

# Factory Mutual Insurance Company

## Key Rating Drivers

**Favorable Company Profile:** Factory Mutual Insurance Company (FM Global) maintains a strong franchise in the commercial property market for highly protected risks. In 2022, based on statutory results, FM Global held the No. 1 market share position in the boiler and machinery line of business among all U.S. property/casualty groups based on direct premiums written, representing roughly one-third of industrywide premiums. FM Global was also the largest writer of allied lines and fire business in 2022.

**Underwriting Results Improve:** The GAAP combined ratio was very strong at 67.3% through 9M23, including the impact of membership credits, compared with 69.7% in 9M22. The favorable rate environment for commercial property and manageable loss activity was reflected in very strong underwriting margin, consistent with long-term results.

FM Global's portfolio of property business is inherently volatile, as the company is one of the leading providers of large-limit commercial property capacity. However, the company's risk management sophistication, loss control and pricing expertise allowed it to achieve very strong financial performance over the long term.

**Very Strong Capitalization:** FM Global's capital position is very strong and remains well positioned to manage the inherent volatility of the group's results. FM Global's score in Fitch Ratings' Prism capital model remained at 'Extremely Strong' based on 2022 data. GAAP policyholders' surplus increased by approximately 12%, to \$20.6 billion through 9M23, largely the result of positive underwriting results and overall favorable investment returns.

**Liquid Investment Portfolio:** Fitch believes FM Global's high-quality, fixed-income portfolio provides ample liquidity to meet its policyholder obligations. As of Sept. 30, 2023, the company held nearly \$2.2 billion of consolidated cash and cash equivalents.

**Investment Risk:** FM Global's above-average allocation to equities moderated somewhat relative to recent periods, as the company increased diversification across risk assets in an effort to reduce expected portfolio volatility. FM Global's allocation of unaffiliated equities to total cash and invested assets on a GAAP basis was approximately 44% as of Sept. 30, 2023. The company's long-term total return philosophy enabled it to grow its book value over time and provides greater near-term uncertainty of investment portfolio returns.

**Financial Flexibility:** As a mutual insurer, the company's financial flexibility is somewhat limited relative to stock company peers. However, the company has no outstanding debt, which Fitch regards as a positive credit factor relative to other insurers rated 'AA'.

## Ratings

**Factory Mutual Insurance Company**  
Insurer Financial Strength AA

## Subsidiaries

Insurer Financial Strength AA

Note: See additional ratings on page 9.

## Outlooks

Insurer Financial Strength Stable

## Financial Data

Factory Mutual Insurance Company		
(\$ Mil.)	2021	2022
Net Premiums Earned	5,504	5,773
Net Income	2,842	-296
Combined Ratio (%)	83.1	76.7
Return on Surplus (%)	15.9	-1.6
Debt and Hybrids	—	—

Source: Factory Mutual Insurance Company

## Applicable Criteria

[Insurance Rating Criteria \(July 2023\)](#)

## Related Research

[Global Insurance Mid-Year Outlook 2023 \(June 2023\)](#)

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## Rating Sensitivities

### Factors that Could, Individually or Collectively, Lead to Positive Rating Action/Upgrade

- Fitch views a potential upgrade as somewhat limited by Fitch’s broader view of the risks inherent in the company’s profile;
- Consistent levels of strong capital associated with higher rating levels over a multiyear period, including a Prism capital model score of ‘Extremely Strong’;
- A material decline in common equity investments, reducing volatility in surplus.

