



BEST'S CREDIT RATING DISCLOSURE FORM

AMB #: 003611 - Northern Mutual Insurance Company

1. The Symbol, Number, or Score in the Rating Scale used to Denote the Credit Rating Categories and Notches as required by Paragraph (a)(1)(ii)(A) of Rule 17g-7

Northern Mutual Insurance Company

AM Best #: 003611

NAIC #: 30376

FEIN #: 38-0539800

Financial Strength Rating View Definition	
Rating:	A- (Excellent)
Financial Size Category:	VI (USD 25 Million to Less than 50 Million)
Outlook:	Stable
Action:	Affirmed
Effective Date:	November 16, 2023
Initial Rating Date:	June 30, 1923

Long-Term Issuer Credit Rating View Definition	
Long-Term:	a- (Excellent)
Outlook:	Stable
Action:	Affirmed
Effective Date:	November 16, 2023
Initial Rating Date:	March 6, 2008

(i) Denotes Indicative Rating

u Denotes Under Review Rating

pca Best's Preliminary Credit Assessment is an independent opinion on the relative general credit strengths and weaknesses of an issuer, obligor, security, or a proposed transaction or financing structure primarily based on business plans, term sheets, and AM Best's expectations relative to the execution of such business plans. AM Best does not define a PCA as a Credit Rating; however, the assessment is expressed using the existing Best's Credit Rating scales.

Best's Credit Rating Analyst	
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2. The Version of the Procedure or Methodology used to Determine the Credit Rating as required by Paragraph (a)(1)(ii)(B) of Rule 17g-7



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Rating Methodology and Criteria Report:	Version
The following Methodologies and Criteria Procedures were used at the time of and the basis for the proposed rating	
Best's Credit Rating Methodology	11/13/2020
Catastrophe Analysis in A.M. Best Ratings	03/10/2023
Available Capital & Holding Company Analysis	10/13/2017
Scoring and Assessing Innovation	02/27/2023
Understanding BCAR for U.S. Property/Casualty Insurers	05/25/2023

3. The Main Assumptions and Principles used to Construct the Procedures and Methodology used to Determine the Credit Rating as required by Paragraph (a)(1)(ii)(C) of Rule 17g-7

Assumptions

Based on historical experience and AM Best's transition studies, ratings typically move no more than one or two notches when Rating Actions occur. However, certain factors could cause larger scale movement in the ratings. AM Best identifies the following primary factors as having the potential to significantly affect ratings:

- Data accuracy and reliability
- Interest rates
- Investment impairments
- Liquidity
- Equity markets
- Catastrophe model risk
- Reinsurance market capacity and credit risk
- Mortality risk
- Morbidity risk
- Holding company/affiliates
- Country risk
- Regulatory risk

Elements of Country Risk

AM Best defines country risk as the risk that country-specific factors could adversely affect an insurer's ability to meet its financial obligations. Country risk is evaluated and incorporated into all of AM Best's credit ratings. As part of evaluating country risk, AM Best identifies the various risks within a country that may directly or indirectly affect an insurance company.

AM Best separates these risks into three main categories: economic risk, political risk and financial system risk. Given AM Best's particular focus on the insurance industry, financial system risk is further divided into two sections: insurance risk and non-insurance financial system risk.

Economic risk is the likelihood that fundamental weaknesses in a country's economy will cause adverse developments for an insurer. AM Best's determination of economic risk evaluates the state of the domestic economy, government finances, and international transactions, as well as prospects for growth and stability.

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Political risk is the likelihood that governmental or bureaucratic inefficiencies, societal tensions, an inadequate legal system or international tensions will cause adverse developments for an insurer. Political risk comprises the stability of a government and society, the effectiveness of international diplomatic relationships, the reliability and integrity of the legal system and business infrastructure, the efficiency of the government bureaucracy, and the appropriateness and effectiveness of the government's economic policies.

