



Best's Credit Rating Effective Date

January 27, 2023

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Information

[Best's Credit Rating Methodology](#)

[Guide to Best's Credit Ratings](#)

[Market Segment Outlooks](#)

Financial Data Presented

Financial data in this report: (i) includes data of affiliated entities that are not rating unit members where analytics benefit from inclusion; and/or (ii) excludes data of rating unit member entities if they operate in different segments or geographic areas than the Rating Unit generally. See [list of companies](#) for details of rating unit members and any such included and/or excluded entities.

The financial data in this report reflects the most current data available to the Analytical Team at the time of the rating. Updates to the financial exhibits in this report are available here: [Best's Financial Report](#).

FM Global Group

AMB #: 018502

Associated Ultimate Parent: AMB # 004067 - Factory Mutual Insurance Company

Best's Credit Ratings - for the Rating Unit Members

Financial Strength Rating (FSR)

A+
Superior
Outlook: Stable
Action: Affirmed

Issuer Credit Rating (ICR)

aa
Superior
Outlook: Stable
Action: Affirmed

Assessment Descriptors

Balance Sheet Strength	Strongest
Operating Performance	Strong
Business Profile	Favorable
Enterprise Risk Management	Appropriate

Rating Unit - Members

Rating Unit: FM Global Group | AMB #: 018502

AMB #	Rating Unit Members
000103	Affiliated FM Insurance Co
002345	Appalachian Insurance Company
086513	FM Insurance Company Limited

AMB #	Rating Unit Members
095193	FM Insurance Europe S.A.
004067	Factory Mutual Insurance Co

Rating Rationale

Balance Sheet Strength: **Strongest**

- FM Global maintains the strongest level of risk-adjusted capitalization, as measured by Best's Capital Adequacy Ratio (BCAR). The group's balance sheet has been time-tested as a leading global property insurer with the ability to withstand catastrophes year over year.
- Substantial reinsurance capacity for CATs and terrorism mitigation plays an integral role in preserving capital.
- Solid surplus growth through earnings, as well as significant capital gains.
- Equity leverage is consistently higher than that of the composite at approximately one-half of surplus, generating significant long-term gains through prudent management, but it exposes the balance sheet to periodic market corrections. As a privately owned mutual group, management is able to take a long view on its investment horizons and ride out market swings.

Operating Performance: **Strong**

- Historical operating performance is generally strong, with non-catastrophe trends neutral/slightly positive, and prospective operating performance is expected to be strong. However, volatility due to natural CAT losses is moderate to high.
- Above-average underwriting performance reflective of FM Global's leadership position in insuring highly protected risks (HPR), which utilizes an approach that requires holistic prevention to identify and mitigate incidents before they happen.
- Accident year (AY) loss reserve development has been generally favorable. Legacy asbestos and environmental reserves are long-dated and have been benign.

Business Profile: **Favorable**

- FM Global is a well-recognized, global market leader in the commercial and industrial property insurance segment.
- Strong, defensible competitive advantages through its global reach, extensive engineering expertise and risk mitigation / loss prevention services.
- Diversified operations in key markets that have moderate to high barriers to entry with low competition.
- Strong management team coupled with highly effective research-based engineering and a strong reinsurance program.
- Innovation is assessed positively. FM Global does things differently than other insurers in that it relies on engineers versus actuaries. Its credo is stated in its ORSA document that 'the majority of loss is preventable and that any loss can be minimized.' This philosophy is tightly woven by its management and leadership into its culture and business activities, and it is manifested in the organization's results.

Enterprise Risk Management: **Appropriate**

- FM Global has demonstrated excellent ERM through loss control and minimization recommendations implemented by its policyholders that have generated a long track record of strong operating profitability, driving balance sheet strength that AM Best assesses as "Strongest."
- The insurer's ERM framework is embedded and appropriate given the size and complexity of its operations. Risk management capabilities are well aligned with the risk profile of the group.
- The group is a well-run organization that has been a consistent property and casualty insurer with a strong and experienced management team.
- FM Global has an all-encompassing framework and plan instilled in its corporate culture to effectively identify, measure, monitor, report and control or mitigate both its internal and external sources of risk.

Outlook

- The stable outlooks reflect AM Best's expectation that FM Global's risk-based capitalization and operating performance will continue to exhibit generally excellent trends. AM Best recognizes FM Global management's risk management capabilities that should continue to generate commensurately strong returns in its niche business model of providing calculated risk coverages at high levels for highly protected industrial property risks. The group's risk tolerance periodically results in volatile underwriting results from CAT events that management has successfully navigated over the group's long history.

Rating Drivers

- Negative rating action could result if operating performance deteriorates materially relative to its strong assessment.
- Negative rating action could occur if risk-based capitalization is materially weakened by deteriorating non-CAT underwriting trends or following a prolonged equity market downturn.