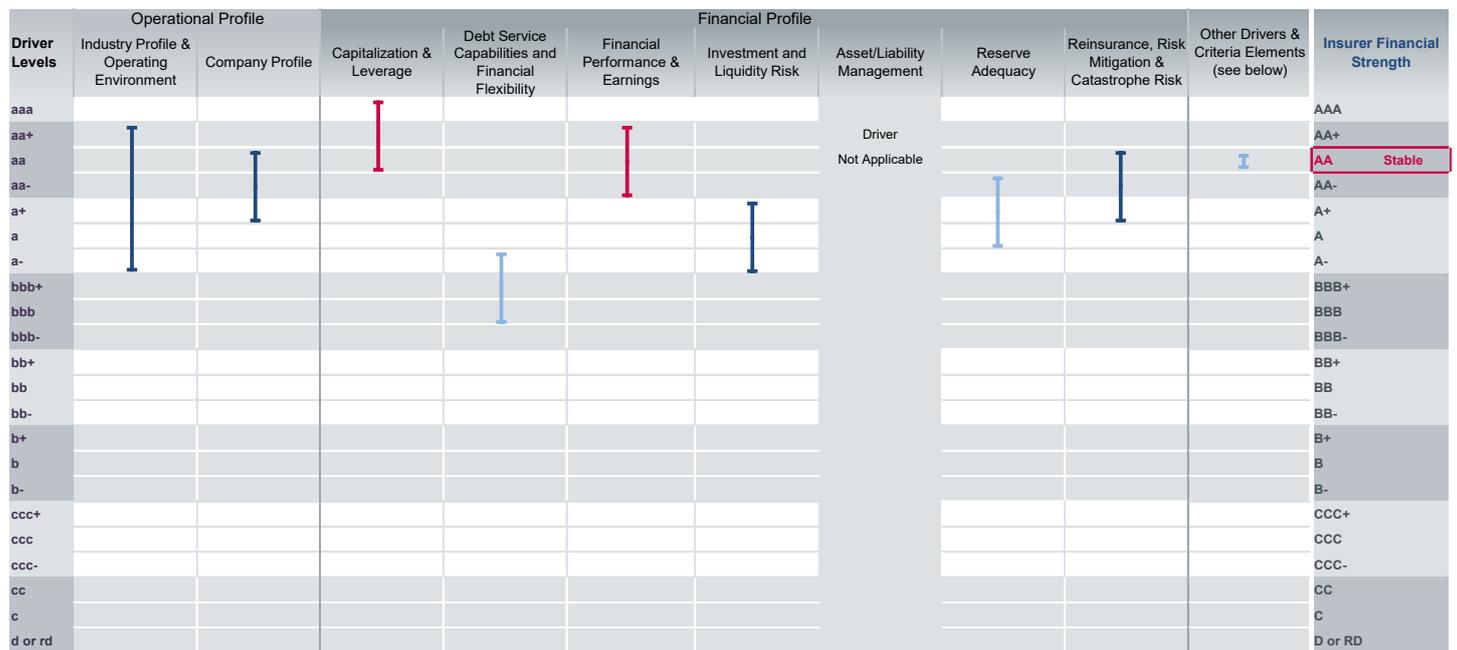
### Factors that Could, Individually or Collectively, Lead to Negative Rating Action/Downgrade

- Severe deterioration in long-term underwriting results, to the point where the company no longer outperforms its peers;
- Consolidated U.S. operating and net leverage approaching 0.75x and 1.75x, respectively;
- Significant deterioration in FM Global’s capitalization as measured by Fitch’s Prism capital model;
- A sustained period of net losses or catastrophe losses out of proportion with market share.

## Latest Developments

FM Global announced a \$350 million resilience credit in September 2023, provided to members to invest in climate resilience, providing them additional resources to guard against extreme weather hazards, such as flood, wind and wildfire. The credit will be applied as a 5% premium offset against FM Global policies with renewals or anniversaries between Oct. 1, 2023, and Sept. 30, 2024.

## Key Rating Drivers – Scoring Summary



Other Drivers & Criteria Elements				
Provisional Insurer Financial Strength Rating				AA
Non-Insurance Attributes	Positive	Neutral	Negative	+0
Ownership / Group Support	Positive	Neutral	Negative	+0
Transfer & Convertibility / Country Ceiling	Yes	No	AAA	+0
<b>Insurer Financial Strength Rating</b>				Final: <b>AA</b>
IFS Recovery Assumption	Good			-1
<b>Issuer Default Rating (IDR)</b>				Final: <b>n.a.</b>

Bar Chart Legend:	
Vertical Bars = Range of Rating Factor	Bar Arrows = Rating Factor Outlook
Bar Colors = Relative Importance	<ul style="list-style-type: none"> <li>↑ Positive</li> <li>↓ Negative</li> <li>↕ Evolving</li> <li>□ Stable</li> </ul>
<ul style="list-style-type: none"> <li>Higher Importance</li> <li>Average Importance</li> <li>Lower Importance</li> </ul>	

## Company Profile

### Strong Franchise in Commercial Property Insurance Market

Fitch ranks FM Global's business profile as a favorable compared with all other U.S. non-life insurers, due to the company's unique franchise, largely derived from its engineering capabilities and loss prevention services that are difficult for competitors to replicate. Given the favorable ranking, Fitch scores FM Global's business profile at 'aa-' under its rating guidelines and it carries a moderate weight.