Financial system risk (non-insurance) is the risk that financial volatility may erupt due to inadequate reporting standards, weak banking systems or asset markets, or poor regulatory structure. Non-insurance financial system risk considers a country's banking system, accounting standards, financial market development, and government finances, and assesses how vulnerable the financial system is to external or internal volatility. Basel II & III, World Bank Insolvency Principles and international accounting standards are referenced in the analysis, as are the performances of banks, equity indices and fixed-income securities.

Insurance risk is the risk that the insurance industry's levels of development and public awareness, transparency and effectiveness of regulation, reporting standards, and regulatory sophistication will contribute to a volatile financial system and compromise an insurer's ability to pay claims. Insurance risk, which AM Best considers as a distinct subsection of financial system risk, is addressed separately because of the importance of, and AM Best's specific focus on, the industry. The determination is based heavily on the Insurance Core Principles (ICP) of the International Association of Insurance Supervisors (IAIS). AM Best employs a sizable subset of the 28 ICPs by organizing them into three categories: 1) government commitment to an open and well-regulated insurance industry; 2) adequacy of supervisory authority and its supporting infrastructure; and 3) insurer accountability.

Country Risk Tiers

The assignment of CRTs to score ranges is based on AM Best's assertion that the risk in countries can be categorized loosely to provide a basis of comparison, provided that country-by-country differences are acknowledged. Therefore, CRTs can be classified, in a typical scenario, by the following:

- CRT-1: A country receiving a CRT-1 assignment is characterized by a predictable and transparent political environment, legal system and business infrastructure, a sophisticated financial system regulation with deep capital markets, and a mature insurance industry framework.
- CRT-2: A country receiving a CRT-2 assignment is characterized by a predictable and transparent political environment, legal system and business infrastructure, sufficient financial system regulation, and a mature insurance industry framework.
- CRT-3: A country receiving a CRT-3 assignment is characterized by a developing political environment, legal system, business infrastructure, capital market, and insurance regulatory structure.
- CRT-4: A country receiving a CRT-4 assignment is characterized by a relatively unpredictable and nontransparent political, legal and business environment with an underdeveloped capital market, and a partially to fully inadequate insurance regulatory structure.
- CRT-5: A country receiving a CRT-5 assignment is characterized by an unpredictable and opaque political, legal and business environment with weak rule of law, lower human development and social instability, a limited, illiquid or nonexistent capital market, and a nascent insurance industry.

In short, as country risk increases (as measured by a higher Country Risk Tier), the distribution of ratings generally migrates down the rating scale. This same relationship effectively applies to any significant category of risk an insurer faces, i.e., higher risk exposure places pressures upon financial stability.

4. The Potential Limitations of the Credit Rating as required by Paragraph (a)(1)(ii)(D) of Rule 17g-7

Please refer to the **Guide to Best's Credit Ratings** for the following:

- [1\(a\). Usage of Ratings and Limitations](#)
- [8. Best's Rating Scales: Categories and Symbols](#)



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5. Information on the Uncertainty of the Credit Rating as required by Paragraph (a)(1)(ii)(E) of Rule 17g-7

Please refer to the [Guide to Best's Credit Ratings](#) for the following:

- [2\(b\)ii. Quality of Information](#)

6. Use of Third Party Due Diligence in Taking the Credit Rating Action as required by Paragraph (a)(1)(ii)(F) of Rule 17g-7

AM Best Company did not use due diligence services of a third party in taking the Rating Action. This disclosure only applies to Rating Actions associated with asset-backed securities as defined by section 3(a)(79) of the Securities Exchange Act of 1934, as amended.

7. How Servicer or Remittance Reports were used, and with what Frequency, to Conduct Surveillance of the Credit Rating as required by Paragraph (a)(1)(ii)(G) of Rule 17g-7

How Servicer / Remittance reports were used:

Not Applicable

Frequency of surveillance:

Not Applicable

8. A Description of the Types of Data about the Obligor, Issuer, Security, or Money Market Instrument that were Relied Upon for the Purpose of Determining the Credit Rating as required by Paragraph (a)(1)(ii)(H)(i) of Rule 17g-7

Please refer to the [Guide to Best's Credit Ratings](#) for the following:

- [2\(b\). Compile Information](#)
- [2\(b\)i. Material Sources of Information](#)

