single-digit growth	Mid single-digit growth	Mid single-digit growth	(0.1)	2.3	8.6
Net premiums earned (NPE)	1,000-1,100	975-1,075	950-1,050	998	1,093	1,134
Change in NPE (%)	Low single-digit growth	Low single-digit growth	Low single-digit growth	(8.7)	(3.6)	12.6
Combined ratio (%)	40%-45%	35%-40%	(10%) - (5%)	27.2	65.4	33.7
Net income attributable to all shareholders*	425-525	450-550	700-800	601	394	672
Consolidated return on shareholders' equity (%)	Low teens	Low to mid teens	High teens	14.1	9.4	17.8
S&P Global Ratings' risk-adjusted capital adequacy	Materially redundant at BBB	Redundant at A	Redundant at A	Redundant at A	Materially redundant at BBB	Materially redundant at BBB
Financial leverage including net present value of operating leases treated as debt and tax-adjusted pension deficits (%)§	Low 20s	Mid 20s	High 20s	25.7	26.0	19.0
EBITDA fixed-charge coverage (x)	Greater than 6	Greater than 6	Greater than 6	10.3	7.5	14.1

*2022f includes un/realized losses in first nine months of 2022. §Excludes Federal Home Loan Bank borrowings. f--Forecast.

Business Risk Profile: Satisfactory

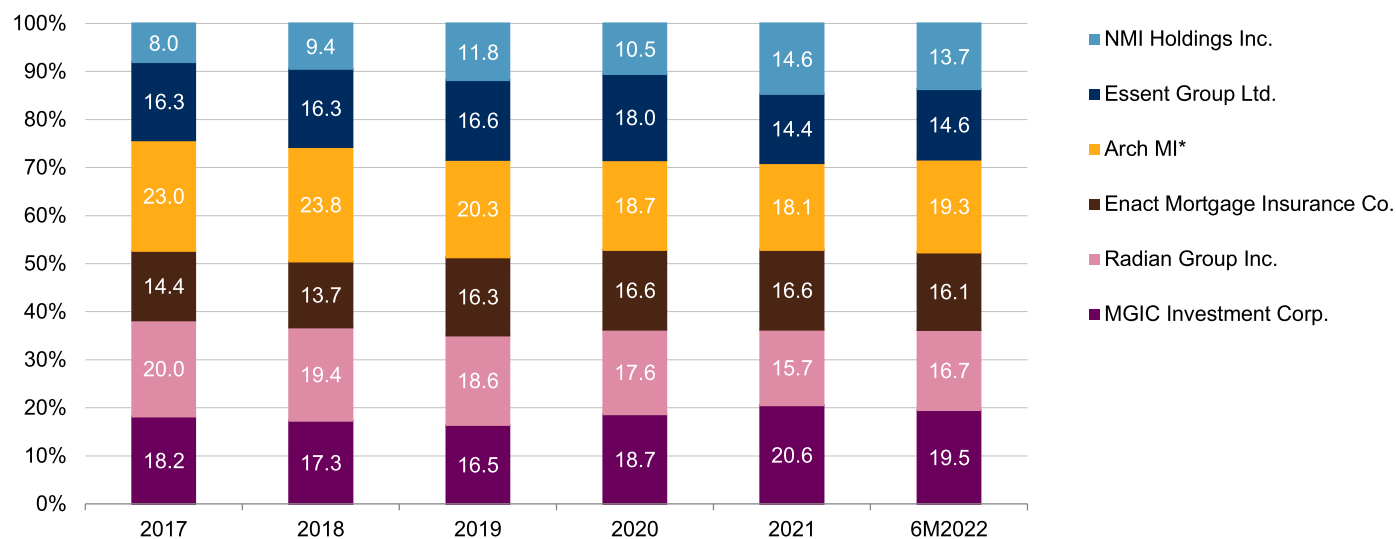
Radian is one of the major players with a long-standing presence in the U.S. mortgage insurance sector and a national footprint across the U.S. Its business is supported by a diverse lender base, largely anchored by long-standing relationships with national lenders and banks and credit unions. In addition, its portfolio credit quality is strong, which has fueled strong earnings in recent years.

