S&P Global
Ratings

Research

Factory Mutual Insurance Co.

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Factory Mutual Insurance Co.

Anchor	a+
Business Risk	**Very Strong**
Competitive position	Very strong
IICRA	Intermediate
Financial Risk	**Strong**
Capital and earnings	Excellent
Risk exposure	High
Funding structure	Neutral

+

Modifiers	0
Governance	Neutral
Liquidity	Exceptional
Comparable ratings analysis	0

=

SACP	a+

+

Support	**0**
Group support	0
Government support	0

=

A+/Stable/--

Financial strength rating

IICRA--Insurance Industry And Country Risk Assessment.
SACP--Stand-alone credit profile.

Credit Highlights

Overview

Strengths	Risks
World's largest commercial property insurer and formidable leader in specialized engineering-based property underwriting and research	Susceptibility to material losses arising from large limits and capacity in property underwriting
Highly valued customized loss prevention solutions complementing large commercial property products	High risk appetite for equity investments could expose capital to financial-market volatility
Strong long-term underwriting performance, though subject to outsized losses arising from natural catastrophes	Product diversity is narrow given its primary focus on commercial property coverage

FM Global's market leadership in providing insurance coverage and risk management service for large commercial and industrial properties is positioned to benefit from a favorable rate environment, although rising costs due to construction material and labor shortages could hinder earnings. Economic inflation and supply-chain obstacles could hamper earnings growth through 2022. However, favorable rate increases will alleviate margin pressure. Factory Mutual Insurance Co. (FM Global) has a leading position in global commercial property insurance. The company offers large limits on individual properties to clients that agree to implement the risk mitigation measures recommended by FM Global's extensive roster of risk management engineers, who perform onsite inspections of insured properties.

Capitalization has been a strong pillar to the rating. FM Global's capitalization, as measured by S&P Global Ratings' capital adequacy model, remains substantially redundant at the 'AAA' level. The company has been able to maintain excellent capital levels through periods of heightened catastrophe activity and capital markets volatility due to this capital buffer, proper risk policies, and use of reinsurance.

Potential earnings and capital volatility are high due to the nature of the insurance coverage FM Global provides and the company's investment strategy. As a large commercial property risk underwriter, volatility generated by single large location losses, aggregation of losses from single event, or a combination of both is inherent and expected. We believe the company's research-based engineering expertise and effective use of location-based reinsurance help mitigate outsized losses. Nonetheless, underwriting results each year can fluctuate widely depending on the level of large loss or natural catastrophe activity. At the same time, the company's risk appetite on equities could expose balance sheet capital to significant market risk. These risks are mitigated to a large degree by the company's substantial capital buffer and the generally uncorrelated nature of these risks.

The combination of very strong business risk and strong financial risk leads to a split anchor of 'aa-/a+'. We select the lower of the two, reflecting the company's narrow focus on commercial property.

Outlook: Stable

The stable outlook reflects S&P Global Ratings' view that the group has a very strong competitive position supported by its highly regarded reputation for assessing risk to prevent and mitigate loss and leading market presence in the large commercial property market. FM Global's extremely strong capital adequacy and generally strong operating results also allow it to absorb significant catastrophe losses and financial market volatility. Given FM Global's monoline focus on large commercial property, the potential for several large single losses or an elevated level of catastrophe losses is always present, making underwriting performance inherently volatile, and such losses have resulted in material underperformance in two of the past six years. But we expect a longer term average combined ratio of around 95%, assuming a normal level of catastrophe losses.

Downside scenario

We could lower the ratings in the next 24 months if FM Global's operating performance comes in substantially below our expectations and we believe that a systemic change has occurred that's weakened its competitive position. We may also lower our ratings if, during the next two years, FM Global's capital redundancy per our proprietary risk-adjusted capital model falls and remains below the 'AAA' confidence level due to significant underwriting losses or equity markets volatility.