FM Global maintains a strong franchise in the commercial property market for highly protected risks. In 2022, based on statutory results, FM Global held the No. 1 market share position in the boiler and machinery line of business among all U.S. property/casualty groups based on direct premiums written, representing roughly one-third of industrywide premiums. FM Global was also the largest writer of both fire and allied lines in 2022.

FM Global conducts onsite loss prevention and engineering reviews at the majority of its insured sites, including all of its larger policyholder sites, and Fitch believes that these reviews have a significant positive effect on the company's underwriting results. These results, Fitch believes, are due in part to the extensive engineering and loss prevention studies the company conducts at its state-of-the-art engineering test facility. Fitch views FM Global's ability to conduct these studies and the insights they bring to the company's underwriting process as key competitive advantages.

Fitch views FM Global's risk appetite as greater than that of the industry as the company provides capacity for large commercial risks and has the ability to offer large limits on property exposures. The company's underwriting portfolio of large property risks brings inherent volatility to FM Global's year to year operating performance. Fitch considers FM Global the industry leader in incorporating engineering expertise into insurance products and underwriting processes, which helps to mitigate the volatility in results.

FM Global writes business for commercial clients around the globe, providing the company with significant geographic diversification. The company maintains robust underwriting standards that are employed in the same manner for all of the properties around the world for which the company provides coverage. The organization employs approximately 2,000 loss prevention engineers that provide loss control expertise and provide consistency in underwriting practices around the globe.

Fitch also believes FM Global's dual product distribution methods provide diversification as the company uses direct distribution and brokers to market its products and maintains a relatively high degree of operational control over its distribution. The operations staff is comprised of engineers and underwriters, which complement the company's distribution channels and have a significant amount of client interaction.

### Company Profile Scoring

Business Profile Assessment	Favorable
Business Profile Subfactor Score	aa-
Corporate Governance Assessment	Favorable
Corporate Governance Impact (Notches)	0 notches
Company Profile Factor Score	aa-

Source: Fitch Ratings

## Ownership

### Mutual Ownership Is Neutral to the Ratings

FM Global is a mutual insurance company that specializes in providing engineered loss prevention services and high-limit commercial property coverage to its member clients. FM Global was formed in mid-1999 through the merger of Allendale Mutual Insurance Company, Protection Mutual Insurance Company and Arkwright Mutual Insurance Company. Prior to the merger, these companies shared an engineering and research facility, as well as ownership of FM Insurance Company, Ltd. (FMI), and participated in various reinsurance agreements with one another.

The company's primary domestic insurance subsidiaries are Affiliated FM Insurance Company (with its Canada branch) and Appalachian Insurance Company. The organization conducts insurance operations internationally through subsidiaries in Luxembourg (FM Insurance Europe S.A.), the U.K. (FMI) and Mexico (FM Global de Mexico, S.A.) and branch offices in Canada, Australia, New Zealand, Singapore, Hong Kong, India, South Korea and Labuan. Risk Engineering Insurance Company Limited is a wholly owned subsidiary of FM Global that only assumes business ceded to it from other FM Global group companies.

## Capitalization and Leverage

### Very Strong Capitalization Supports Rating Level

FM Global consistently grew policyholders' surplus in recent years, as the company remains well positioned to manage the inherent volatility of the group's results. GAAP policyholders' surplus increased by approximately 12%, to \$20.6 billion at 9M23, largely the result of positive underwriting results and overall favorable investment returns.

FM Global continues to use a conservative amount of operating leverage. At Dec. 31, 2022, the company's annualized ratio of net premiums written to statutory surplus was 0.3x, which is equal to the company's five-year average. Fitch believes FM Global's operating leverage remains supportive of the current rating level. FM Global issues no debt and accordingly uses zero financial leverage, which Fitch considers a positive rating factor.

FM Global's YE 2022 NAIC RBC ratio was 388% of the company action level, as the company maintains very strong levels of policyholders' surplus at the lead company. Fitch views the company's RBC ratio as being higher than many comparably rated peers.

The Prism capital model score remained in the 'Extremely Strong' category based on 2022 data, despite available capital declining during the period as consolidated surplus reported on a GAAP basis was pressured by unrealized investment losses in 2022. The Prism score remains supportive of current ratings. Results in 2023 are expected to benefit from surplus growth and expectations for continued improvement in underwriting results.