9. An Overall Assessment of the Quality of Information Available and Considered in Determining the Credit Rating as required by Paragraph (a)(1)(ii)(I) of Rule 17g-7

Please refer to the [Guide to Best's Credit Ratings](#) for the following:

- [2\(b\)i. Material Sources of Information](#)
- [2\(b\)ii. Quality of Information](#)



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10. Information Relating to Conflicts of Interest as required by Paragraph (a)(1)(ii)(J) of Rule 17g-7

1) AM Best Company has been paid to determine the Credit Rating by the obligor being rated or the issue, underwriter, depositor, or sponsor of the security or money market instrument being rated.

Rating Opinion Characteristics	
Solicited	Participating

2) AM Best Company was also paid for services by the company other than determining Credit Ratings during the most recently ended fiscal year.

Please refer to the **Guide to Best's Credit Ratings** for the following:

- [1\(d\). Not an Investment Advisor or Consultant](#)

11. An Explanation or Measure of the Potential Volatility of the Credit Rating as required by Paragraph (a)(1)(ii)(K) of Rule 17g-7

Factors and Magnitude - Change Rating:

Negative rating pressure could ensue if the company's key operating performance metrics materially deteriorate and no longer support the adequate assessment. Potential rating impact: Minor

Negative rating pressure could ensue if policyholders' surplus were to deteriorate, causing the company's risk-adjusted capitalization to materially weaken. Potential rating impact: Minor

While unlikely in the near to intermediate term, positive rating action could ensue should the company expand its spread of risk and prove effective management of its exposures through favorable operating results that are sustained over a period of time. Potential rating impact: Minor

NOTE: Only a rating committee can make a rating decision and the above referenced factors would be taken into consideration, along with all available relevant information in determining a Rating Action. However, the magnitude of a potential change in the rating that could reasonably occur as a result of the impact of the factors listed above are characterized by the following summary chart:

Rating Change Characterization	Number of ICR Notches (Up or Down)
Minor	0 - 1
Moderate	2 - 3
Severe	> 3

12. The Information on the Content of the Information of the Credit Rating as required by Paragraph (a)(1)(ii)(L) of Rule 17g-7

(1) Rating History and Performance

- [Financial Strength / Issuer Credit Rating History](#)



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(2) Expected Probability of Default and Expected Loss

The Commission states that it does not expect NRSROs to alter the meanings of their Credit Ratings or rating procedures and methodologies to conform to this disclosure requirement. Rather, the Commission expects NRSROs to provide "information" to the extent it is consistent with their procedures and methodologies for determining Credit Ratings, on the expected probability of default and expected loss in the event of default. According to the Commission, this information could consist of, for example, historical default and loss statistics, respectively, for the class or subclass of the Credit Rating.

AM Best's Credit Ratings generally are intended to indicate the relative degree of credit risk of an obligor or debt instrument rather than reflect a measure of a specific default probability or loss expectation. AM Best is providing the historical default statistics or derivatives of such default statistics to comply with Rule 17g-7(a)(ii)(L)(2). AM Best does not produce any loss statistics related to any classes of Credit Ratings so it has no information about expected loss given default. Furthermore, expected losses given default is not consistent with AM Best's procedures and methodologies for determining Credit Ratings.

INSURANCE COMPANY DEFAULT RATES (FSR)

FSR	1 - Year	3 - Year	10 - Year
A++	0.00%	0.00%	0.00%
A+	0.04%	0.17%	0.51%
A	0.04%	0.27%	1.80%
A-	0.15%	0.73%	2.80%
B++	0.34%	1.45%	4.29%
B+	0.75%	2.16%	6.31%
B	1.51%	4.39%	8.81%
B-	3.45%	6.90%	12.07%
C++	3.97%	6.96%	11.20%
C+	3.51%	7.28%	11.64%
C	3.37%	7.37%	15.50%
C-	11.94%	13.95%	17.39%
D	17.35%	22.16%	29.41%

Note: Data from 1992 to 2018

1. Impairments as a Proxy for Defaults. Upon the public placement of a company, via public court order or other international equivalent, into conservation, rehabilitation and/or insolvent liquidation it is designated by AM Best as a Financially Impaired Company (FIC). Supervisory actions undertaken by Insurance Department regulators without court order are not considered impairments for purposes of compiling Securities and Exchange Commission (SEC) Exhibit 1 statistics unless clear direction is given by the regulator to delay or limit policy or contract payments.