However, the commoditized monoline business and systemic exposure to the economy and housing market constrain

our view of the company's business profile. The company's Homegenius segment, which includes title, real estate, and technology products and services, is growing but still requires time before contributing meaningfully to the overall business, in our view. Homegenius will feel the strain from slowing mortgage originations, along with the company's primary segment.

Chart 1

U.S. Private Mortgage Insurers--Market Share (By New Insurance Written)



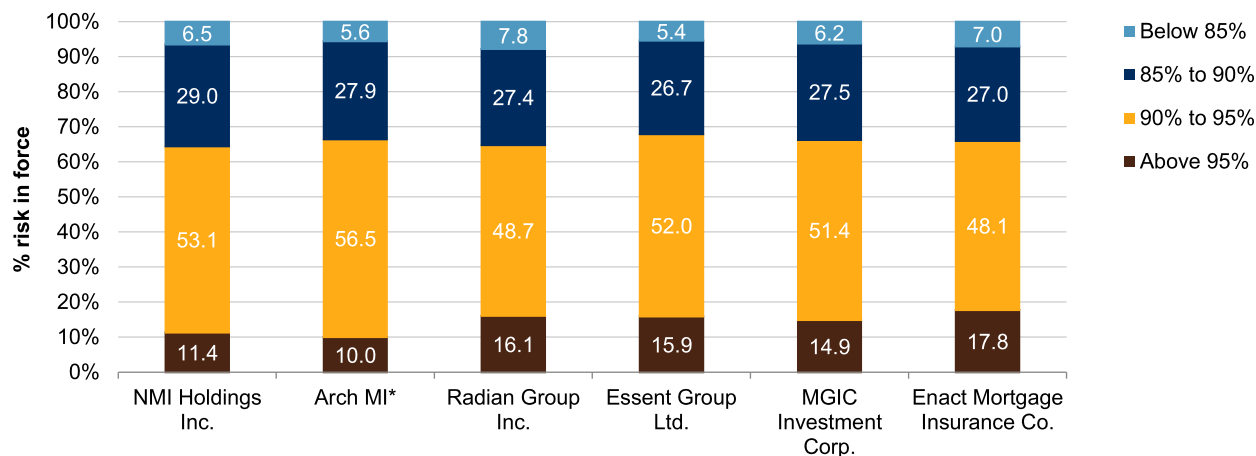
*Arch Capital Group Ltd.'s U.S. primary mortgage insurance business. Sources: Company public filings and S&P Global Ratings.
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In 2021, Radian's new insurance written (NIW) fell to \$91.8 billion from 2020's record high of \$105.0 billion, due to a slowdown in refinancing activity. We expect the NIW will continue to decline in the next two years as mortgage originations slow. The Mortgage Bankers Assn. (MBA) projects mortgage originations will decline to \$2.3 trillion and \$2.0 trillion for 2022 and 2023, respectively, compared with 2021's record-high originations of \$4.3 trillion.

While we expect Radian to maintain its position as one of the leading players in the sector, we expect prospective market shares to be generally evenly distributed, considering a competitive market for a commoditized product. Given the adoption of dynamic pricing by the sector at large, market shares can move around quickly. At the same time, we believe the increasing sophistication of pricing will be key to managing risk and could be a competitive advantage.