Upside scenario

We are unlikely to upgrade FM Global in the next 24 months because of its narrow focus on commercial property business with material exposure to property catastrophe risk, which generates higher loss volatility when compared to 'AA-' rated 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
- Unemployment rate of 3.7% in 2022, 4.3% in 2023, and in 5.3% 2024

- Core Consumer Price Index at 6.2% in 2022, 3.8% in 2023, and 2.0% in 2024

Source: "Economic Outlook U.S. Q4 2022: Teeter Totter", published Sept. 26, 2022

Key Metrics

	--Year ended Dec. 31--						
Mil. $	**2023***	**2022***	**2021**	**2020**	**2019**	**2018**	**2017**
P/C net premium written	8,936	8,676	5,799	5,092	4,479	4,097	3,780
P/C net combined ratio (%)	93.4	68.3	82.2	91.8	79.7	128.6	129.1
Net income	630	(428)	2,842	1,732	2,479	161	254
Return on revenue (%)	12.3	35.1	22.0	12.8	26.6	(17.2)	(19.3)
Return on shareholder's equity (%)	3.3	(2.3)	15.9	11.1	18.8	1.3	2.0
S&P Global Ratings capital adequacy	AAA	AAA	AAA	AAA	AAA	AAA	AAA

*2022-2023 forecast data reflect S&P Global Ratings base-case assumptions. Net income projections exclude realized investment gains/losses.

Business Risk Profile: Very Strong

FM Global is a global commercial property insurer and risk management services provider focused on the large commercial property market. Its operations are globally diversified and mostly in developed markets that we typically view as having intermediate industry risk due to the property/casualty (P/C) sector's inherent product risk in these markets.

We base our very strong assessment of FM Global's competitive position on its strong reputation and major presence in the large commercial property market. Its highly regarded reputation for engineering expertise in assessing client risks to prevent and mitigate losses gives it a significant commercial advantage over competitors, as shown by its high client retention and generally favorable underwriting performance. FM Global underwriters and claim adjusters are predominantly trained risk engineers with substantial technical expertise, supporting a deep-rooted engineer-focus risk culture. Client retention is enhanced by the membership credits given to policyholders in years when FM Global's operating performance and capital position are strong. These credits are based in part on their tenure as policyholders with the company.

FM Global's underwriting results have historically been favorable, as demonstrated by a 10-year (2012-2021) average combined ratio of about 92.5%. But historical performance has been significantly affected by catastrophe events in 2017 and 2018, which pushed the combined ratio close to 130% in both years before falling to about 82% in 2021 and 70% in the first nine months of 2022. Its most recent five-year (2017-2021) average combined ratio is 100.0%, highlighting the volatility inherent in its business concentration. We expect that another year of below average losses will lead the group to report a full-year combined ratio of around 70% in 2022. Projecting FM Global's underwriting performance is inherently difficult given the volatility of large losses and catastrophe-related losses, but we would expect the combined ratio on average to be around 95% (assuming about 30 percentage points in annual catastrophe losses).

Chart 1

Combined Ratio Average (2017-2021)