Key Financial Indicators

Best's Capital Adequacy Ratio (BCAR) Scores (%)

Confidence Level	95.0	99.0	99.5	99.6
BCAR Score	65.2	55.2	51.1	50.1

Source: Best's Capital Adequacy Ratio Model - P/C, US

Key Financial Indicators USD (000)	9-Months		Year End - December 31				
	2022	2021	2021	2020	2019	2018	2017
Premiums Written:							
Direct	4,289,150	4,149,620	5,602,979	5,134,211	4,490,385	3,928,922	3,550,622
Assumed*	1,604,769	1,537,777	1,362,515	1,241,173	1,038,813	1,002,058	955,569
Ceded*	1,923,913	1,750,704	1,690,548	1,677,268	1,521,582	1,302,396	1,082,896
Net	3,970,005	3,936,692	5,274,947	4,698,115	4,007,616	3,628,584	3,423,295
Net Operating Income	1,493,740	582,738	626,635	399,765	805,611	-852,823	-569,066
Net Income	1,881,691	1,092,459	1,581,887	1,087,179	1,474,489	-103,165	-363,668
Total Admitted Assets	25,934,825	27,305,773	27,694,148	24,272,966	21,906,959	20,423,211	20,660,155
Policyholders' Surplus	16,636,057	17,708,470	17,858,295	15,358,701	13,707,656	11,241,267	12,501,777

Source: BestLink® - Best's Financial Suite

*Quarterly premiums include affiliated reinsurance premiums that are eliminated in annual assumed and ceded values.

Key Financial Ratios (%)	9-Months		Year End - December 31					Weighted Average
	2022	2021	2021	2020	2019	2018	2017	
Profitability:								
Combined Ratio	70.9	73.2	81.3	92.2	81.5	138.6	138.3	103.6
Reserve Development Combined Ratio Impact	-0.5	-2.9	-3.0	-4.2	-12.1	-2.1	-2.9	-4.8
Net Investment Yield	1.1	1.4	1.5	1.2	2.0	1.9	1.8	1.7
Pre-Tax Operating Return on Net Earned Premiums	35.4	32.0	24.5	10.8	26.5	-29.9	-28.3	3.2
Net Income Return on Policyholders' Surplus	14.5	8.8	9.5	7.5	11.8	-0.9	-3.0	5.4
Total Return on Policyholders' Surplus	-6.4	16.0	14.5	12.1	20.1	-11.0	10.4	9.8
Leverage:								
Net	0.9	0.8	0.8	0.9	0.9	1.1	0.9	...
Gross	...	...	1.1	1.2	1.2	1.4	1.2	...
Non-affiliated Investment	68.8	72.1	74.4	68.4	63.2	68.9	73.6	...

Source: BestLink® - Best's Financial Suite

Credit Analysis

Balance Sheet Strength

The overall balance sheet strength assessment is strongest.

Capitalization

The group has generated robust growth in its' policyholder surplus over the past 10 years at a ten-year compound average growth rate of approximately 10.8% (as of YE 2021). Since declining 10% in 2018 due to underwriting losses and market volatility in the fourth quarter, surplus grew at solid double digit rates in the three most recent years, alongside more favorable equity market conditions.

Balance Sheet Strength (Continued...)

Through the first nine months of 2022, the group's surplus declined \$1.2 billion or 6.8%, as solid underwriting results and stable investment income were more than offset by changes in unrealized gains/(losses).

FM Global's balance sheet continues to demonstrate its resilience as the group continued to grow capital and surplus at a growth rate that outperforms the industry average, notwithstanding the ongoing Covid-19 challenges and the elevated level of catastrophe (CAT) losses that occurred, especially in 2017 and 2018, FM Global experienced an approximately average CAT year in 2021. Risk-adjusted capitalization more than adequately supports FM Global's risks at the highest confidence intervals, as measured by Best's Capital Adequacy Ratio (BCAR). This favorable capital position is reflective of the group's conservative underwriting leverage, slightly offset by FM Global's elevated common stock leverage and comparatively high level of high risk (schedule BA) assets. Although the group maintains exposure to natural and man-made catastrophes, these risks are mitigated through an extensive risk management program and reinsurance which mitigates FM Global's net exposures to levels in line with the group's capital level. In addition, the company has increased rates over the past couple of years in the hardening and CAT-prone market while selectively reducing its total insured values as well.

The group has achieved solid surplus growth through operating earnings, along with steady investment income. Future surplus growth, however, could be tempered by sudden swings in the equities markets, like the ones that have occurred in the most recent year. Based on the group's history, the expectation is that underwriting profits will continue to favorably impact surplus over the medium term, with results dipping in select years under heightened loss experience. AM Best expects risk-adjusted capitalization will remain at the strongest levels over the medium term. The expectation includes consideration for equity market volatility, a normalized level of natural catastrophes, absence of a major terrorist event. It also includes AM Best's comfort and understanding of FM Global's risk management capability to effectively manage through any potential Covid-related Business Interruption claim filings.