Chart 2

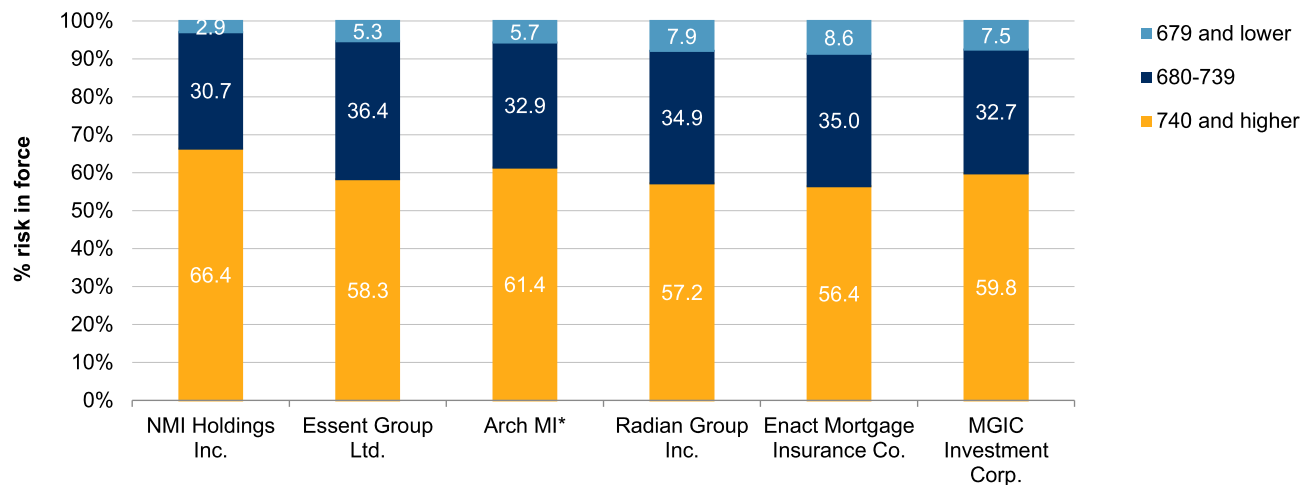
Mortgage Insurance Portfolio Risk In Force Distribution By Loan To Value
As of June 30, 2022



*Arch Capital Group Ltd.'s U.S. primary mortgage insurance business. Source: Company public filings.
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Chart 3

Mortgage Insurance Portfolio Risk In Force Distribution By Credit Quality (FICO)
As of June 30, 2022



*Arch Capital Group Ltd.'s U.S. primary mortgage insurance business. Source: Company public filings.
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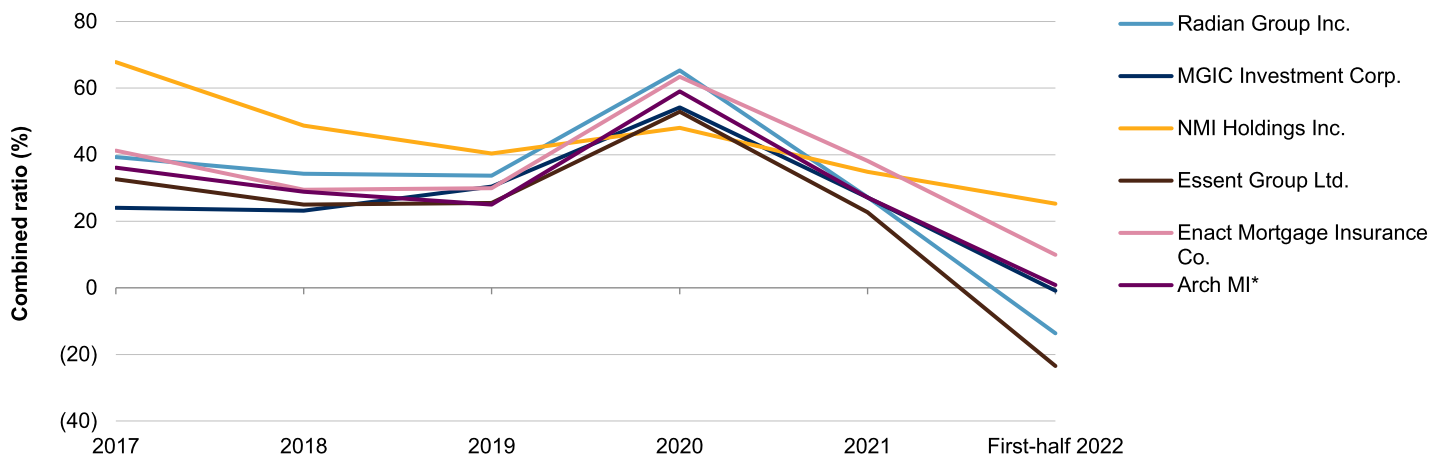
Mortgage portfolio credit quality remains sound as a result of tightened underwriting after the 2008-2009 financial crisis, the company's efforts to better manage its risk exposure, and better pricing. A key development is Radian's