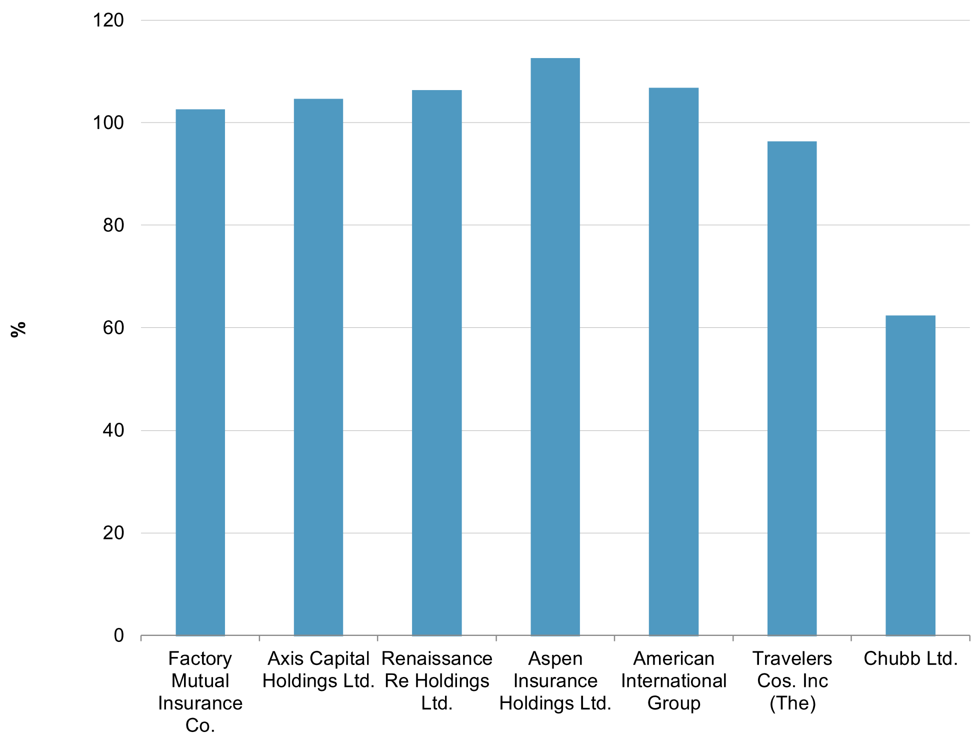
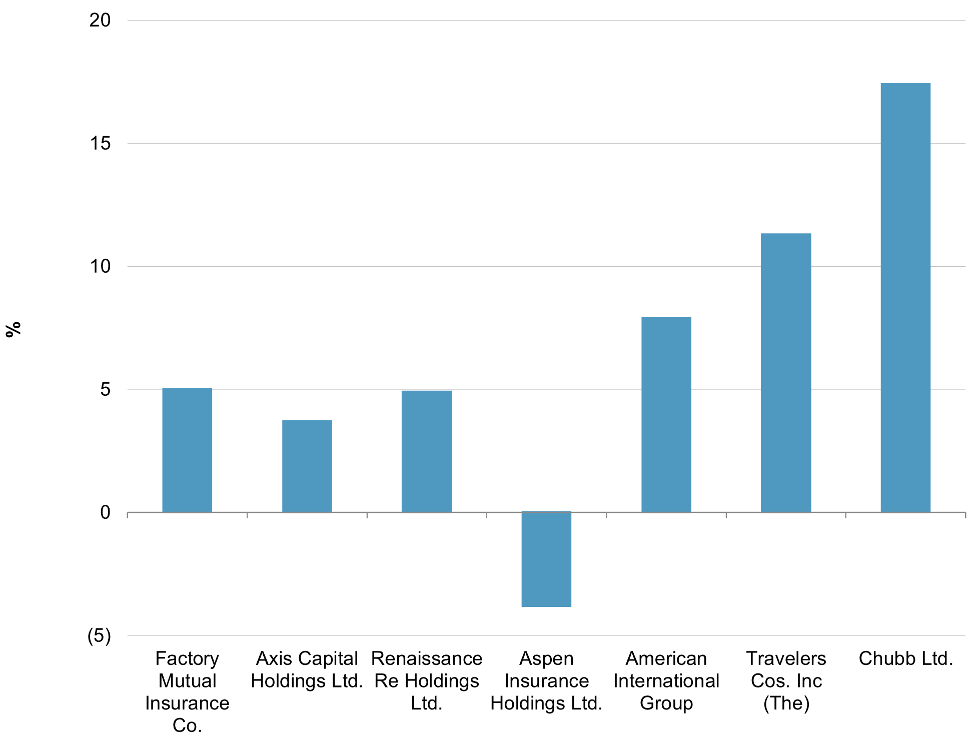


Chart 2

Return On Revenue Average (2017-2021)



Financial Risk Profile: Strong

We view FM Global's capital adequacy as extremely strong, supported by strong earnings generation and its mutual insurer structure. We assess its capital redundancy as well into the 'AAA' range per our proprietary capital adequacy model. In our view, this mitigates the risk of substantial losses due to catastrophe events or a sharp decline in equity markets causing a significant decline in capital. While 2017 and 2018 underwriting and investment losses did not modify our capital assessment, we view the group's earnings volatility as partially offsetting its generally strong underwriting performance.