Capital Generation Analysis USD (000)	9-Months		Year End - December 31				
	2022	2021	2021	2020	2019	2018	2017
Beginning Policyholders' Surplus	17,858,295	15,358,701	15,358,701	13,707,656	11,241,267	12,501,777	11,519,356
Net Operating Income	1,493,740	582,738	626,635	399,765	805,611	-852,823	-569,066
Net Realized Capital Gains (Losses)	387,952	509,722	955,252	687,413	668,879	749,659	205,398
Net Unrealized Capital Gains (Losses)	-2,716,025	893,327	822,777	668,614	1,028,199	-1,207,144	1,608,234
Stockholder Dividends	-166	...	-333	-333	-333	-333	-333
Other Changes in Capital and Surplus	-387,737	363,982	95,263	-104,416	-35,966	50,130	-261,812
Net Change in Policyholders' Surplus	-1,222,238	2,349,769	2,499,594	1,651,044	2,466,390	-1,260,510	982,421
Ending Policyholders' Surplus	16,636,057	17,708,470	17,858,295	15,358,701	13,707,656	11,241,267	12,501,777
Net Change in Policyholders' Surplus (%)	-6.8	15.3	16.3	12.0	21.9	-10.1	8.5
Net Change in Policyholders' Surplus (5 yr CAGR)	...	...	9.2	...	...	...	...

Source: BestLink® - Best's Financial Suite

Liquidity Analysis	9-Months		Year End - December 31				
	2022	2021	2021	2020	2019	2018	2017
Net Operating Cash Flow USD (000)	792,759	1,203,531	1,090,982	474,857	-383,042	-26,079	192,324
Current Liquidity (%)	186.9	197.4	193.2	190.3	185.2	160.6	189.5

Source: BestLink® - Best's Financial Suite

Asset Liability Management - Investments

FM Global invests its assets in a manner that is designed to ensure adequate liquidity to fund future liabilities. To the extent that its total assets exceed its liabilities (i.e. surplus), excess assets are generally invested in equity securities in accordance with management's view of a long term investment horizon.

The group's common stock leverage is well above its peer composite average (by design), but has declined over the years. FM Global's risk-based capitalization has not been meaningfully impacted by this asset risk, even with the equity market swings observed since late 2018, which have subsequently more than recovered as of this writing.

Balance Sheet Strength (Continued...)

Approximately one-third of total investments are in long term bonds. The group also invests in high risk assets consisting of real estate held by an affiliate and in numerous joint ventures, partnerships and private equity and limited liability corporations. These investments represent approximately 10% of the group's investment portfolio and approximately 15% of surplus.

Volatile investment market conditions during 2022 resulted in the group reporting a -\$2.7 billion change in unrealized gains/(losses) as of September 30th.

Liquidity

FM Global's balance sheet is sound, with invested assets exceeding liabilities by comfortable margins. Current and quick liquidity measures compare favorably to industry composite norms and are enhanced by strong underwriting and operating cash flows. With the implementation of higher deductibles and attachment points, as well as ongoing rate adequacy, and engineering and loss control initiatives, cash flows from underwriting and operations have remained strong since 2002. Given the group's historically strong cash flows and solid risk-based level of capitalization, FM Global is largely protected against the need to liquidate any investments at a loss in order to meet its cash needs. AM Best expects cash flows from operations to remain strong in the medium term.

Composition of Cash and Invested Assets	9-Months		Year End - December 31				
	2022	2021	2021	2020	2019	2018	2017
Total Cash and Invested Assets USD (000)	23,338,787	25,202,387	25,271,135	22,356,408	19,748,796	18,317,283	19,000,390
Composition Percentages (%)							
Unaffiliated:							
Cash and Short Term Investments	6.9	6.7	4.8	4.8	6.4	8.2	6.9
Bonds	32.5	29.8	31.2	35.0	35.6	36.6	32.2
Stocks	33.6	36.8	37.8	34.2	34.4	35.3	41.9
Other Invested Assets	10.7	10.5	10.3	9.5	7.1	5.2	4.8
Total Unaffiliated	83.8	83.8	84.1	83.4	83.6	85.3	85.7
Investments in Affiliates	16.2	16.2	15.9	16.6	16.4	14.7	14.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: BestLink® - Best's Financial Suite

Bonds and Short Term Investments - Distribution by Maturity (%)	Years					Average (Years)
	0-1	1-5	5-10	10-20	20+	
Government Bonds	0.4	13.7	8.0	0.1	1.0	5.6
Government Agencies and Municipal Bonds	1.1	9.1	9.1	4.4	12.8	13.2
Industrial and Miscellaneous Bonds	0.7	19.9	14.0	1.5	3.3	6.8
Bank Loans	...	0.4	0.3	...	0.1	7.6
Total Bonds	2.2	43.2	31.4	6.0	17.3	8.9

Source: BestLink® - Best's Financial Suite

Reserve Adequacy

The group has reported favorable loss reserve development across most accident years driven by the recognition of redundancies in property lines of business, with some adverse development occasionally recorded for asbestos & environmental (A&E) losses.

According to AM Best's estimates, FM Global ranks among the top 30 largest carriers in the United States in terms of its potential exposure to asbestos and environmental claims, with an historical market share (based on net premiums) of 0.2%. FM Global reported approximately \$628.9 million in net A&E reserves at year-end 2021, with 84% of this amount pertaining to asbestos liabilities. The group's net A&E reserves represent approximately 15% of its overall net loss reserve base and less than 5% of consolidated surplus. A considerable portion of the group's potential A&E liability stems from its discontinued assumed reinsurance business, which poses more uncertainty than primary business due to its reliance on ceding companies for claims information. Also, claim payments tend to develop more slowly than for primary insurers. The group maintains a centralized claims unit that continues to evaluate, monitor and process claims.



