Why Insurers Can Fail

November 22,2023

RIEF INSURANCE SOLUTIONS

Table of Content

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RIEF INSURANCE SOLUTIONS

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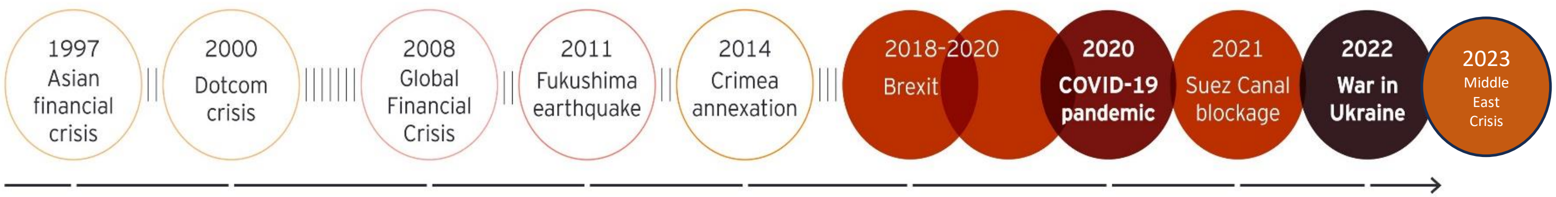
Table of Content

Frequent Global Shocks Signal an Era of Disruptions ...

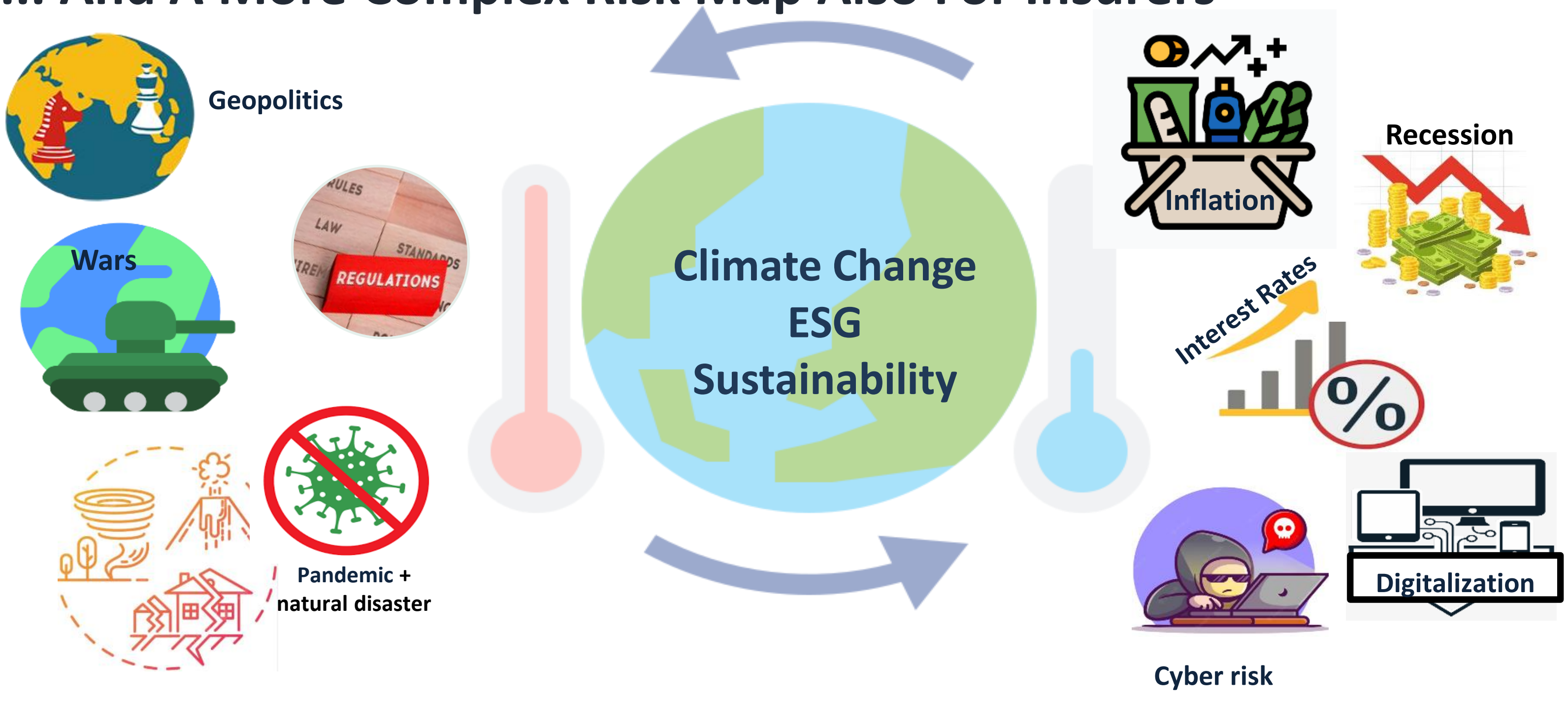
Frequent global shocks signal the beginning of an era of disruptions

Large-scale disruptions to the global economy are occurring much more often.