adoption of a dynamic pricing engine (RADAR), which enabled the company to implement price increases and manage risk quickly in response to changing market conditions after the COVID-19 outbreak. The tighter underwriting standards and improved credit quality of the in-force book are reflected in the company's underwriting performance. Radian's average combined ratio over the past five years (2017-2021) was around 40% with the loss ratio around 17% and expense ratio around 23%.

The U.S. economy's stronger recovery in 2021 resulted in significant cure activity, which more than offset new notices of default. Loss ratios fell to 1.9% in 2021 from 44.2% in 2020. Delinquency rates dropped to 2.9% in 2021 from 5.25% in 2020. The company's performance also shone in the first nine months of 2022 with a combined ratio of negative 14.2% as prior-year reserve releases outpaced the current-year losses. Radian's book of business, however, is still influenced by its exposure to legacy vintages (pre-2008), which can lead to higher loss ratios. While these vintages represent only about 4.6% of IIF, they accounted for 25.4% of the overall delinquency count as of year-end 2021.

Chart 4

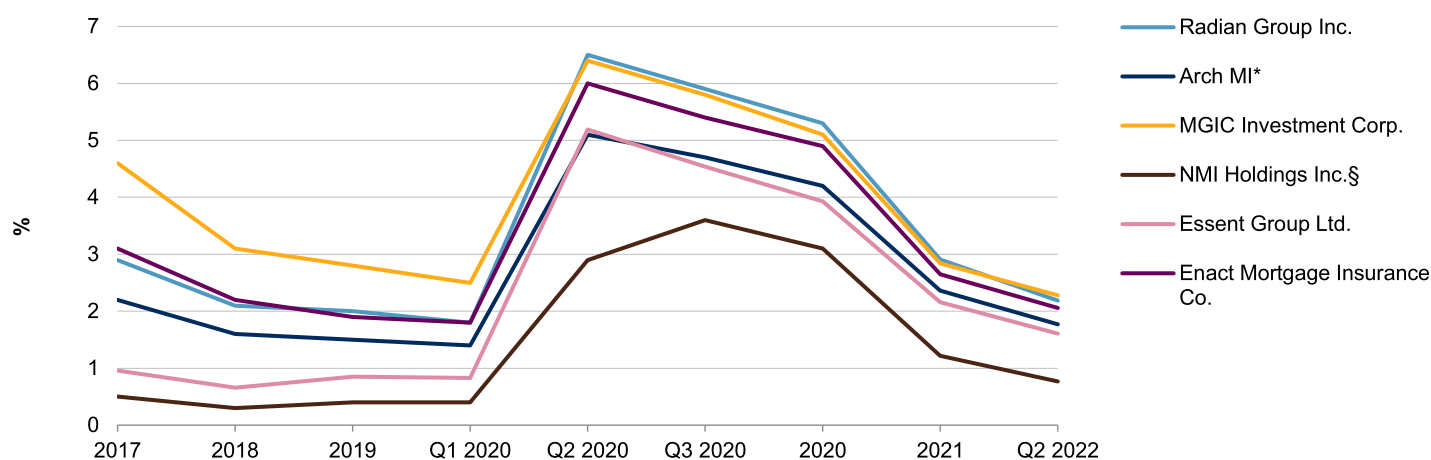
U.S. Private Mortgage Insurers--Underwriting Performance



*Arch Capital Group Ltd.'s U.S. mortgage insurance business. Source: Company public filings. Copyright © 2022 by Standard & Poor's Financial Services LLC. All rights reserved.

Chart 5

U.S. Private Mortgage Insurers--Historical Delinquency Rate



*Arch Capital Group Ltd.'s U.S. mortgage insurance business. §NMI--Delinquency reporting is slightly different from that of the sector, which results in reported peak delinquency ratio lagging the sector by one month. Source: Company public filings.