### Financial Highlights

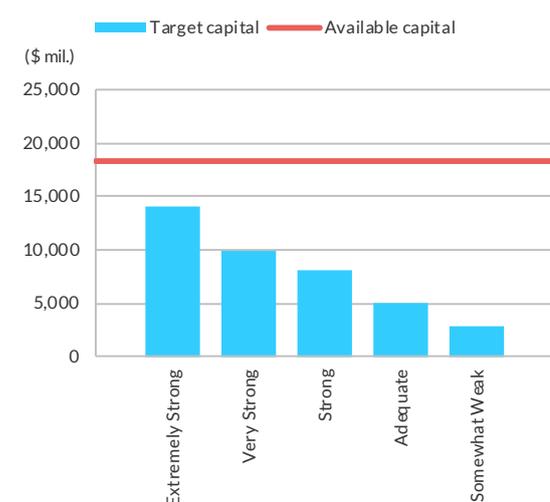
	2021	2022
Policyholders' Surplus (\$ Mil.)	17,858	17,560
Net Premiums Written/PHS (x)	0.3	0.3
Net Leverage (x)	0.8	0.8
Gross Leverage (x)	1.1	1.1
NAIC RBC Ratio (%) <sup>a</sup>	386	388

<sup>a</sup>Lead company RBC of the company action level.  
PHS – Policyholders' surplus. Note: Statutory accounting.  
Source: Fitch Ratings, S&P Global Market Intelligence

### Fitch's Expectations

- FM Global is expected to maintain very strong capitalization in 2024, measured by the low levels of underwriting and net leverage, solid NAIC RBC ratio, and a 'Very Strong' Prism score or better.
- Fitch forecasts GAAP net premiums written to surplus to remain near 0.3x through 2024. (See *Appendix C* for discussion of Fitch forecasts.)

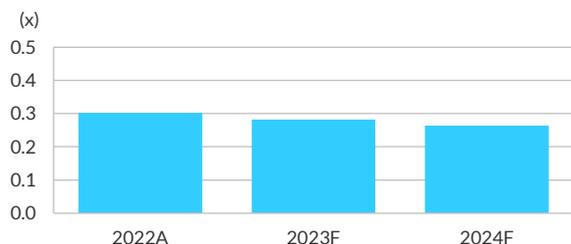
### 2022 Prism Score - Factory Mutual Insurance Company



(\$ Mil.)	2020	2021	2022
Prism Score	Extremely Strong	Extremely Strong	Extremely Strong
AC/TC at Prism Score (%)	159	141	130
AC/TC at Higher Prism Score (%)	N.A.	N.A.	N.A.
Statutory Surplus	15,359	17,858	17,560
Affiliated Investments	–	–	–
Unrealized Bond Gains/Losses	–	–	–
Other Adjustments	967	1,326	704
Available Capital	16,326	19,184	18,264
<b>Target Capital Contributors (%)</b>			
Underwriting	33	30	32
Reserves	3	5	3
Investments	19	18	18
Catastrophe	23	22	23
Other	22	25	25

AC – Available capital. TC – Target capital. N.A. – Not applicable.  
Source: Fitch Ratings, S&P Global Market Intelligence

### Fitch Forecast — Net Premiums Written to Surplus



A - Actual. F - Forecast. Note: Fitch estimate of consolidated Property/Casualty statutory results. See Appendix C for more information on forecasts.

Source: Fitch Ratings

## Debt Service Capabilities and Financial Flexibility

### Strong Liquidity with No Debt to Service

Fitch views FM Global’s financial flexibility and debt service to be weaker than that of peers with public ownership and lower than the current rating category. Overall, financial flexibility has a lower influence in determining FM Global’s ratings.

As a mutual insurer, FM Global has no access to the equity capital markets. The company also has limited access to the debt capital markets, thus reducing the financial flexibility of the company. However, management’s strategy accounts for this and manages the company’s cash flows accordingly.

FM Global has never issued debt through the capital markets and the company’s capital structure consists entirely of policyholder-owned funds.

FM Global maintains a significant balance of cash and cash equivalents that provides liquidity to fund losses in the underwriting portfolio and limits the need for additional liquidity from third-party sources.

#### Financial Highlights

(\$ Mil.)	2021	2022
Cash and Cash Equivalents	1,840	2,132
Long-Term Debt	—	—
Interest Expense	—	—

Note: Reported on a GAAP basis

Source: Factory Mutual Insurance Company annual reports

#### Fitch’s Expectations

- FM Global is expected to maintain the current strong level of liquidity.