There are a number of regulatory oversight actions that may be taken with respect to troubled insurers in which court orders are not sought, such as required company action plans, various forms and levels of supervision, and licensure actions. Companies may be subject to these insurance department orders and actions on multiple occasions, particularly in certain jurisdictions, and while these regulatory actions suggest concern and impose constraints, they are not necessarily indicative of an insurer's inability to meet its ongoing policy and contract obligations.

Additionally, companies that enter voluntary dissolution and are not under financial duress at that time are not counted as financially impaired.

2. Construction of Default Rates of Insurance Carriers (FSR). This table was constructed by directly observing the default rates of insurance operating companies rated on the traditional Financial Strength Rating (FSR) scale.



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3. Rating a Measure of Relative Credit Risk. AM Best's Credit Ratings generally are intended to indicate the relative degree of credit risk of an obligor or debt instrument rather than reflect a measure of specific default probability.

4. Data Consistent With Submission to the Securities and Exchange Commission. The data used to calculate default rates in this table is consistent with the data used to calculate the 1-year, 3-year and 10-year default rates for insurers as required by the SEC in Exhibit 1 of Form NRSRO. Unlike the single cohort method of analysis used in the submission to the Commission, however, the calculations in this table reflect the use of the average cohort approach in order to capture the effect of the various economic cycles experienced by insurance carriers since 1992 when the current 13-point FSR scale (A++ to D) was adopted by AM Best.

5. Data Does Not Necessarily Reflect Default Expectations. The data in this table does not necessarily reflect our default rate expectations. For example, the fact that we show no default rate for the 1-year "A++" category does not mean that we expect no defaults for this rating. It only means that we have not yet observed any historical defaults over a 1-year period for companies rated "A++".

6. Data Changes Periodically. AM Best may periodically change the data in the table if warranted. The reasons for the revisions may be as follows: If AM Best 1) adds more rating cohorts which significantly changes the calculated default rates, 2) changes its criteria for recognizing insurance company defaults, or 3) incorporates new defaults or adjusts existing default data.

INSURANCE COMPANY DEFAULT RATES (ICR)

ICRs	1 - Year	3 - Year	10 - Year
aaa	0.00%	0.00%	0.00%
aa+	0.00%	0.00%	0.00%
aa	0.04%	0.17%	0.51%
aa-	0.04%	0.17%	0.51%
a+	0.04%	0.27%	1.80%
a	0.04%	0.27%	1.80%
a-	0.15%	0.73%	2.80%
bbb+	0.34%	1.45%	4.29%
bbb	0.34%	1.45%	4.29%
bbb-	0.75%	2.16%	6.31%
bb+	1.51%	4.39%	8.81%
bb	1.51%	4.39%	8.81%
bb-	3.45%	6.90%	12.07%
b+	3.97%	6.96%	11.20%
b	3.97%	6.96%	11.20%
b-	3.51%	7.28%	11.64%
ccc+	3.37%	7.37%	15.50%
ccc	3.37%	7.37%	15.50%
ccc-	11.94%	13.95%	17.39%
cc	11.94%	13.95%	17.39%
c	17.35%	22.16%	29.41%

Note: Default rates based on FSR to ICR Translation.

See Best's Credit Rating Methodology, *ICR/FSR Rating Translation Table* (Exhibit D.1)



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1. Impairments as a Proxy for Defaults. Upon the public placement of a company, via public court order or other international equivalent, into conservation, rehabilitation and/or insolvent liquidation it is designated by AM Best as a Financially Impaired Company (FIC). Supervisory actions undertaken by Insurance Department regulators without court order are not considered impairments for purposes of compiling Securities and Exchange Commission (SEC) Exhibit 1 statistics unless clear direction is given by the regulator to delay or limit policy or contract payments.