Balance Sheet Strength (Continued...)

In 2021, the group reported \$119.4 million of favorable development on a calendar year basis. The development was driven by a large amount of redundancy on the 2020 accident year. In 2021, more recent accident years (2016 - 2020) developed favorably while reserves for older accident years (2012 - 2015) were strengthened modestly. Post-CAT events, the group has typically reported favorable development. The rationale for this is that historically, actual claims for catastrophe events have been significantly lower than their modeled output.

Loss and Loss Adjustment Expense Reserves and Development - Calendar Year	9-Months		Year End - December 31				
	2022	2021	2021	2020	2019	2018	2017
Loss and ALAE* Reserves USD (000)	3,334,012	3,559,913	3,721,216	3,062,179	3,163,776	4,078,889	3,887,494
Loss and ALAE* Reserves Development USD (000)	-19,177	-107,134	...	-119,434	-195,154	-587,629	-166,708
Development to:							
Original Reserves (%)	...	...	...	-3.8	-5.8	-12.6	-4.1
Prior Year End Reserves(%)	-0.5	-3.2	...	...	...	...	...
Prior Year End Surplus (%)	-0.1	-0.7	...	-0.8	-1.4	-5.2	-1.3

Source: BestLink® - Best's Financial Suite

* Interim LAE reserves balances displayed include Adjusting and Other Unpaid as well as Defense and Cost Containment Unpaid. Year End LAE balances include Defense and Cost Containment Unpaid only.

Loss and Loss Adjustment Expense Reserves and Development - Accident Year	Year End - December 31				
	2021	2020	2019	2018	2017
Original Loss and ALAE Reserves USD (000)	2,182,169	1,796,148	1,497,630	2,619,452	2,656,533
Loss and ALAE Reserves Developed thru Latest Year End USD (000)	2,182,169	1,723,487	1,490,197	2,160,055	2,604,129
Development to Original Reserves (%)	...	-4.0	-0.5	-17.5	-2.0
Accident Year Loss and LAE Ratio (%)	58.5	69.3	65.6	97.4	108.3
Accident Year Combined Ratio (%)	84.2	94.4	93.0	126.1	138.2

Source: BestLink® - Best's Financial Suite

Operating Performance

Historically, FM Global has produced strong operating returns, driven by solid underwriting earnings along with sound and steady investment income. The group's underwriting earnings have resulted from the group's persistent loss control procedures, low expense ratio and (particularly in prior years) favorable market conditions. As market conditions have hardened, the group has seized the opportunity to increase rates and improve its overall risk selection. Aside from the group's higher than average catastrophe loss years in 2017 and 2018, the group has generated significant underwriting profits. Above average results are primarily due to its strong market position, highly protected risk expertise and strong risk management capabilities.

Prior to 2017, results were reflective of more normalized loss years, with 2014, and subsequently 2019, being relatively benign catastrophe years. Underwriting results included approximately 44 and 50 points of catastrophe losses for 2018 and 2017, respectively. Annual cat losses have ranged from 8 to 52 points over the past 10 years with an average of about 25 points. As a mutual, the FM Global is not a profit maximizer in charging its premium rates. That said, management is conservative in its underwriting and ensures adequate rates with the potential for returning excess profits down the road if they materialize.

While the group's income benefits from its consistent generation of investment income, investment yields slightly lag the average of its peer group. This is primarily the result of FM Global's above-average investment allocation to common equities, which have a lower dividend yield than the average yield on the bonds that comprise a larger percentage of the portfolios of its industry peers. While FM Global's elevated investment leverage adds to earnings volatility, total return on invested assets compares favorably to the five and ten year composite averages. Further, the group's total returns on revenue and surplus, which include capital gains and losses, strongly and consistently outperform its peer composite.

Underwriting Results:

Operating Performance (Continued...)

FM Global has typically produced strong non-CAT underwriting results, reflecting strong risk management capabilities, adequate rates and careful management of terms and conditions. Solid underwriting results in recent years have led the company to provide membership credits, which allow its policyholders to benefit from these favorable results and which encourage the long-term and stable relationship between the group and its customers. Management views the credits as return of excess profits and has paid approximately \$4 billion since 2001. However, after five straight years through 2018, management curtailed the credits in response to the recently absorbed CAT losses in 2017 and 2018. In 2021, the group reported net underwriting income of \$872.7 million, which was the highest of the most recent five year period. For 2022, a \$600 million membership credit was applied to renewal premium.

Underwriting results are underpinned by the group's very detailed knowledge of each risk. FM Global does not use actuarial methods to set prices but instead relies on its staff of engineers to establish appropriate rates based on exposure and risk mitigation initiatives of individual insureds. This expertise has contributed to ultimate catastrophe losses approximating one-half of modeled losses in recent CATs. The group employs more engineers (nearly 2,000) than each of its competitors by a wide margin. Additionally, the group has a state-of-the-art industrial testing facility that tests both the causes of loss (largely fire focused) and mitigation / minimization of losses.