## Financial Performance and Earnings

### Long-Term Underwriting Success with Potential for Volatility

FM Global’s 9M23 GAAP combined ratio was very strong at 67.3%, compared to its five-year average (2018–2022) of 92.3%. The company’s portfolio of property business is inherently volatile, as the company is one of the leading providers of large limit commercial property capacity. However, the company’s risk management sophistication, loss control and pricing expertise allowed the company to achieve very strong financial performance over the long term. Fitch continues to view the company’s long-term results as supportive of its ratings.

The company’s operating performance over the long term has been very strong, despite exposure to periodic catastrophe losses, reflecting the company’s underwriting expertise, expense efficiencies and generally favorable market conditions. Fitch believes there is a significant amount of inherent volatility in FM Global’s year to year operating performance because of the company’s large book of property insurance and its corresponding exposure to natural and man-made catastrophe-related losses. Due to this potential volatility, Fitch believes FM Global’s underwriting results are best viewed on a cumulative basis over a relatively long period.

FM Global announced that eligible policyholders would collectively receive an estimated \$800 million in membership credits when they renewed their policies in 2023. The payment of membership credits effectively reduces the level of

net earned premium reported by the company. The GAAP combined ratio through 9M23 included 7.1 percentage points related to membership credits, compared to 4.9 points for 2022.

## Financial Highlights

(\$ Mil.)	2021	2022
Net Premiums Earned	5,504	5,773
Net Income	2,842	-296
Combined Ratio (%)	83.1	76.7
Operating Ratio (%)	74.3	66.3
Return on Surplus (%)	15.9	-1.6

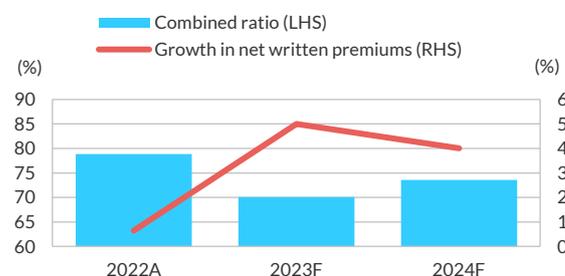
Note: Reported on a GAAP basis.

Source: Factory Mutual Insurance Company annual reports.

## Fitch's Expectations

- FM Global's underwriting results in 2024 are expected to remain at levels comparable with the company's long-term results, assuming normal catastrophe experience.
- Net premium growth is forecast by Fitch to remain strong through 2024 in the midsingle digits.

## Fitch Forecast – Financial Performance



A – Actual. F – Forecast. Note: Fitch estimate of consolidated P/C statutory results. See Appendix C for more information on forecasts.  
Source: Fitch Ratings

## Investment and Asset Risk

### Large Allocation to Equity Risk with Strong Liquidity

FM Global's investment portfolio is managed on a total return basis with a long-term investment horizon. The company invests in fixed-income securities to support the relatively short-duration liabilities generated by its property insurance reserves and equities to support surplus growth. As a result, FM Global is significantly overweight in common stock investments relative to the industry.

FM Global's above-average allocation to equities moderated somewhat relative to recent periods, as the company increased diversification across risk assets in an effort to reduce expected portfolio volatility. FM Global's allocation of unaffiliated equities to total cash and invested assets on a GAAP basis was approximately 44%, as of Sept. 30, 2023. The company's long-term total return philosophy enabled it to grow its book value over the years and produces greater near-term uncertainty of investment portfolio returns.

FM Global's bond portfolio exhibits high credit quality and liquidity, with modest exposure to below-investment-grade bonds. At Dec. 31, 2022, approximately 91% of the statutory combined group fixed-income portfolio consisted of NAIC 1 and 2 bonds, up from 84% in 2021. Statutory surplus exposure to risky assets declined to 74% at YE 2022, down from 82% at YE 2021.

**Financial Highlights**

(\$ Mil.)	2021	2022
Cash and Invested Assets	25,271	24,119
Cash and Invested Assets/Surplus (x)	1.4	1.4
Investment Yield (%)	1.5	1.1
Risky Asset Ratio (%)	82	74
Risk Weighted Liquidity Ratio (%)	428	422

Note: Statutory accounting  
Source: Fitch Ratings, S&P Global Market Intelligence

**Fitch's Expectations**

- The company is expected to maintain an above-average investment allocation to equity securities, which is consistent with its long-term total return strategy.