There are a number of regulatory oversight actions that may be taken with respect to troubled insurers in which court orders are not sought, such as required company action plans, various forms and levels of supervision, and licensure actions. Companies may be subject to these insurance department orders and actions on multiple occasions, particularly in certain jurisdictions, and while these regulatory actions suggest concern and impose constraints, they are not necessarily indicative of an insurer's inability to meet its ongoing policy and contract obligations.

Additionally, companies that enter voluntary dissolution and are not under financial duress at that time are not counted as financially impaired.

2. Construction of Default Rates of Insurance Carriers(ICR). This table was not constructed by directly observing the default rates of insurance operating companies rated on the 21-point Issuer Credit Rating (ICR) scale because default data associated with ICRs is sparse. It was constructed by converting each operating company Financial Strength Rating (FSR) to an equivalent ICR based on AM Best's FSR/ICR translation table.

3. Rating a Measure of Relative Credit Risk. AM Best's Credit Ratings generally are intended to indicate the relative degree of credit risk of an obligor or debt instrument rather than reflect a measure of specific default probability.

4. Data Does Not Necessarily Reflect Default Expectations. The data in this table does not necessarily reflect our default rate expectations. For example, the fact that we show no default rate for the 1-year "aaa" category does not mean that we expect no defaults for this rating. It only means that we have not yet observed any historical defaults over a 1-year period for companies with an equivalent "aaa" rating.

5. Data Changes Periodically. AM Best may periodically change the data in the table if warranted. The reasons for the revisions may be as follows: If AM Best 1) adds more rating cohorts which significantly changes the calculated default rates, 2) changes its criteria for recognizing insurance company defaults, or 3) incorporates new defaults or adjusts existing default data.

CORPORATE DEFAULT RATES

ICRs	1 - Year	3 - Year	10 - Year
aaa	0.00%	0.00%	0.00%
aa+	0.00%	0.00%	0.00%
aa	0.00%	0.00%	0.00%
aa-	0.00%	0.00%	0.00%
a+	0.02%	0.08%	0.26%
a	0.04%	0.17%	0.51%
a-	0.04%	0.17%	0.51%
bbb+	0.04%	0.27%	1.80%
bbb	0.04%	0.27%	1.80%
bbb-	0.15%	0.73%	2.80%
bb+	0.34%	1.45%	4.29%
bb	0.34%	1.45%	4.29%
bb-	0.75%	2.16%	6.31%



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ICRs	1 - Year	3 - Year	10 - Year
b+	1.13%	3.27%	7.56%
b	1.51%	4.39%	8.81%
b-	1.51%	4.39%	8.81%
ccc+	3.45%	6.90%	12.07%
ccc	3.71%	6.93%	11.64%
ccc-	3.97%	6.96%	11.20%
cc	3.97%	6.96%	11.20%
c	3.51%	7.28%	11.64%

Note: Default rates based on notching applied to insurance ICRs.

See Best's Credit Rating Methodology, *Typical Notching Difference Between Operating Company ICR and Holding Company ICR* (Part IV, Exhibit B.1)

1. Impairments as a Proxy for Defaults. Upon the public placement of a company, via public court order or other international equivalent, into conservation, rehabilitation and/or insolvent liquidation it is designated by AM Best as a Financially Impaired Company (FIC). Supervisory actions undertaken by Insurance Department regulators without court order are not considered impairments for purposes of compiling Securities and Exchange Commission (SEC) Exhibit 1 statistics unless clear direction is given by the regulator to delay or limit policy or contract payments.

There are a number of regulatory oversight actions that may be taken with respect to troubled insurers in which court orders are not sought, such as required company action plans, various forms and levels of supervision, and licensure actions. Companies may be subject to these insurance department orders and actions on multiple occasions, particularly in certain jurisdictions, and while these regulatory actions suggest concern and impose constraints, they are not necessarily indicative of an insurer's inability to meet its ongoing policy and contract obligations.

Additionally, companies that enter voluntary dissolution and are not under financial duress at that time are not counted as financially impaired.