The group's underwriting performance remains exposed to future acts of terrorism. Under the TRIPRA extension, FM Global's retention (deductible) is \$873 million for 2021, plus 20% of all certified losses in excess of this deductible. Most of FM Global's policyholders have accepted the terrorism coverage offered by the group under TRIPRA. However, the vast majority of these exposures are represented by horizontal or campus-like risks that are generally not exposed to a total loss. The group does purchase additional terrorism reinsurance outside of TRIPRA. The company has conceptual contingency plans to manage its risks in the event TRIPRA would ever be permitted to expire.

Investment Results:

Investment income is the primary source of the group's pretax earnings over the most recent five year period. FM Global has consistently generated \$260 - 379 million of investment income on an annual basis. In 2021, the group reported net investment income of \$356.9 million. Realized capital gains have been robust and are the primary source of the group's net income. Over the five year period, the group reports \$3.3 billion of realized gains, with \$955 million attributable to 2021. Unrealized gains and losses have fluctuated alongside equity market conditions, but have typically been favorable.

Operating and Financial Performance Ratios (%) - Company	9-Months		Year End - December 31					Weighted Average
	2022	2021	2021	2020	2019	2018	2017	
Calendar Year Loss and LAE Ratio	46.0	47.9	55.5	67.2	54.1	109.9	108.4	76.5
Expense and Policyholder Dividend Ratio	24.9	25.3	25.8	25.0	27.4	28.7	29.9	27.1
Combined Ratio	70.9	73.2	81.3	92.2	81.5	138.6	138.3	103.6
Reserve Development Ratio Impact	-0.5	-2.9	-3.0	-4.2	-12.1	-2.1	-2.9	-4.8
Net Investment Yield	1.1	1.4	1.5	1.2	2.0	1.9	1.8	1.7
Pre-Tax Operating Return on Net Earned Premiums	35.4	32.0	24.5	10.8	26.5	-29.9	-28.3	3.2
Net Income Return on Policyholders' Surplus	14.5	8.8	9.5	7.5	11.8	-0.9	-3.0	5.4
Total Return on Policyholders' Surplus	-6.4	16.0	14.5	12.1	20.1	-11.0	10.4	9.8

Source: BestLink® - Best's Financial Suite

Operating Performance (Continued...)

Operating and Financial Performance Ratios (%) - Composite	9-Months		Year End - December 31					Weighted Average
	2022	2021	2021	2020	2019	2018	2017	
Calendar Year Loss and LAE Ratio	57.7	58.5	58.0	66.8	59.2	72.0	78.5	66.0
Expense and Policyholder Dividend Ratio	29.7	30.7	36.0	36.4	40.3	40.7	38.3	38.2
Combined Ratio	87.4	89.3	93.9	103.2	99.5	112.7	116.8	104.1
Reserve Development Ratio Impact	-1.5	-3.2	-4.1	-1.3	-3.8	-5.7	-5.5	-4.0
Net Investment Yield	1.5	1.6	1.8	1.7	2.4	2.3	2.1	2.1
Pre-Tax Operating Return on Net Earned Premiums	15.0	13.2	10.2	1.5	6.6	-5.5	-7.9	1.8
Net Income Return on Policyholders' Surplus	10.1	6.7	6.7	3.6	6.6	0.9	...	3.7
Total Return on Policyholders' Surplus	-3.6	11.4	10.4	6.1	11.8	-5.8	7.3	6.2

Source: BestLink® - Best's Financial Suite

Industry Composite: Commercial Property Composite - BestLink® - Best's Financial Suite

Business Profile

FM Global is one of the largest underwriters of highly protected risk (HPR) within the commercial property market and is widely recognized throughout the industry for its extensive loss control, risk management and engineering capabilities. FM Global is afforded a distinct competitive advantage over most insurers by virtue of its professional property engineering expertise, inspection and loss prevention services, training and research. These bundled professional services assist FM Global's policyholders in the identification, assessment and management of property risks. In addition to providing global insurance products and value-added services, FM Global is also known for its captive-like orientation and its focus on long-term business partnerships which, in some cases, span more than 100 years. Many of the group's largest policyholder organizations are also members of FM Global's board of directors, advisory boards and risk management executive councils, which reinforces its understanding of the needs of its clients. The majority of FM Global's policyholders maintain worldwide operating facilities and are typically large industrial companies operating in varied manufacturing and servicing industries. Business is produced on a direct basis and through brokers.

Innovation is assessed positively by AM Best as the company operates differently than other insurers in that it relies on engineers versus actuaries. Its credo is stated in its ORSA document that 'the majority of loss is preventable, and that any loss can be minimized.' The philosophy is tightly woven into its culture and business activities. The mindset is evident in discussions with management; in the content of Annual Report and ORSA reports it; in discussions of its products, pricing, and policies; and in its results. The enterprise has a significant research center from where much of its testing emanates (it recently built a second one in Singapore for AP relationships) and even includes a group in its organizations called FM Approvals to ensure that FM Global loss prevention conditions are followed as precedents to its policy coverage and valid claims, and to approve the materials/methods and their deployment by insureds.