**Reserve Adequacy**

**History of Moderate Favorable Reserve Experience**

Fitch believes FM Global's loss reserves are adequate and that the company follows a disciplined approach when establishing reserves. Fitch also believes that the relatively short duration of FM Global's reserves reduces reserve uncertainty. The vast majority of the company's loss reserves tend to develop into paid losses within three years.

Fitch uses a reserve adequacy model, and reported paid loss and incurred loss data from Schedule P are used to estimate ultimate accident-year losses and required accident-year reserves. Using FM Global's YE 2022 data, Fitch's model estimates an adequate level of reserves using paid loss data and case-incurred data.

FM Global's long-term reserve experience has displayed conservatism in setting the company's reserves that compare favorably with peers and the overall industry.

Fitch believes that FM Global's reserves for asbestos-related claims are strong and, unlike many of its peers, FM Global bolstered its asbestos reserves while still generating strong calendar-year profitability. Unfavorable development on asbestos-related reserves has not been reported since 2017.

The company's gross and net survival ratios based on three-year average paid asbestos losses were 31.7x and 31.5x, respectively, at YE 2022. Fitch also believes that FM Global has solid reserves for environmental claims. At YE 2022, the company's gross and net survival ratios based on three-year average paid environmental losses were 44.4x and 46.5x, respectively. Net asbestos and environmental reserves totaled \$615 million at YE 2022, representing approximately 17% of FM Global's overall statutory net loss and loss adjustment expense reserves.

**Financial Highlights**

(\$ Mil.)	2021	2022
Loss Reserves	3,560	3,463
Loss Adjustment Expense Reserves	267	249
Discontinued Lines Reserve Development	—	—
Other Adverse (Favorable) Reserve Development	-119	190
Reserve Development/Premiums Earned (%)	-2.4	3.6

Note: Statutory accounting  
Source: Fitch Ratings, S&P Global Market Intelligence

**Fitch's Expectations**

- Maintenance of the adequate reserve position is expected.

**Reinsurance, Risk Mitigation and Catastrophe Risk**

**Strong Focus on Risk Management**

Fitch believes that FM Global's reinsurance programs provide adequate protection against the large losses the company could face and that the credit quality of the company's reinsurers is good. FM Global has a significant exposure to natural and man-made catastrophic losses from its large book of property insurance. As a result, Fitch believes that reinsurance is a very important component of FM Global's risk management process.

FM Global's excess of loss reinsurance program consists of a per-risk program and a catastrophe program. The per-risk program provides the company with coverage on individual claim losses in excess of \$300 million for FM Global, with a \$75 million retention for Affiliated FM. The company's catastrophe reinsurance program separately provides coverage on catastrophe losses from all perils in excess of \$450 million.

FM Global uses a diverse mix of financially sound reinsurers, and Fitch believes the overall credit quality of the company's reinsurance recoverable is strong. FM Global's most substantial reinsurance recoverable exposures are to large companies with high credit ratings, such as Swiss Re Group and Munich Re Group, which provide Fitch with confidence in FM Global's ability to recover funds owed to the company in the wake of a large claim.

FM Global manages its capital by examining catastrophe exposure using a probabilistic approach relative to capital and by evaluating growth in total insured values relative to growth in surplus. The company uses location-based insured data to determine its exposure in catastrophe-prone areas. As such, the company performs a ground-up analysis and does not rely solely on catastrophe model simulations to determine its potential shock losses.

Fitch also believes the quality of data FM Global uses in its catastrophe exposure analysis is enhanced by the engineering standards it maintains and data collected in relation to its insured properties.

## Financial Highlights

(x)	2021	2022
Net Premium Written to Gross Premium Written	73	71
Reinsurance Recoverables to Capital	20	19

Note: Statutory accounting.

Source: Fitch Ratings, S&P Global Market Intelligence

## Fitch's Expectations

- FM Global is expected to continue to utilize industry-leading risk assessment and loss prevention expertise in its underwriting of its commercial property portfolio.
- The company is expected to maintain use of its robust risk transfer program as part of its overall risk management strategy.

## Appendix A: Peer Analysis

### Peer Comparison

Click [here](#) for a report that shows a comparative peer analysis of key rating driver scoring.

## Appendix B: Industry Profile and Operating Environment

### Industry Profile and Operating Environment (IPOE)

Click [here](#) for a link to a report that summarizes the main factors driving the above IPOE score.