Large-scale disruptions to the global economy are occuring much more often

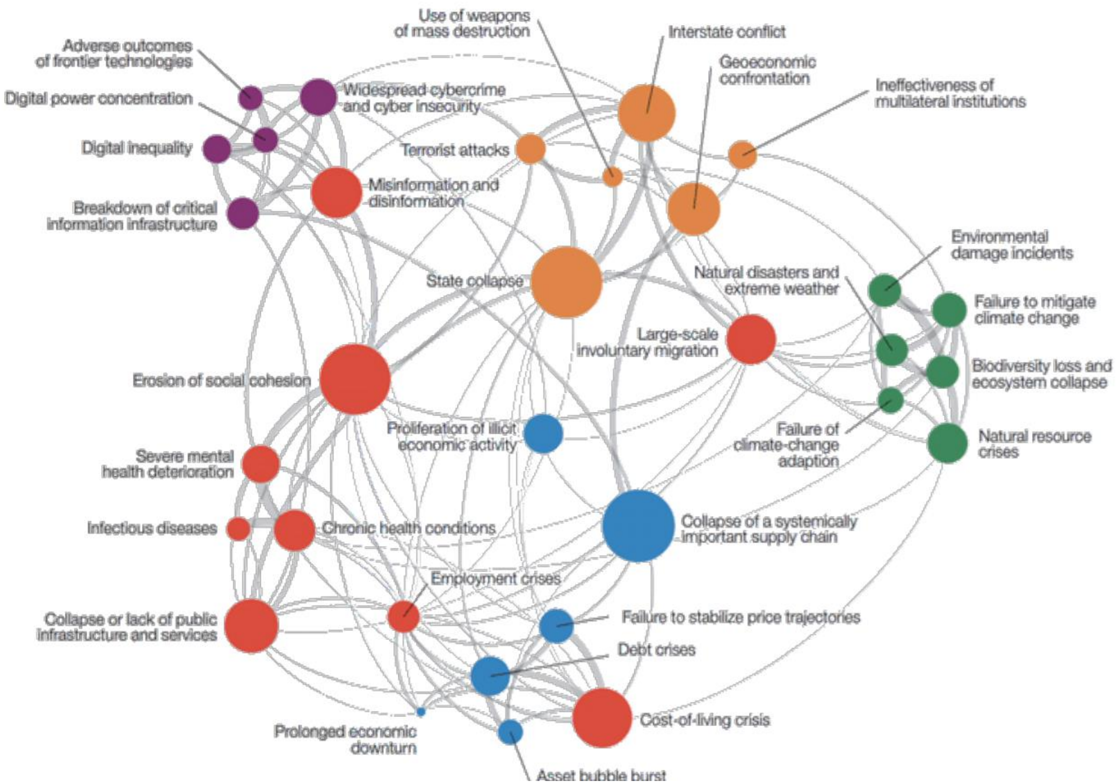
... And A More Complex Risk Map Also For Insurers



Source: various reseach, e.g. EIOPA, EY, PwC, S&P

- Despite their fundamentally very stable business model insurers have to compete in an evermore complex environment
- Chance: Identification of opportunities and reduction of weaknesses
- Risk: Business model potentially not successful

Interconnectivity of Risks



Market environment –

increasingly interconnected between risk categories, with a higher degree of contagion

- Economic
- Environmental
- Geopolitical
- Societal
- Technological

Source AM Best, Nov 2023

Credit Drivers - Banana Skins

Centre for the Study of Financial Innovation

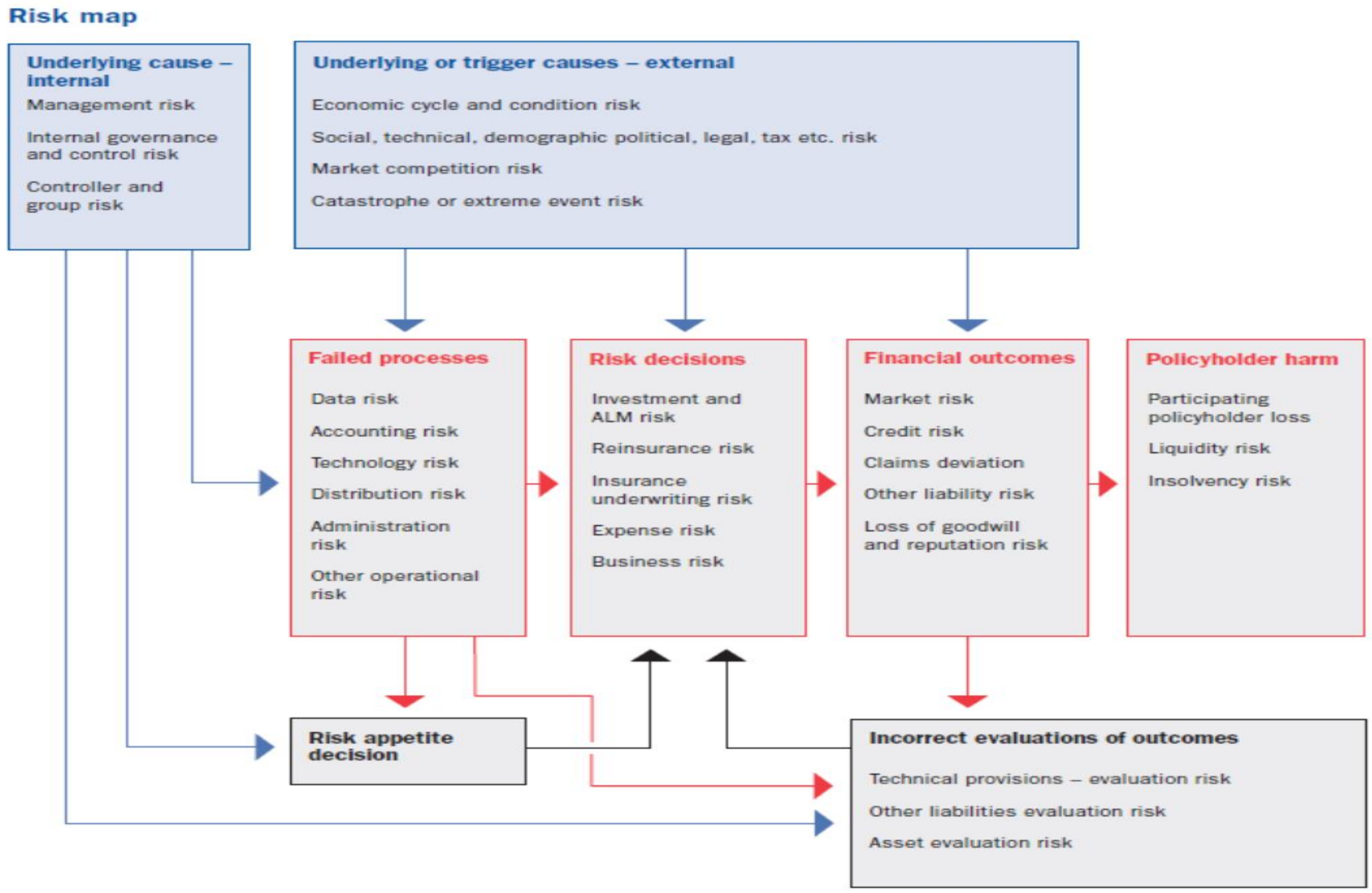
2023 Rank	Risk	2021 Rank		2019 Rank
1	Cyber Crime	1	-	2
2	Regulation	2	-	4
3	Climate Change	4	▲	6
4	Technology	3	▼	1
5	Human Talent	6	▲	8
6	Macro-Economy	10	▲	9
7	Artificial Intelligence	-	▲	-
8	Interest Rates	5	▼	10
9	Investment Performance	9	-	5
10	Change Management	7	▼	3