FM Global's insurance coverage includes all-risk policies and policies providing fire and extended coverage, boiler and machinery, difference in conditions, ocean cargo or any combination of these lines of coverage. Business interruption insurance is also offered as a supplement to these lines of coverage. With the implementation of the U.S. government reinsurance of terrorism exposures in November 2002, FM Global was required to offer terrorism coverage to all its insureds with full limits. If TRIPRA was ever permitted to lapse, insureds will be subject to a significantly lower terrorism coverage sub-limit. Management states FM Global would be reinsured to its \$450 million net retention in a worst case event.

Insurance activities are conducted in the U.S., Canada, and Asia-Pacific through Factory Mutual Insurance Company (FMIC), the lead U.S. carrier and ultimate parent. Additional insurance activities are conducted in the U.S. and Canada through two U.S. operating companies and two Canadian branch offices. FMIC is the lead carrier in the FM Global Group. Affiliated FM specializes in underwriting small and mid-sized highly protected risks as well as better quality non-HPR accounts of all sizes. In addition, Affiliated FM writes associated coverage, including boiler and machinery and ocean cargo. Appalachian writes coverage on a surplus lines basis.

Through its U.K. based subsidiary, FM Insurance Company Limited (FMI), the group covers the U.K. exposures of its core US companies. US risks with international exposure are accepted by U.S. underwriter and then allocated to US and UK companies proportionally based on its geographical exposure.

FMI had previously been used to sell policies across the EU from one EU country, using "passporting rights". Insurers and other financial service firms no longer retain those rights since the British exit from the European Union (BREXIT). FM Global established FM Insurance Europe SA (FMIE SA) in Luxembourg in 2016 as its European Economic Area (EEA) hub since it is a multinational business-

Business Profile (Continued...)

friendly financial center with regulatory expertise that permits EU pass-porting. FMIE SA has seven European branches. It began writing business in 2018.

FMI and FMIE SA continue to comprise approximately 15-20% of the group's gross premiums.

Risk Engineering Insurance Company Limited {REICL} is incorporated in Bermuda and its ultimate parent is Factory Mutual Insurance Company. REICL is registered in Bermuda as a Class 3A insurer under the Bermuda Insurance Act 1978, as amended {the "Insurance Act"}. REICL provides facultative reinsurance to its parent and affiliates.

In the U.S., members of the FM Global Group operate under an intercompany pooling arrangement, effective January 1, 1999. Under this agreement, each company agrees to pool net premiums earned, net loss and loss adjustment expenses incurred, and other underwriting expenses incurred. Effective January 1, 2005, the participation percentages are FMIC, 86%; Affiliated FM, 12%; and Appalachian, 2%.

Premium Composition and Growth	9-Months		Year End - December 31					5 Year CAGR
	2022	2021	2021	2020	2019	2018	2017	
Direct Premiums Written USD (000)	4,289,150	4,149,620	5,602,979	5,134,211	4,490,385	3,928,922	3,550,622	...
% Change	3.4	10.5	9.1	14.3	14.3	10.7	1.2	9.8
Reinsurance Premiums Assumed USD (000)*	1,604,769	1,537,777	1,362,515	1,241,173	1,038,813	1,002,058	955,569	...
% Change	4.4	8.9	9.8	19.5	3.7	4.9	8.3	9.1
Reinsurance Premiums Ceded USD (000)*	1,923,913	1,750,704	1,690,548	1,677,268	1,521,582	1,302,396	1,082,896	...
% Change	9.9	2.8	0.8	10.2	16.8	20.3	-2.1	8.9
Net Premiums Written USD (000)	3,970,005	3,936,692	5,274,947	4,698,115	4,007,616	3,628,584	3,423,295	...
% Change	0.8	13.6	12.3	17.2	10.4	6.0	4.2	9.9

Source: BestLink® - Best's Financial Suite

*Quarterly premiums include affiliated reinsurance premiums that are eliminated in annual assumed and ceded values.

2021 By Line Business	Direct Premiums Written		Reinsurance Premiums Assumed		Reinsurance Premiums Ceded		Net Premiums Written		Business Retention
	USD (000)	%	USD (000)	%	USD (000)	%	USD (000)	%	%
Allied Lines	2,139,753	38.2	309,468	22.7	683,895	40.5	1,765,326	33.5	72.1
Fire	1,212,287	21.6	172,831	12.7	380,692	22.5	1,004,426	19.0	72.5
Boiler&Mach	827,119	14.8	598,422	43.9	260,841	15.4	1,164,700	22.1	81.7
Inland Marine	809,406	14.4	167,646	12.3	164,726	9.7	812,326	15.4	83.1
Earthquake	578,168	10.3	105,471	7.7	190,151	11.2	493,488	9.4	72.2
Top 5	5,566,733	99.4	1,353,838	99.4	1,680,304	99.4	5,240,266	99.3	75.7
All Other	36,246	0.6	8,677	0.6	10,243	0.6	34,680	0.7	77.2
Total	5,602,979	100.0	1,362,515	100.0	1,690,548	100.0	5,274,947	100.0	79.7

Source: BestLink® - Best's Financial Suite

Business Profile (Continued...)