2. Construction of Default Rates of Corporates. This table was not constructed by directly observing the default rates of corporate ratings on the 21-point Issuer Credit Rating (ICR) scale because default data associated with corporate ICRs is sparse. Rather, this table was constructed by a) converting each default rate associated with each Financial Strength Rating (FSR) to its equivalent operating company ICR based on AM Best's FSR/ICR translation table, and then, b) converting the operating company ICR to an equivalent corporate rating based on a notching algorithm set forth in the criteria, Insurance Holding Company and Debt Ratings, to reflect the legal separation of insurance holding companies from operating insurers as well as the normal subordination of insurance holding company creditors to operating company policyholders.

3. Ratings a Measure of Relative Credit Risk. AM Best's Credit Ratings generally are intended to indicate the relative degree of credit risk of an obligor or debt instrument rather than reflect a measure of specific default probability.

4. Data Does Not Necessarily Reflect Default Expectations. The data in this table does not necessarily reflect our default rate expectations. For example, the fact that we show no default rate for the 1-year "aaa" category does not mean that we expect no defaults for this rating. It only means that we have not yet observed any historical defaults over a 1-year period for corporate obligations with an equivalent "aaa" rating.

5. Data Changes Periodically. AM Best may periodically change the data in the table if warranted. The reasons for the revisions may be as follows: If AM Best 1) adds more rating cohorts which significantly changes the calculated default rates, 2) changes its criteria for recognizing insurance company defaults, or 3) incorporates new defaults or adjusts existing default data.

ASSET-BACKED SECURITIES DEFAULT RATES (All Subclasses)

ICRs	1 - Year	3 - Year	10 - Year
aaa	0.03%	0.11%	0.42%
aa+	0.08%	0.14%	0.58%
aa	0.11%	0.17%	0.69%
aa-	0.14%	0.28%	0.88%
a+	0.16%	0.33%	1.09%
a	0.20%	0.41%	1.31%
a-	0.22%	0.62%	2.24%
bbb+	0.28%	0.96%	3.45%
bbb	0.35%	1.26%	4.50%
bbb-	0.45%	1.56%	5.48%
bb+	0.84%	2.90%	10.00%
bb	1.23%	4.68%	15.65%
bb-	1.56%	6.02%	19.50%
b+	3.28%	9.73%	31.11%
b	3.73%	10.80%	33.58%
b-	4.77%	13.08%	38.23%
ccc+	6.74%	17.66%	47.84%
ccc	10.33%	20.41%	49.46%
ccc-	13.85%	23.11%	51.07%
cc	19.53%	28.87%	57.44%
c	23.30%	31.74%	59.04%

Source: Best's Insurance-Linked Securities & Structures Methodology

Best's Idealized Issue Default Matrix (Exhibit E.2)

1. Asset-Backed Securities Default. AM Best designates an asset-backed security as being in default if the issuer of the security failed to timely pay principal or interest due according to the terms of the security.

2. Construction of Default Rates of Asset-Backed Securities. This table was not constructed by directly observing the default rates of asset-backed securities. The default rates of the ratings in this category are equivalent to the default rates in Best's Idealized Issue Default Matrix. This matrix reflects AM Best's long-term view of defaults of asset-backed securities and structured finance transactions. This view was formed by considering the defaults associated with operating insurance companies rated by AM Best, the notching process employed to derive the ratings associated with holding company debt obligations, and the need to make distinctions between rating categories.

3. Ratings a Measure of Relative Credit Risk. AM Best's Credit Ratings generally are intended to indicate the relative degree of credit risk of and obligor or debt instrument rather than reflect a measure of specific default probability.

4. Data Changes Periodically. The data in the table will change if AM Best modifies Best's Idealized Issue Default Matrix. This matrix is published in Best's Insurance-Linked Securities & Structures Methodology and may be revised based on more recent insurance company default data.