Source AM Best

Source: CSFI (Center for the Study of Financial Innovation). CFSI publishes these surveys since 2007.
The latest report is based on answers from a sample of 589 practitioners and close observers in 39 territories.

Table of Content

Why Do Insurers Fail? (1)



Source: Property and Casualty Insurance Compensation Corporation (PACICC, Canada)

Insurers Fail ... Numbers

Number of failures between 2000 and 2020

'Failures' and 'Insolvencies' are used interchangeably with the term 'involuntary exit'

The survey of PACICC counts 547 failures in about 55 jurisdictions around the globe.
The report counts 369 P&C failures and 151 life failures., 27 are composites and reinsurers.

In the OECD countries over the 10-year period from **2012 to 2021**, the average insolvency rates were: (Number of insurance failures in OECD countries/total number of insurers in all OECD countries in the year)

Total: 1.33 insolvencies
P&C: 1.18 insolvencies
Life: 1.80 insolvencies

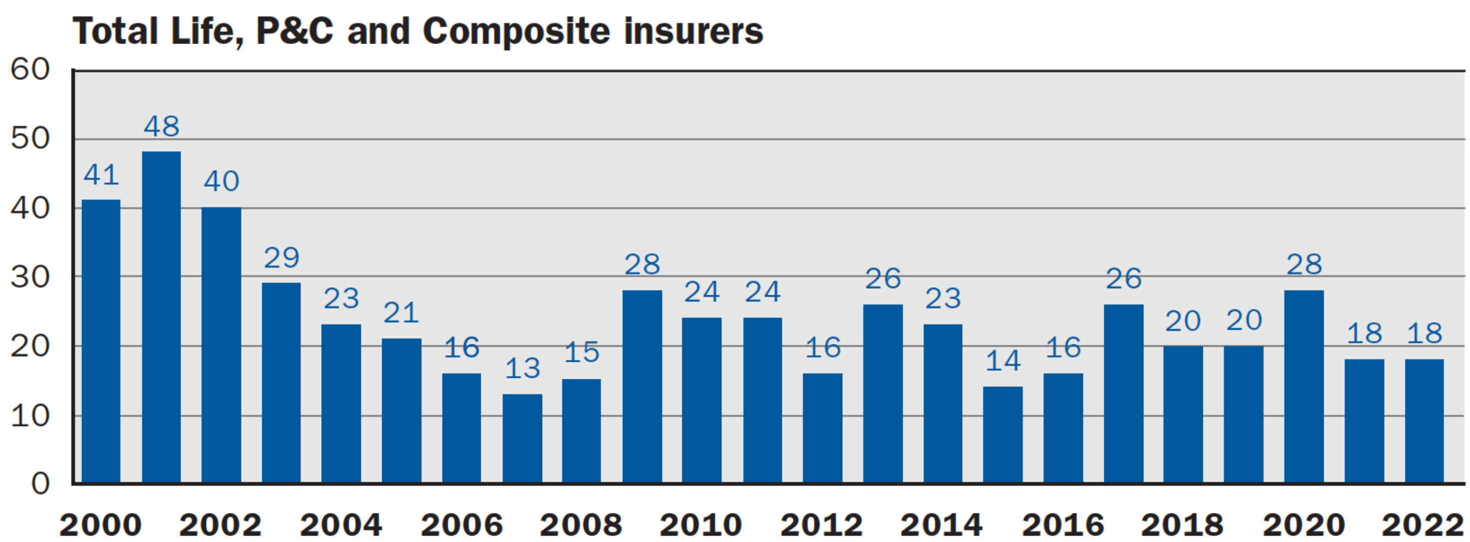
per 1.000 total insurers

The likely explanation for the higher rate for life insurers is that there are fewer life insurers competing in these markets; or in other words life insurance is a more concentrated industry. Additionally life insurers generally can remedy misled strategies only in the long-term. P/C insurers generally can react much faster.

EIOPA in its 2021 study of Failures and Near Misses in Insurance counts over the period 1999 to 2020
219 cases. (Near misses means cases where the insurer recovered and remained in the marketplace; please note that near misses are not accounted as defaults.)
Most of the cases occurred before Solvency II became effective in 2016.
Except for 2008, in which EIOPA reported 35 cases, 2014 – 2016 constitutes the period with the highest number of cases.