Year End - December 31

Geographic Breakdown by Direct Premiums Written USD (000)	2021	2020	2019	2018	2017
Canada	631,841	579,166	488,089	419,045	391,427
California	591,619	597,565	533,577	484,536	457,093
Aggregate Alien	411,656	378,823	308,533	284,447	256,357
Texas	382,107	352,983	308,669	273,348	252,583
New York	279,678	256,453	213,083	185,362	170,346
Top 5 States	2,296,902	2,164,991	1,851,951	1,646,737	1,527,807
All Other	3,306,078	2,969,220	2,638,435	2,282,185	2,022,815
Total	5,602,979	5,134,211	4,490,385	3,928,922	3,550,622
Geographic Concentration Index	0.05	...	...	...	...

Source: BestLink® - Best's Financial Suite

Enterprise Risk Management

FM Global's board, working in conjunction with senior management, has established risk tolerances that limit the group's exposure to loss from a variety of factors. The senior officer responsible for enterprise risk management (ERM) reports annually to the board on the group's risk tolerance and risk management framework. Risks have been identified in four broad categories: exposure; investment; regulatory/reputation; and operational. Meetings are held regularly to review risk metrics and risk management activities. Emerging risks are discussed and monitored through regular meetings of senior management, local risk management committees at FM entities around the world, and regular meetings with policyholders to discuss product and service offerings.

An important part of the group's ERM strategy is embedded in multiple levels of internal controls designed to ensure adherence and compliance in implementing the group's business model. These controls are integral to FM Global's day-to-day activities, and are monitored and managed by a cross-functional, corporate management team. Processes and procedures are established and audited regularly in all areas of operation based on a variety of factors, including geography, specialty operations, discipline areas and staff functions. In addition to traditional top-down reviews, regular operations reviews have been instituted to provide an assessment of activities. Additionally, the group's internal audit department evaluates and tests the system of internal controls.

Business continuity plans have been developed for all major sites, and incident command team leaders have been appointed for each of these sites. As part of the group recovery/action planning efforts, the group has documented the response to three broad scenarios: 1) lack of access to the IT infrastructure; 2) lack of access to the building; and 3) lack of employees to staff a facility, and periodically tests the planned responses to ensure continuity of availability and responsiveness to customer needs.

Catastrophe Exposure & Management: Aggregate per-risk and catastrophe reinsurance programs are utilized by FM Global to limit its exposure to severe losses, including catastrophes. Due to the complexity of its exposures, FM Global focuses extensively on risk management and maintains gross and net catastrophe exposures that are moderate, as measured by the group's estimated maximum foreseeable loss (MFL) analysis.

The group's consistent net retention of approximately of roughly 75% reflects FM Global's ability to retain a higher level of risk than its peers given the group's strong capital position and low underwriting leverage. Although the group has a block of reinsurance recoverables from unrated captive reinsurers, such recoveries are backed by letters of credit or other forms of collateral. Further, its remaining reinsurance recoveries are from highly rated reinsurers, and total recoverables represent a modest percentage of surplus.

Reinsurance Summary

FM Global is considered to be among the market leaders in terms of global property insurance. Due to the size and complexity of its risks, FM Global utilizes facultative and excess-of-loss treaty reinsurance to reduce its exposure to significant loss events. In examining its exposure to catastrophes, all of FM Global's accounts are individually evaluated (on a location basis) based on maximum foreseeable loss (MFL) estimates. Further, management has addressed its risk appetites and client needs with a manageable cyber treaty (backed up by excess cessions) and lower attachments for what it calls 'Figure 5' risks for high challenge occupancies that include molten metal, wood, chemicals, and power generation.

Enterprise Risk Management (Continued...)

The group utilizes facultative reinsurance when a policyholder's coverage requirements are outside FM Global's underwriting criteria. In addition to facultative reinsurance, the group maintains excess-of-loss protection of \$1,100 million excess of its \$300 million per-risk retention and \$1,050 million excess of its \$450 million per-catastrophe retention). As of the 2022 renewal and in response to hardening reinsurance market conditions, the group is a \$58.8 million co-participant on the first excess of loss layer per risk and \$45.5 million co-participant on the first excess of loss layer per catastrophe, respectively. The company maintains reduced retention in its second event at \$350 million. The group was able to renew its reinsurance program in 2022 with no major changes.

Environmental, Social & Governance

AM Best views the main ESG risks to FM Global to be environmental and governance. As a global writer of commercial property policies, FM Global's risks may be exposed to the impacts of changing climate trends, namely increased frequency and severity of natural catastrophe losses. The group utilizes reinsurance in order to protect its balance sheet. Catastrophe modeling and accumulations are managed to ensure that the group's exposure to natural catastrophes is maintained within its risk appetite. Governance includes all decision-making matters such as policy setting, underwriting, reserving, risk mitigation, claims management, setting corporate strategy and hiring practices. Further, the appropriateness of the established risk appetite & tolerance are considered under governance. At this point, governance at FM Global has been appropriate.