## Appendix C: Other Rating Considerations

Below is a summary of additional ratings considerations that are part of Fitch's *Insurance Rating Criteria*.

### Group Insurance Financial Strength (IFS) Rating Approach

Fitch considers all rated subsidiaries as Core, thus Fitch applies a group rating methodology as the company has the willingness and ability to provide support to group members. FM Global is a party to a pooling arrangement with its wholly owned subsidiaries Appalachian Insurance Co. and Affiliated FM Insurance Co. As a result of the pooling agreement, Fitch considers these U.S.-based insurance subsidiaries to be Core. U.K.-domiciled FMI; Luxembourg-domiciled FM Insurance Europe S.A.; and Mexico-domiciled FM Global de Mexico, S.A. benefit from significant reinsurance support from FM Global as well policy level guarantees. Risk Engineering Insurance Company Limited is a wholly owned subsidiary of FM Global that only assumes business ceded to it from other FM Global group companies, leading to the status of Core. All operating companies have a 'AA' IFS rating based on a combined group assessment.

### Group Ratings Table

	Type	Rating	Outlook
Factory Mutual Insurance Company	IFS	AA	Stable
Affiliated FM Insurance Company	IFS	AA	Stable
Appalachian Insurance Company	IFS	AA	Stable
FM Insurance Company Limited	IFS	AA	Stable
FM Insurance Europe S.A.	IFS	AA	Stable
FM Global de Mexico, S.A. de C.V.	IFS	AA	Stable
Risk Engineering Insurance Company Limited	IFS	AA	Stable

Source: Fitch Ratings

### Notching

#### Notching Summary

##### IFS Ratings

A baseline recovery assumption of Good applies to the IFS rating, and standard notching was used from the IFS "anchor" rating to the implied operating company IDR.

##### Holding Company IDR

No holding company relationship exists.

##### Holding Company Debt

The company issues no debt.

##### Hybrids

The company issues no hybrid securities.

IFS – Insurer Financial Strength. IDR – Issuer Default Rating.

### Short-Term Ratings

Not applicable.

### Hybrid – Equity/Debt Treatment

Not applicable.

## **Transfer and Convertibility Risk (Country Ceiling)**

None.

## **Criteria Variations**

None.

## **About Fitch Forecasts**

The forecasts shown in the main body of this report reflect Fitch's forward views from a credit perspective. They are based on a combination of Fitch's macroeconomic forecasts and viewpoints, outlook at the sector level and company-specific considerations developed by Fitch. As a result, Fitch's forecasts may differ, at times materially, from earnings and other guidance provided by a rated entity to the market. To the extent Fitch is aware of material, nonpublic information on likely future events, such as a planned recapitalization or M&A activity, Fitch will not reflect these likely future events in its forecasts. This practice is to assure that such material nonpublic information is not inadvertently disclosed. However, as relevant, such information is considered by Fitch as part of the broader ratings process.

## Appendix D: Environmental, Social and Governance Considerations

### Credit-Relevant ESG Derivation

### ESG Relevance to Credit Rating

Factory Mutual Insurance Company has 8 ESG potential rating drivers			key driver	0	issues	5
<ul style="list-style-type: none"> <li>Factory Mutual Insurance Company has exposure to underwriting/reserving exposed to asbestos/hazardous materials risks but this has very low impact on the rating.</li> <li>Factory Mutual Insurance Company has exposure to underwriting/reserving exposed to environmental and natural catastrophe risks; impact of catastrophes on own operations or asset quality; credit concentrations but this has very low impact on the rating.</li> <li>Factory Mutual Insurance Company has exposure to compliance risk; treating customers fairly; pricing transparency; privacy/data security; legal/regulatory fines; exposure to insured and own cyber risk but this has very low impact on the rating.</li> <li>Factory Mutual Insurance Company has exposure to social responsibility and its effect on brand strength; increased vulnerability due to credit concentrations but this has very low impact on the rating.</li> <li>Governance is minimally relevant to the rating and is not currently a driver.</li> </ul>	driver	0	issues	4		
	potential driver	8	issues	3		
	not a rating driver	1	issues	2		
		5	issues	1		