Sources: PACICC; EIOPA

Total number of insurers that failed - by year



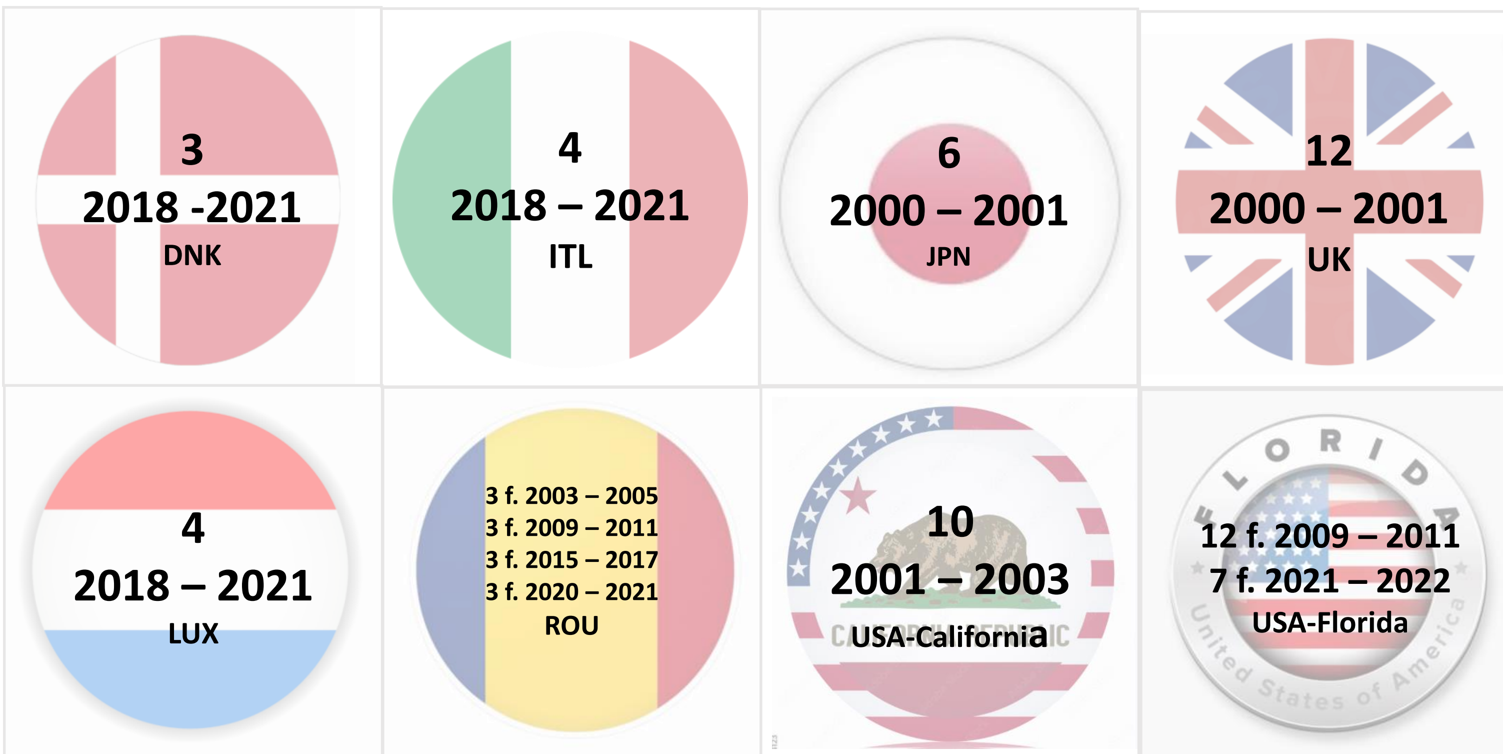
Between 2000 and 2022, PACICC idenfified 547 Insurers that failed around the globe.

Source: PACICC

Insurers typically fail in clusters (1)

Observations regarding failure frequencies (examples)

The evidence shows that, within individual countries, insurers often fail in clusters with up to a decade between the last failure in a cluster and the next failure.



Source: PACICC

Insurers typically fail in clusters (2)

- A possible explanation for the clustering of failures is that difficult market conditions impact all companies in that market. (for example, changes in the claims climate, change of interest rates)
- These impacts are successfully managed by healthy companies. Insurers with weaker balance sheets cannot handle these difficulties, and subsequently fail, but not alone.

Source: PACICC

Causes for insurers‘ failures

1 Internal control & operations

- Poor underwriting & loss reserving
- Poor diversification geographic concentration or rapid growth
- Poor investment
- Poor capital management

2 External governance

- Parent or subsidiary oversight
- Risky mergers & acquisitions
- Contagion risk

3 Regulatory oversight

- Lax insurance supervision
- Collusion between insurers and supervisors (more in developing markets)

4 Catastrophe risk (Nature disaster)

- Increasing risk, e.g 30% of P&C insurers 2020-2021
- 1997 Polish flood, contributing factor for the failure of TUR Polisa in 2000, which is the only insurance failure within the total period 2000 – 2020