Financial Statements

	9-Months		Year End - December 31			
	2022		2021		2020	
Balance Sheet	USD (000)	%	USD (000)	%	USD (000)	%
Cash and Short Term Investments	1,609,918	6.2	1,218,667	4.4	1,064,791	4.4
Bonds	7,594,994	29.3	7,891,054	28.5	7,819,179	32.2
Preferred and Common Stock	10,265,844	39.6	12,209,415	44.1	10,077,071	41.5
Other Invested Assets	3,868,031	14.9	3,951,999	14.3	3,395,367	14.0
Total Cash and Invested Assets	23,338,787	90.0	25,271,135	91.3	22,356,408	92.1
Premium Balances	1,261,190	4.9	1,276,549	4.6	1,184,695	4.9
Net Deferred Tax Asset	83,103	0.3	10	...	57	...
Other Assets	1,251,747	4.8	1,146,454	4.1	731,806	3.0
Total Assets	25,934,825	100.0	27,694,148	100.0	24,272,966	100.0
Loss and Loss Adjustment Expense Reserves:						
Net Reported Loss Reserves*	2,267,090	8.7	2,849,016	10.3	2,265,977	9.3
Net IBNR Loss Reserves*	1,066,922	4.1	710,757	2.6	787,382	3.2
Net LAE Reserves	...	...	266,704	1.0	261,408	1.1
Total Net Loss and LAE Reserves	3,334,012	12.9	3,826,477	13.8	3,314,767	13.7
Net Unearned Premiums	2,752,436	10.6	2,735,752	9.9	2,477,007	10.2
Other Liabilities	3,212,320	12.4	3,273,624	11.8	3,122,492	12.9
Total Liabilities	9,298,768	35.9	9,835,853	35.5	8,914,265	36.7
Unassigned Surplus	16,634,807	64.1	17,857,045	64.5	15,357,451	63.3
Other Surplus	1,250	...	1,250	...	1,250	...
Total Policyholders' Surplus	16,636,057	64.1	17,858,295	64.5	15,358,701	63.3
Total Liabilities and Surplus	25,934,825	100.0	27,694,148	100.0	24,272,966	100.0

Source: BestLink® - Best's Financial Suite

* Interim reserves balances include LAE.

Income Statement USD (000)	9-Months		Year End - December 31	
	2022	2021	2021	2020
Net Premiums Earned	3,953,321	3,700,132	5,016,202	4,290,708
Net Losses and LAE Incurred:				
Current Accident Year	1,836,023	1,879,522	2,933,693	3,063,239
Prior Accident Years	-19,177	-107,134	-148,676	-180,285
Underwriting Expenses Incurred	988,595	994,518	1,357,882	1,176,245
Dividends to Policyholders	443	422	564	550
Net Underwriting Income	1,147,437	932,805	872,738	230,960
Net Investment Income	207,444	244,949	356,928	260,867
Other Income (Expense)	43,479	5,239	-1,848	-26,482
Pre-Tax Operating Income	1,398,360	1,182,993	1,227,818	465,345
Income Taxes Incurred	-95,379	600,255	601,183	65,580
Net Operating Income	1,493,740	582,738	626,635	399,765
Net Realized Capital Gains (Losses)	387,952	509,722	955,252	687,413
Net Income	1,881,691	1,092,459	1,581,887	1,087,179

Source: BestLink® - Best's Financial Suite



Statement of Operating Cash Flows USD (000)	9-Months		Year End - December 31	
	2022	2021	2021	2020
Net Premiums Collected	4,109,566	4,162,837	5,268,583	4,534,046
Net Losses Paid	2,053,624	1,365,566	2,265,072	2,978,823
Expenses Paid	1,222,190	1,169,925	1,396,530	1,196,777
Dividends to Policyholders	422	423	560	538
Net Underwriting Cash Flow	833,330	1,626,923	1,606,420	357,909
Net Investment Income	246,946	278,202	334,578	288,891
Other Income (Expense)	40,262	10,280	6,169	-26,482
Income Taxes Paid (Recovered)	327,779	711,874	856,184	145,461
Net Operating Cash Flow	792,759	1,203,531	1,090,982	474,857

Source: BestLink® - Best's Financial Suite

Related Methodology and Criteria

[Best's Credit Rating Methodology, 11/13/2020](#)

[Catastrophe Analysis in A.M. Best Ratings, 10/13/2017](#)

[Available Capital & Holding Company Analysis, 10/13/2017](#)

[Scoring and Assessing Innovation, 02/27/2023](#)

[The Treatment of Terrorism Risk in the Rating Evaluation, 05/26/2022](#)

[Understanding BCAR for U.S. Property/Casualty Insurers, 05/26/2022](#)

A Best's Financial Strength Rating opinion addresses the relative ability of an insurer to meet its ongoing insurance obligations. The ratings are not assigned to specific insurance policies or contracts and do not address any other risk, including, but not limited to, an insurer's claims-payment policies or procedures; the ability of the insurer to dispute or deny claims payment on grounds of misrepresentation or fraud; or any specific liability contractually borne by the policy or contract holder. A Financial Strength Rating is not a recommendation to purchase, hold or terminate any insurance policy, contract or any other financial obligation issued by an insurer, nor does it address the suitability of any particular policy or contract for a specific purpose or purchaser.

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