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We expect the combined ratio for full-year 2022 will remain muted at -10% to -5%, given the sizable favorable reserve developments in 2022. Our outlook for 2023-2024, however, is tempered by the potential for elevated losses, given the economic headwinds and our view that rising unemployment rates could result in an increase in mortgage delinquencies, which could elevate loss ratios. We expect Radian's combined ratio to be 35%-40% in 2023 and 40%-45% in 2024.

S&P Global Ratings economists expect the U.S. will fall into a shallow recession in the first half of next year. The unemployment rate is expected to rise and peak in early 2025 (see "Economic Outlook U.S. Q4 2022: Teeter Totter"). We expect housing activity to remain subdued in 2023-2024 and mortgage originations (according to the MBA) to remain lower in 2023 and gradually improve in 2024.

Financial Risk Profile: Satisfactory

Radian's risk-adjusted capitalization, as measured by S&P Global Ratings' capital adequacy model, has strengthened materially and is redundant at the 'A' stress level as of year-end 2021. The reduction in delinquent loans and significant house price appreciation in the past two years led to substantial home equity cushion, resulting in reduced loss severity in the underlying loan portfolio and strengthened capitalization.

However, we anticipate the prospective capital requirements could increase due to growth in IIF, elevated delinquencies, moderating house price appreciation, lower premium yields, potentially higher reinsurance costs, and expected higher borrower and loan characteristics, like debt to income and loan to value.

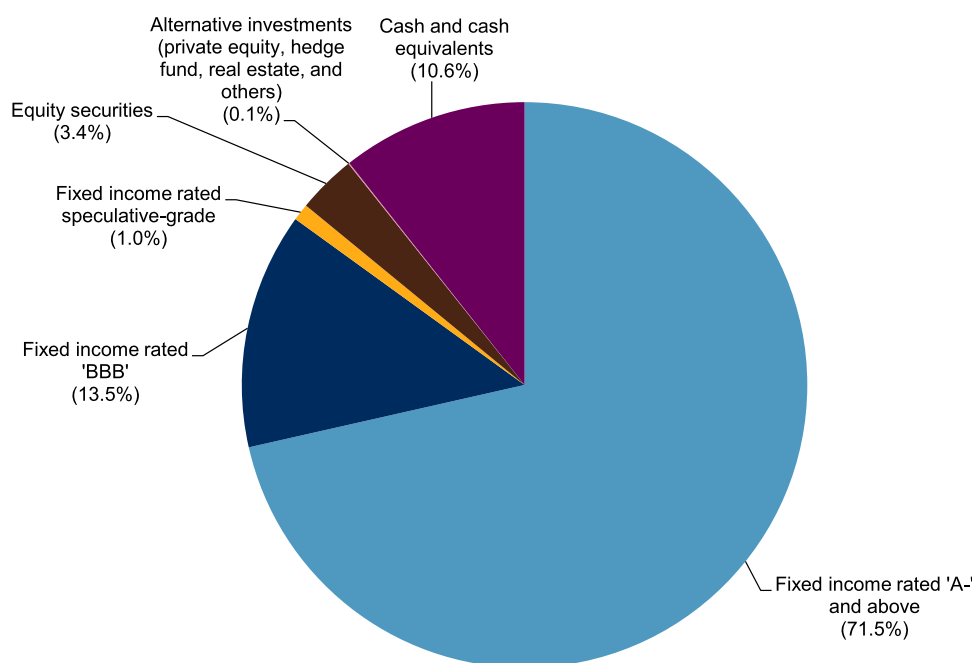
Furthermore, mark-to-market investment losses, along with the company's capital distribution strategy (dividends and share repurchases), could hinder capital growth, though these factors are partially offset by strong earnings accrual. In the first nine months of 2022, shareholders' equity fell by 12% to \$3.74 billion, primarily due to realized and unrealized investment losses of \$710 million (other comprehensive income loss on investments of \$622 million and investment losses reported above net income of \$88 million), largely offset by strong operating profits. We expect Radian's capital adequacy through 2024 will be well redundant at the 'BBB' stress level.