Internal control & operations are Key

Source: PACICC

Conclusions

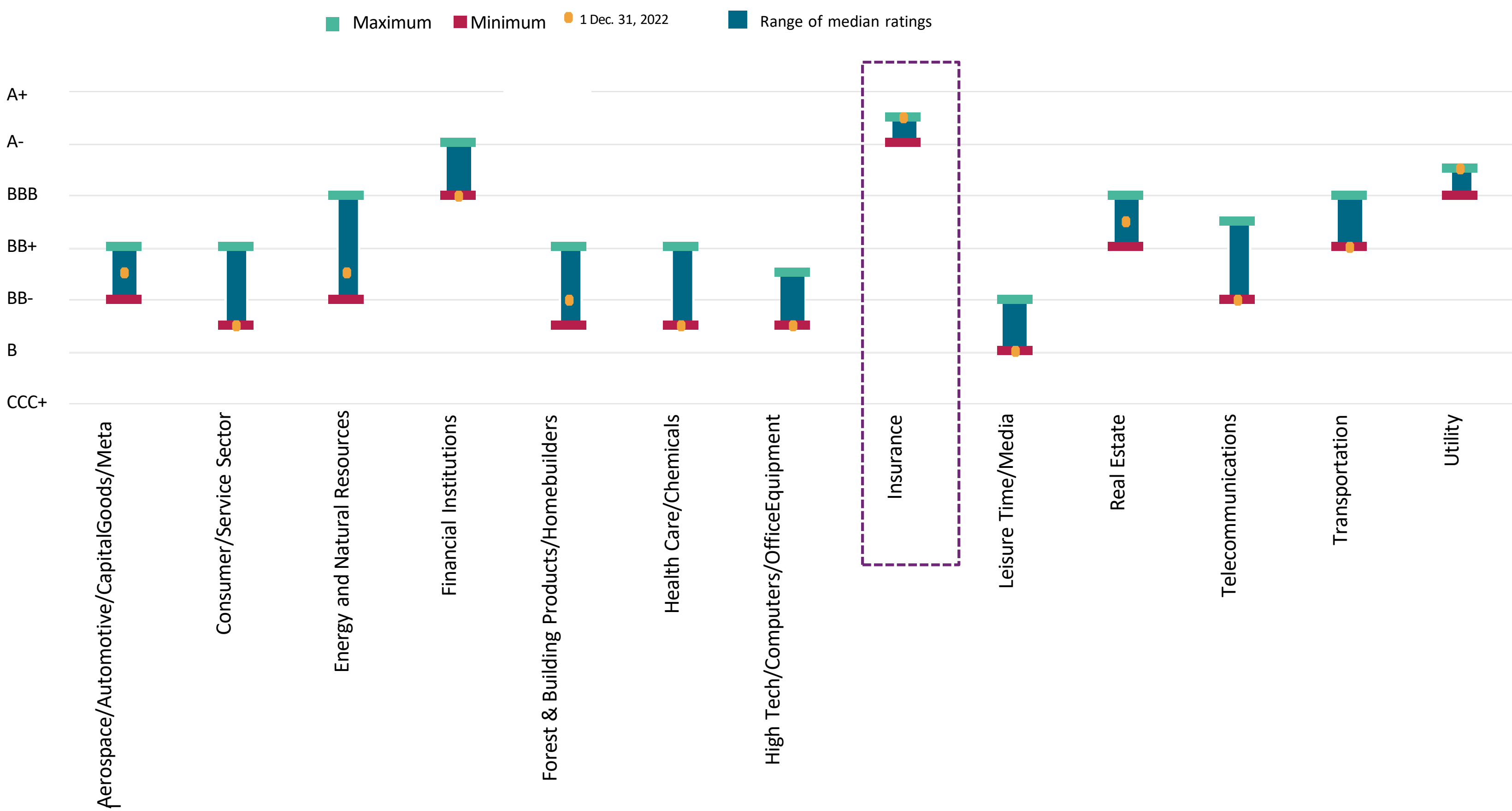
- Insurers still fail despite significant improvements in solvency regulation
- Solvency regulation systems are designed to limit, but not to eliminate failures
- The rate of insolvencies is relatively higher for life insurers then for P&C insurers
- It normal for jurisdictions to have long periods with no insolvencies, however when failures occur they often happen in clusters of three or more.
- The rate of insurers failures varies across jurisdictions
- Catastrophe risk for P&C insurers caused by increasingly severe natural catastrophes appears to be rising.

Source: based on PACICC information

Table of Content

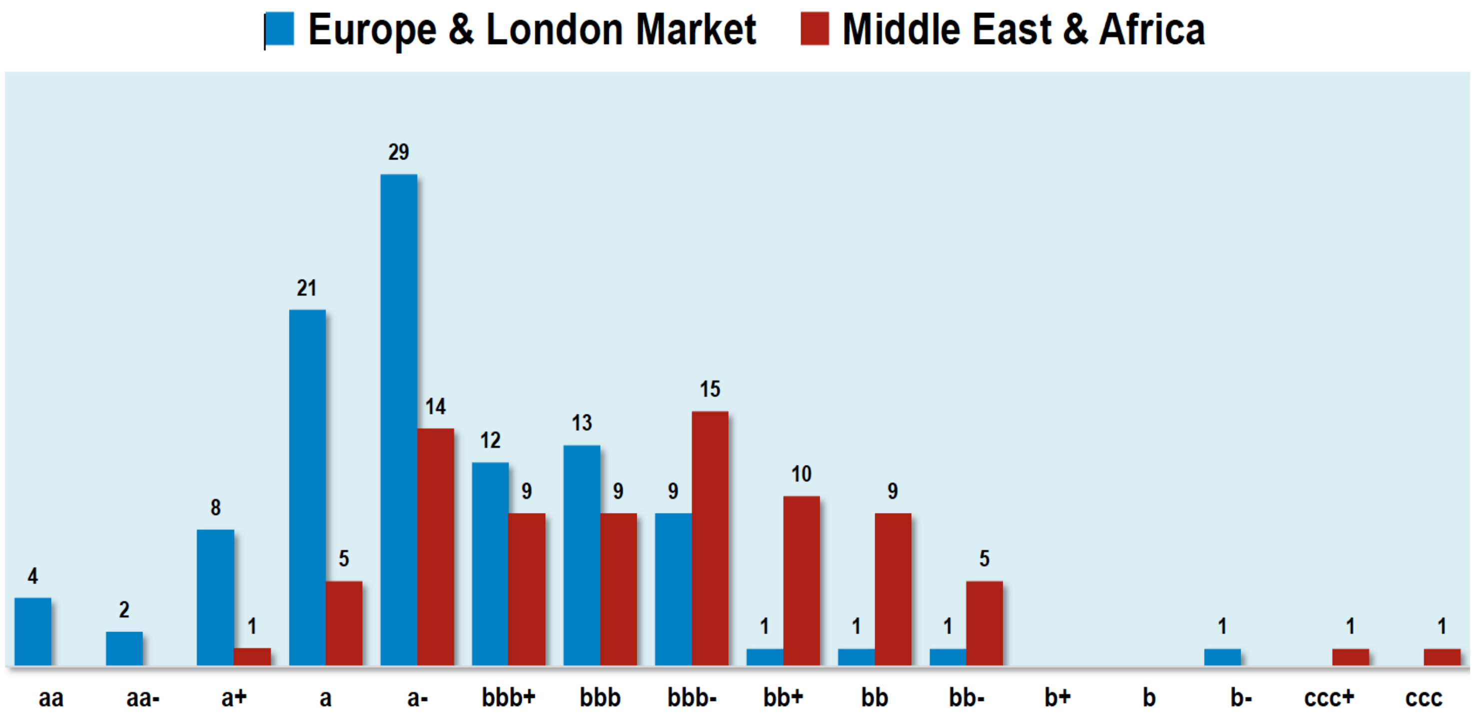
Global Insurers Started 2023 In A Strong Position

Median rating range by industry for the past 20 years (operating company issuer credit ratings)