We regard FM Global's risk exposure as high, due to its large concentration in equity investments (around 43% of its investment portfolio as of year-end 2021, including private equity and equity-oriented hedge funds), significant exposure to catastrophic events, and some legacy asbestos and environmental exposure. Its high catastrophe exposure is a direct result of its large commercial property business concentration. While the group does have a high risk tolerance toward equities, the risk is partially offset by its diversification by issuer and sector.

As a mutual insurer it lacks access to the public equities markets, but FM Global has no debt in its capital structure, consistently maintains sufficient levels of cash and short-term investments to avoid having to sell securities at an inopportune time to pay claims, and has access to large, highly rated reinsurers for capital support.

Other Key Credit Considerations

Governance

FM Global's senior management has maintained its longstanding strategy of providing extensive and competitive property insurance capacity to commercial, industrial, and institutional policyholders who share its commitment to proactive risk mitigation. FM Global believes the majority of losses are preventable, and it works diligently with its insureds to help foster best-in-class loss-prevention plans. Management has significant depth and breadth in the business, reflecting its tendency to promote from within the company.

Liquidity

FM Global's liquidity is exceptional, and we don't expect liquidity constraints to keep it from meeting its policyholder obligations due to its strong operating cash flows. As an alternative to dividends, FM Global provides a membership credit to policyholders when these are justified by strong underwriting results. Receipt of the credit is contingent upon renewal or anniversary of an existing policy and is paid to the policyholder as a reduction of their renewal premium for the coming year as membership credit. And more recently, the company has implemented a first-of-its-kind resilience credit for eligible FM Global policyholders to invest in climate risk improvement.

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

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 alphanumerical 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 factors are a negative consideration in our credit rating analysis of FM Global. In our view, FM Global's potential earnings and capital volatility are high due to the nature of the insurance coverage FM Global provides. Because the company writes almost exclusively primary commercial property coverage with large limits, it is exposed to large individual losses from fires and accidents, as well as more widespread losses from natural catastrophe events. Therefore, underwriting results each year can fluctuate dramatically depending on the level of large loss or natural catastrophe activity. However, these risks are mitigated to a large degree by the company's substantial capital buffer at the 'AAA' level.

Related Criteria

- Criteria | Insurance | General: Insurers Rating Methodology, July 1, 2019
- General Criteria: Group Rating Methodology, July 1, 2019

- 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,

Appendix

Credit Metric History

Mil. $	2021	2020
S&P Global Ratings capital adequacy	AAA	AAA
Total invested assets	25,361	22,124
Total shareholder equity	19,369	16,494
Gross premium written	7,959	7,205
Net premium written	5,799	5,092
Net premium earned	5,504	4,706
EBIT	3,483	2,161
Net income (attributable to all shareholders)	2,842	1,732
Return on revenue (%)	21.98	12.82
Return on assets (excluding investment gains/losses) (%)	4.79	2.68
Return on shareholders' equity (%)	15.85	11.15
Property/casualty: Net combined ratio (%)	82.17	91.82
Property/casualty: Net expense ratio (%)	25.65	26.35

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 8, 2022)*

Operating Companies Covered By This Report	
Factory Mutual Insurance Co.	
Financial Strength Rating	
Local Currency	A+/Stable/--

Ratings Detail (As Of November 8, 2022)*(cont.)	
Issuer Credit Rating	
Local Currency	A+/Stable/--
Affiliated FM Insurance Co.	
Financial Strength Rating	
Local Currency	A+/Stable/--
Issuer Credit Rating	
Local Currency	A+/Stable/--
F.M. Insurance Co. Ltd.	
Financial Strength Rating	
Local Currency	A+/Stable/--
Issuer Credit Rating	
Local Currency	A+/Stable/--
FM Insurance Europe S A	
Financial Strength Rating	
Local Currency	A+/Stable/--
Issuer Credit Rating	
Local Currency	A+/Stable/--
Domicile	Rhode Island

*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.