For ratings issued in or endorsed into the European Union, historic default rates published by ESMA are available at:

<https://registers.esma.europa.eu/cerep-publication/>

For ratings issued or endorsed into the United Kingdom, historic default rates published by the FCA are available at:
<https://data.fca.org.uk/#/ceres/craStats>

13. Information on the Sensitivity of the Credit Rating to Assumptions as required by Paragraph (a)(1)(ii)(M) of Rule 17g-7

Topic	(1) Key Assumption Detail	(2) Potential Impact on the Rating
Data Accuracy and Reliability	While public information is considered as part of the rating process, AMB relies primarily on audited financial statements, third party actuarial reports, documents and assertions provided by management. The assumption is that the financial information provided is reliable and credible, although AMB does not undertake to verify the accuracy of this information.	A material misstatement of financial performance or capital position, whether through negligence or fraud, could negatively affect a company's rating. For example, inflated asset valuations or a faulty actuarial opinion of reserve adequacy could result in an incorrect assessment of the financial strength of a company.
Equity markets	Assumes reversion to mean historical returns.	Significant declines in global equity markets of > 30% would result in greater net amount at risk and need to set up additional reserves for equity linked products. Also results in lower product fees and risk adjusted capitalization which could negatively impact the rating.
Catastrophe Model Risk	Key assumption used in determining this rating takes into consideration information provided by third party catastrophe modelers. Best does not validate these models but assumes a degree of confidence in these models which Best uses as a benchmark to measure a company's exposure to modeled catastrophe risk. Best also uses this modeled output as a discussion point around enterprise risk management and risk mitigation. While this output can have a high degree of variability, Best believes these models are very useful tools which provides its users with the expertise, research and technical knowledge otherwise unavailable to them. Company specific data quality, data resolution and historical model reliability are also elements which lend itself to confidence in the modeled loss provided.	Catastrophe models are risk management tools that can vary widely due to the actual event (versus model event set) and model sensitivities including geocoding / data resolution, data quality (construction / ITV), reliability (missing information) and coverage. Therefore, if assumptions used in the model prove to be significantly different from actual performance, a company's capital position can be potentially exposed to a material negative impact due to a lack of reinsurance protection. Rating pressure may occur as a result.
Reinsurance Market Capacity and Credit Risk	A key assumption used in the determination of this rating assumes no material change in availability and/or credit quality of its reinsurers; receivable balances to be current with no evidence of overdue material balances or third-party credit default/dispute risk. Given the significant role that third party reinsurance plays in this rating, this rating is heavily dependent on reinsurance and susceptible to reinsurer default.	In the event reinsurance capacity available to the company is materially and negatively impacted and/or its reinsurers inability or unwillingness to pay its claims, negative rating pressure could occur.
Regulatory Risk	A key assumption used in determining this rating takes into account this company's significant concentration risk and exposure to changes in judicial, regulatory and legislative decisions. This assessment assumes no material changes in these areas but is considered as part of this	Due to the company's significant concentration risk, it's exposure to changes in judicial, regulatory and legislative decisions could adversely impact the ongoing operational and underwriting strategies of the company. This could result in a potential impact on the Credit Ratings prospectively and is considered as part



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Topic	(1) Key Assumption Detail	(2) Potential Impact on the Rating
	company's qualitative review and business profile.	of this company's qualitative review and business profile.

14. Information on the Representations, Warranties, and Enforcement Mechanisms as required by Paragraph (a)(1)(ii)(N) of Rule 17g-7

The representations, warranties, and enforcement mechanisms available to investors which were disclosed in the prospectus, private placement memorandum, or other offering documents for the asset-backed security and that relate to an asset pool underlying the asset-backed security. This disclosure only applies to Rating Actions associated with asset-backed securities as defined by section 3(a)(79) of the Securities Exchange Act of 1934, as amended. Furthermore, the disclosure applies to asset-backed securities that were initially rated on or after September 26, 2011.



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15. Attestation as required by Paragraph (a)(1)(iii) of Rule 17g-7

Attestation

Attached is a signed statement by a person within AM Best that has responsibility for the Rating Action and, to the best knowledge of the person: (A) No part of the Credit Rating was influenced by any other business activities; (B) The Credit Rating was based solely upon the merits of the obligor, security, or money market instrument being rated; and (C) The Credit Rating was an independent evaluation of the credit risk of the obligor, security, or money market instrument.