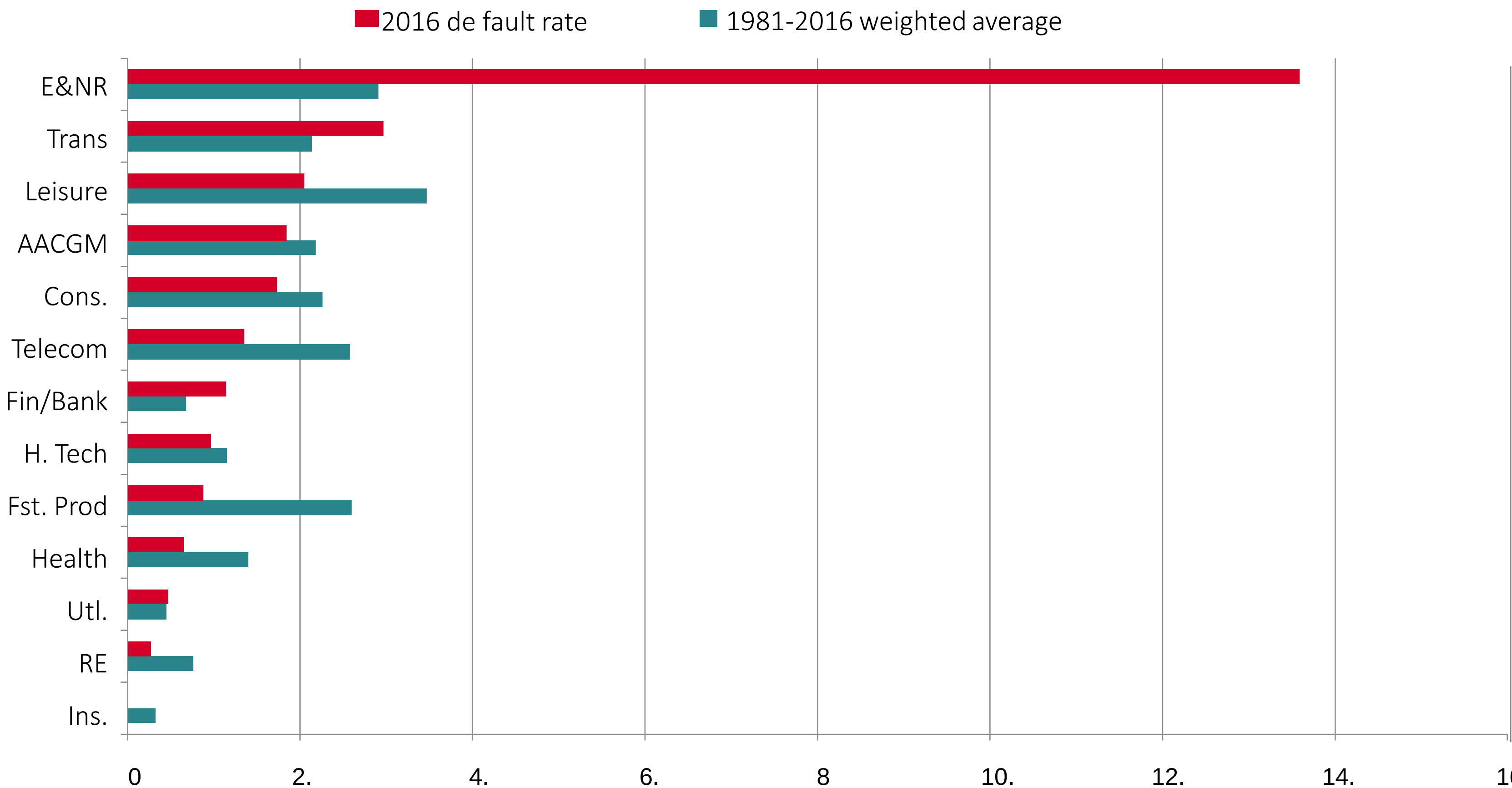
Data as of Dec. 31, 2022. Ranges computed from 2003-2022. Data has been updated to reflect confidential issuers. Sources: S&P Global Ratings Research & Insight and S&P Global Market Intelligence's CreditPro®.

Issuer Credit Ratings EMEA - Count



Source : AM Best Nov, 2023

S&P Default Rates By Industry



Source: Default, Transition, and Recovery: 2016 Annual Global Corporate Default Study And Rating Transitions, April 13, 2017, S&P Global Fixed Income Research and S&P Credit Pro®, Chart 2.

E&NR--Energy and natural resources. Trans.--Transportation. Leisure--Leisure time/media. AACGM--Aerospace/automotive/capital goods/metal. Cons.--Consumer/service sector. Telecom.--Telecommunications. Fin.--Financial institutions. H. tech--High technology/computers/office equipment. Fst. prod-- Forest products and building materials/homebuilders. Health--Health care/chemicals. Util.--Utilities. RE--Real estate. Ins.--Insurance

Insurers' Business Models are Generally Much More Stable than those of Banks

1. **Business model of insurers is relatively stable, e.g. when compared with banks.**

This are the key characteristics of ..

BANKS

a. Banks do generally **need to issue debt** in order to be able to do business.
b. Banks need to rely that **customer are capable and willing to pay interest and principal.**
c. Banks **need to pay interest and principal to investors.**

INSURERS

a. The **business model of insurers is generally naturally liquid.**
   - Insurers do generally not need prefunding mechanisms as premiums are paid upfront, and thus have a significantly lower refinancing dependency and leverage than banks.
   - Significant net catastrophe hits normally limited, if adequate reinsurance protection in place.

b. Insurers generally **do not have any repayment issues.**
   - In case of a claim it is the client that has to rely on the financial strength of the insurer.
   - High policyholder surrender activity normally seldom.