We expect the company will continue to effectively execute its reinsurance strategy, but the reliance on reinsurance to manage capitalization has been high. Of the asset requirements as calculated under government-sponsored enterprises' Private Mortgage Insurer Eligibility Requirements (PMIERS) framework, about 22% were met by reinsurance/insurance-linked securities (ILNs) as of the first six months of 2022. While the use of reinsurance protection helps mitigate tail risks, heavy utilization can result in dependence and create uncertainty if it is not readily available--a dynamic we saw at the onset of the pandemic in 2020, when capacity became constrained. Radian completed two ILN transactions in 2021 (in November and April), providing a total reinsurance limit of about \$982 million, which will support capitalization. Radian also entered its 2022 QSR agreement, which provides 20% quota share on NIW from Jan. 1, 2022, to June 30, 2023. As of June 30, 2022, Radian had a cushion above PMIERS' minimum asset requirements of \$1.4 billion, or 38%.

We believe rising interest rates and macroeconomic headwinds will have a modest impact on existing loan portfolios, given the large concentration of fixed-rate mortgages and significant home price appreciation, which has added material home equity cushion. However, we believe the effect of macroeconomic headwinds could be evident in the new business written. The significant jump in mortgage rates, along with higher home prices, has hurt affordability. This has tapered borrower demand, and housing activity since early 2022 has slowed considerably. Existing home sales, which form the majority of home sales in the U.S., have decreased for eight consecutive months through September. In addition, the confidence in U.S. single-family homebuilders has softened for 10 straight months, and house price appreciation has started to moderate.

Hence, we expect the new insurance written in 2022-2024 to be considerably lower than 2020-2021 levels, but given higher persistency rates on existing loans (lower lapse rates), IIF will likely continue to grow. We believe the growth in IIF could be beneficial for mortgage insurers because underwriting expenses and reinsurance benefits could be optimized effectively. However, we think the new business written in 2022 onward could be more vulnerable to losses because such borrowers will have lower equity cushion, and borrower risk characteristics could be somewhat elevated. Thus we expect loss ratios could become somewhat elevated. Furthermore, the larger vintages of recent years will approach their peak loss period in the next few years, which will naturally push up the normalized loss ratio.

Radian's investments are primarily composed of high-quality fixed-income securities, balanced with the higher volatility inherent in the underwriting mortgage exposure. Financial leverage remained virtually unchanged at 25.7% as of Dec. 31, 2021, from about 26.0% (excluding Federal Home Loan Bank borrowings) as of Dec. 31, 2020. Leverage will likely rise in 2022 given the reduction in shareholders' equity to the high 20s, largely due to unrealized losses in the investment portfolio, but we expect leverage will progressively decline due to earnings accrual and debt maturity to the low 20s by 2024. We expect fixed-charge coverage to remain above 6x for 2022-2024.

Chart 6**Radian Group Inc. Investment Portfolio Allocation At Year-End 2021**

Generally accepted accounting principles basis; % of total invested assets including cash. Source: Company public filings.
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Other Key Credit Considerations

Governance

Radian is a publicly listed company with an independent board providing management oversight. The company has focused on improving its portfolio credit quality and strengthening its market position, although its move to create supplemental businesses to diversify earnings has not come to fruition. After the 2008-2009 financial crisis, Radian's appreciation for risk management increased, with the company focusing on developing a robust enterprise risk management framework and making considerable progress in risk controls, as well as pricing and underwriting models.

Liquidity

We view Radian's liquidity as exceptional owing to its high-quality investment portfolio and positive operating cash flow.

Factors specific to the holding company

Radian's dependence on dividends and payments under expense-sharing agreements from its insurance operating subsidiaries domiciled in the U.S., where structural subordination is higher, leads to a three-notch differential between

our long-term operating company ratings and holding company ratings. Under expense-sharing agreements, Radian's operating subsidiaries pay their allocated share of the holding company's interest payments and other expenses.

Group support

We view Radian Guaranty Inc. and its rated affiliate, Radian Reinsurance Inc., as core subsidiaries of Radian.