As the person responsible for this Rating Action, which was determined through the rating committee process, to the best of my knowledge:

- No part of the Credit Rating was influenced by any other business activities;
- The Credit Rating was based solely upon the merits of the obligor, security, or money market instrument being rated; and
- The Credit Rating was an independent evaluation of the credit risk of the obligor, security, or money market instrument.

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Name, Title: **/s/ Joseph A. Burtone**, Director



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16. Additional Regulatory Disclosures

Balance Sheet Strength: Very Strong

- Northern Mutual Insurance Company (NMIC) maintains the strongest level of risk-adjusted capitalization, as measured by Best's Capital Adequacy Ratio (BCAR) at the 99.6% VaR level. Policyholders' surplus has grown in four of the past five years, with the exception of 2022.
- Mostly favorable loss reserving trends over the past ten years, but adverse reserve development has been reported in some years due to the private passenger auto line of business. However, overall reserve leverage is low and any miscalculation in pricing or reserving is not likely to have a material impact on risk-adjusted capitalization.
- Comprehensive reinsurance program with net probable maximum losses that are low in relation to policyholders' surplus. Reinsurance dependence is moderate and compares favorably to industry composite averages.
- A high-quality portfolio of diverse investments contributes to solid liquidity measures. Common stock leverage is elevated relative to the composite, which exposes policyholders' surplus to stock market volatility as reflected in 2022 where the company reported sizable unrealized capital losses. However, equity market volatility is somewhat mitigated due to the predominant share of equities held in mutual funds.
- Limited financial flexibility and scale of operations.

Operating Performance: Adequate

- In general, pre-tax and total returns on revenue and equity fall short of the industry composite average on a five-year basis but are more comparable over the longer term. There has been additional volatility exhibited in results in recent years, particularly in 2022.
- Favorable pre-tax operating gains and net income have been reported for four of the past five years. The company reported losses in 2022, as well as year-to-date, due primarily to weather-related events, inflationary pressures on rising loss costs, and several large loss claims.
- Varying underwriting results have been mainly due to the auto lines of business, where management is focused on improving rate adequacy and, to a lesser extent, homeowners. Despite this variability, the company's five-year combined ratio outperforms the composite and the operating ratio remains comparable.
- NMIC's five-year average underwriting expense ratio compares unfavorably to the composite due to higher-than-average commission expenses, though this is partially offset by a loss & LAE ratio that outperforms the composite by over ten points.

Business Profile: Limited

- Geographically concentrated in the state of Michigan, which exposes results to frequent and severe weather-related events as well as potential judicial, economic, or regulatory challenges.
- NMIC primarily writes homeowners, auto liability and physical damage as well as dwelling fire, allied lines, and other miscellaneous coverages. A personal umbrella product was recently introduced, which is expected to help with overall retention levels.
- NMIC operates in a competitive homeowners and private passenger standard automobile insurance industry. Extensive local market expertise helps to offset the challenges associated with a limited market position.

Enterprise Risk Management: Appropriate

- Risk management capabilities are appropriately commensurate with the complexity of business and align well with the company's risk profile.
- The ERM framework is formally developed and overseen by senior leadership and the board of directors. Key enterprise risk factors as well as emerging risks are identified and re-assessed as needed.
- A comprehensive reinsurance program significantly mitigates tail-risk exposure to catastrophe loss events and includes highly rated reinsurers.



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Outlook Rationale

The stable outlooks reflect NMIC's key operating performance metrics, which are expected to remain supportive of the adequate assessment despite the recent volatility exhibited in results. It is expected that policyholders' surplus growth will continue with some fluctuation due to variable operating results, but overall risk-adjusted capitalization should remain in the strongest category.

Note: An outlook determination is assigned in tandem with a Best's Credit Rating and other opinion types to supplement the opinion by providing an indication of the potential future direction of the opinion over an intermediate period, generally defined as 36 months. For additional information refer to: [Guide to Best's Credit Ratings](#)

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