Insurers' Business Models are Generally Much More Stable than those of Banks

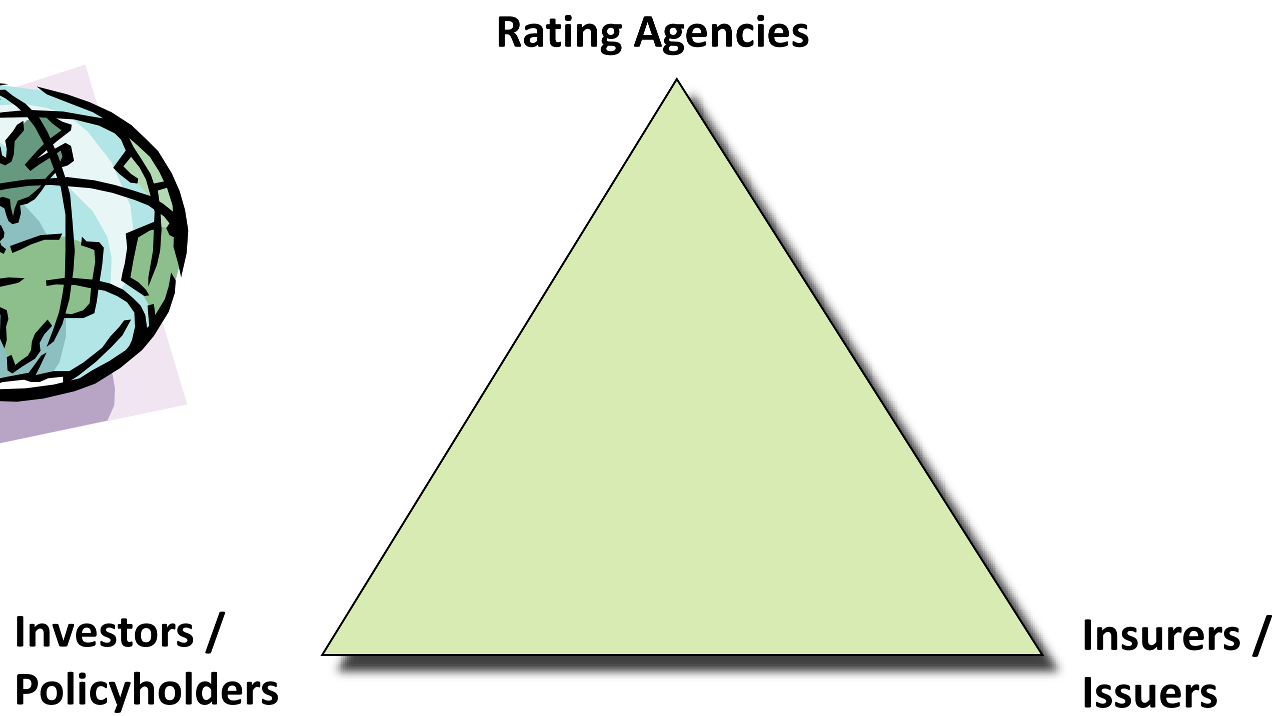
2. **Business model of insurers was relatively unaffected e.g. by the global financial crisis**
   Insurers that were impacted, were involved in banks or credit default swaps, or had riskier investment strategies.

3. **Insurers are generally not as interlinked as banks; there is almost no contagion risk**

4. **Insurers are significantly less systematically important entities compared with banks.**
   The Financial Stability Board (FSB) had originally designated 9 insurers as Globally Systematically Important Insurers. Since 2018 the FSB has suspended the reporting on individual insurance groups. In contrast in 2022 their were 30 banks (including Credit Suisse) reported as Globally Systematically Important Banks.

Table of Content

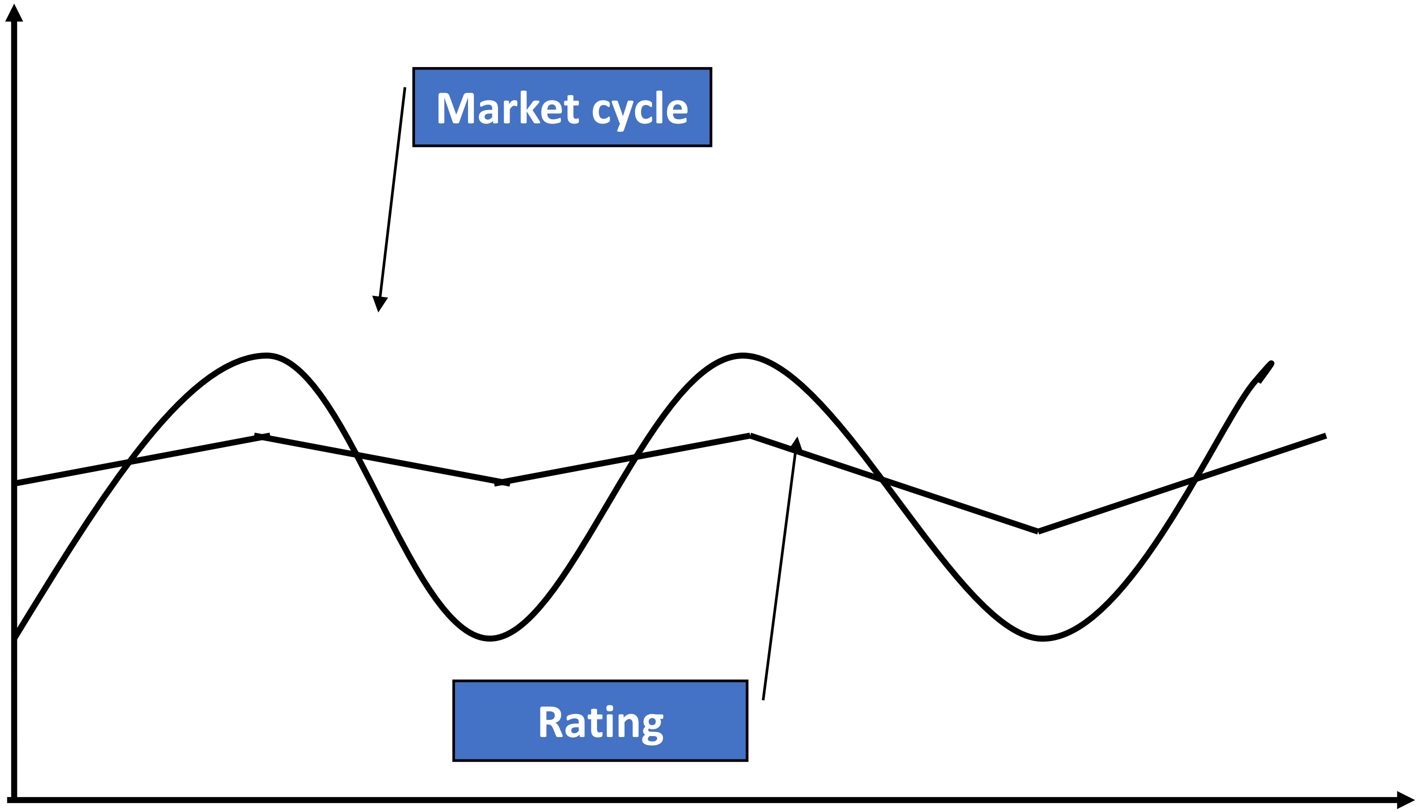
Ratings Designed to Help Reducing Information Asymmetries