Environmental, social, and governance

ESG Credit Indicators

E-1	E-2	E-3	E-4	E-5	S-1	S-2	S-3	S-4	S-5	G-1	G-2	G-3	G-4	G-5
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ESG credit indicators provide additional disclosure and transparency at the entity level and reflect S&P Global Ratings' opinion of the influence that environmental, social, and governance factors have on our credit rating analysis. They are not a sustainability rating or an S&P Global Ratings ESG Evaluation. The extent of the influence of these factors is reflected on an alphanumeric 1-5 scale where 1 = positive, 2 = neutral, 3 = moderately negative, 4 = negative, and 5 = very negative. For more information, see our commentary "ESG Credit Indicators: Definition And Applications," published Oct. 13, 2021.

Environmental, social, and governance risk factors are neutral to our credit rating assessment.

Accounting considerations

Radian files both U.S. generally accepted accounting principles and statutory financials. A mortgage insurer's loss reserve reflects management's expectation for paid losses on delinquent loans only, without any reserves set for mortgages that are currently performing. The assumptions for expected losses include, among other items, the default-to-claims rate and recovery. Therefore, the reported losses can increase significantly during periods of high unemployment and falling house prices.

Related Criteria

- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- Criteria | Insurance | General: Insurers Rating Methodology, July 1, 2019
- General Criteria: Group Rating Methodology, July 1, 2019
- Criteria | Insurance | General: Methodology: Mortgage Insurer Capital Adequacy, March 2, 2015
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011
- Criteria | Insurance | General: Refined Methodology And Assumptions For Analyzing Insurer Capital Adequacy Using The Risk-Based Insurance Capital Model, June 7, 2010

Related Research

- Economic Outlook U.S. Q4 2022: Teeter Totter, Sept. 26, 2022

Business And Financial Risk Matrix

Business risk profile	Financial risk profile							
	Excellent	Very Strong	Strong	Satisfactory	Fair	Marginal	Weak	Vulnerable
Excellent	aa+	aa	aa-	a+	a-	bbb	bb+	b+
Very Strong	aa	aa/aa-	aa-/a+	a+/a	a-/bbb+	bbb/bbb-	bb+/bb	b+
Strong	aa-/a+	a+/a	a/a-	a-/bbb+	bbb+/bbb	bbb-/bb+	bb/bb-	b+/b
Satisfactory	a	a/a-	a-/bbb+	bbb+/bbb	bbb/bbb-	bb+/bb	bb-/b+	b/b-
Fair	a-	a-/bbb+	bbb+/bbb	bbb/bbb-	bbb-/bb+	bb/bb-	b+/b	b-
Weak	bbb+/bbb	bbb/bbb-	bbb-/bb+	bb+/bb	bb/bb-	bb-/b+	b/b-	b-
Vulnerable	bbb-/bb+	bb+/bb	bb/bb-	bb-/b+	b+/b	b/b-	b-	b-

Note: Where table indicates two possible outcomes, we determine the anchor as follows: For financial risk profiles that we assess as satisfactory or stronger, we consider the relative strength of both the business risk and financial risk profiles within the cell. This is based on a holistic assessment of the relative strengths of the rating factors of the business risk profile and financial risk profile. For financial risk profiles that we assess as fair or weaker, we typically place more weight on the relative strength of the rating factors of the financial risk profile.

Ratings Detail (As Of November 10, 2022)*

Radian Group Inc.

Issuer Credit Rating

Local Currency

BB+/Stable/--

Senior Unsecured

BB+

Related Entities

Radian Guaranty Inc.

Financial Strength Rating

Local Currency

BBB+/Stable/--

Issuer Credit Rating

Local Currency

BBB+/Stable/--

Radian Reinsurance Inc.

Financial Strength Rating

Local Currency

BBB+/Stable/--

Issuer Credit Rating

Local Currency

BBB+/Stable/--

Domicile

Pennsylvania

*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings' credit ratings on the global scale are comparable across countries. S&P Global Ratings' credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.

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