### Environmental (E) Relevance Scores

General Issues	E Score	Sector-Specific Issues	Reference	E Relevance
GHG Emissions & Air Quality	1	n.a.	n.a.	5
Energy Management	1	n.a.	n.a.	4
Water & Wastewater Management	1	n.a.	n.a.	3
Waste & Hazardous Materials Management, Ecological Impacts	3	Underwriting/reserving exposed to asbestos/hazardous materials risks	Capitalization & Leverage; Financial Performance & Earnings; Reserve Adequacy; Reinsurance, Risk Mitigation & Catastrophe Risk	2
Exposure to Environmental Impacts	3	Underwriting/reserving exposed to environmental and natural catastrophe risks; impact of catastrophes on own operations or asset quality; credit concentrations	Capitalization & Leverage; Financial Performance & Earnings; Reserve Adequacy; Reinsurance, Risk Mitigation & Catastrophe Risk; Investment & Asset Risk	1

#### How to Read This Page

ESG relevance scores range from 1 to 5 based on a 15-level color gradation. Red (5) is most relevant to the credit rating and green (1) is least relevant.

The Environmental (E), Social (S) and Governance (G) tables break out the ESG general issues and the sector-specific issues that are most relevant to each industry group. Relevance scores are assigned to each sector-specific issue, signaling the credit-relevance of the sector-specific issues to the issuer's overall credit rating. The Criteria Reference column highlights the factor(s) within which the corresponding ESG issues are captured in Fitch's credit analysis. The vertical color bars are visualizations of the frequency of occurrence of the highest constituent relevance scores. They do not represent an aggregate of the relevance scores or aggregate ESG credit relevance.

The Credit-Relevant ESG Derivation table's far right column is a visualization of the frequency of occurrence of the highest ESG relevance scores across the combined E, S and G categories. The three columns to the left of ESG Relevance to Credit Rating summarize rating relevance and impact to credit from ESG issues. The box on the far left identifies any ESG Relevance Sub-factor issues that are drivers or potential drivers of the issuer's credit rating (corresponding with scores of 3, 4 or 5) and provides a brief explanation for the relevance score. All scores of '4' and '5' are assumed to result in a negative impact unless indicated with a '+' sign for positive impact.

Classification of ESG issues has been developed from Fitch's sector ratings criteria. The General Issues and Sector-Specific Issues draw on the classification standards published by the United Nations Principles for Responsible Investing (PRI), the Sustainability Accounting Standards Board (SASB), and the World Bank.

### Social (S) Relevance Scores

General Issues	S Score	Sector-Specific Issues	Reference	S Relevance
Human Rights, Community Relations, Access & Affordability	1	n.a.	n.a.	5
Customer Welfare - Fair Messaging, Privacy & Data Security	3	Compliance risk; treating customers fairly; pricing transparency; privacy/data security; legal/regulatory fines; exposure to insured and own cyber risk	Industry Profile & Operating Environment; Company Profile; Reserve Adequacy	4
Labor Relations & Practices	2	Impact of labor negotiations, including board/employee compensation and composition	Company Profile	3
Employee Wellbeing	1	n.a.	n.a.	2
Exposure to Social Impacts	3	Social responsibility and its effect on brand strength; increased vulnerability due to credit concentrations	Company Profile; Investment & Asset Risk; Financial Performance & Earnings; Reinsurance, Risk Mitigation & Catastrophe Risk	1

### Governance (G) Relevance Scores

General Issues	G Score	Sector-Specific Issues	Reference	G Relevance
Management Strategy	3	Operational implementation of strategy	Company Profile	5
Governance Structure	3	Board independence and effectiveness; ownership concentration; protection of creditor/stakeholder rights; legal/compliance risks; business continuity; key person risk; related party transactions	Company Profile	4
Group Structure	3	Organizational structure; appropriateness relative to business model; opacity, intra-group dynamics; ownership	Company Profile; Ownership	3
Financial Transparency	3	Quality and timing of financial reporting and auditing processes	Company Profile	2
				1

CREDIT-RELEVANT ESG SCALE	
How relevant are E, S and G issues to the overall credit rating?	
5	Highly relevant, a key rating driver that has a significant impact on the rating on an individual basis. Equivalent to "higher" relative importance within Navigator.
4	Relevant to rating, not a key rating driver but has an impact on the rating in combination with other factors. Equivalent to "moderate" relative importance within Navigator.
3	Minimally relevant to rating, either very low impact or actively managed in a way that results in no impact on the entity rating. Equivalent to "lower" relative importance within Navigator.
2	Irrelevant to the entity rating but relevant to the sector.
1	Irrelevant to the entity rating and irrelevant to the sector.

## ESG Considerations

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