Potential Value of Ratings

1. Improved information base for decision-making. How sound and viable is the enterprise?
2. Holistic analysis – similar to the Solvency II process
3. Transfer of complex facts and analytical process into simple symbols/global comparisons
4. Support for investment decisions
5. Support for access to certain business segments and capital markets
6. Continued exchange with analysts
7. Driver for Enterprise Risk Management
8. Driver for market discipline?

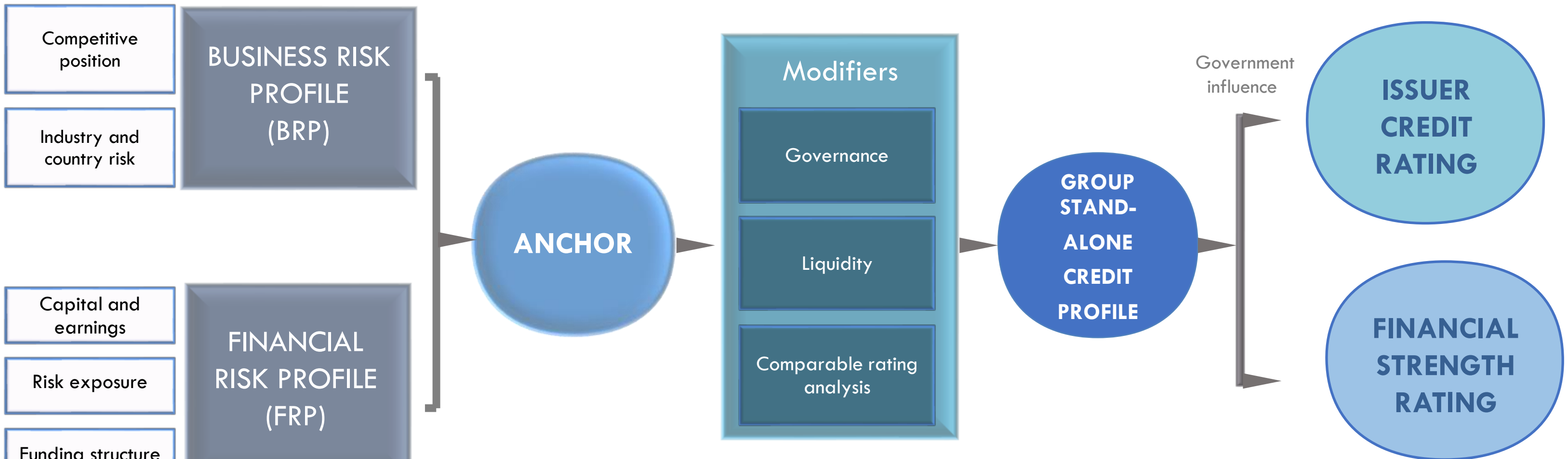
Market Cycles and Ratings



Source: graph based on S&P information

Stability of ratings is an important rating factor for S&P. Stability has an increasing importance, if the significance of defaults is decreasing, ni.e. especially for higher ratings

Insurance Criteria for Groups - Overview



Source: graph based on S&P information

The Group Standalone Credit Profile can potentially be supported by government aspects; otherwise sovereign ratings may act as caps. The group assessment including such potential support or cap is then called **Group Credit Profile (GCP).**
The GCP typically then transfers into the Issuer Credit Rating. The GCP is not a rating and therefore expressed in lower case letters whereas the ICR or Rating is expressed in capital letters. (similar to the previous criteria)

No distinct assessment of ERM and Management and Strategy; important related aspects are included directly in the BRP and FRP

The Combination of BRP and FRP Constitute the Anchor

Business Risk Profile	Financial Risk Profile							
	1. Excellent	2. Very strong	3. Strong	4. Satisfactory	5. Fair	6. Marginal	7. Weak	8. Vulnerable
1. Excellent	aa+	**aa**	aa-	a+	a-	bbb	bb+	b+
2. Very strong	aa	**aa/aa-**	**aa-/a+**	a+/ a	a-/bbb+	bbb/bbb-	bb+/bb	b+
3. Strong	**aa-/a+**	**a+/a**	**a/a-**	**a-/bbb+**	bbb+/bbb	bbb-/bb+	bb/bb-	b+/b
4. Satisfactory	a	a/a-	a-/bbb+	bbb+/bbb	bbb/bbb-	bb+/bb	bb-/b+	b/b-
5.Fair	a-	a-/bbb+	bbb+/ bbb	bbb/bbb-	bbb-/bb+	bb/bb-	b+/b	b-
6. Weak	bbb+/bbb	bbb/bbb-	bbb-/bb+	bb+/bb	bb/bb-	bb-/b+	b/b-	b-
7. Vulnerable	bbb-/bb+	bb+/bb	bb/bb-	bb-/b+	b+/b	b/b-	b-	b-

Source: table based on S&P information;
The **cells** in green show the distribution of anchors for rated groups in Germany, Austria, Switzerland (September2023)

BRP: Business Risk Profile; FRP: Financial Risk Profile

Guidance for Assessing an Insurer's Business Risk Profile (BRP)

- The **Business Risk Profile (BRP)** measures
  a. risks inherent in an insurer's business operation
  b. the implied growth and profit potential

- The BRP is assessed based on **two factors**:
  a. Insurance Industry and Country Risk Assessment (IICRA)
  b. Competitive Position

Source: S&P

Assessing The Business Risk Profile

IICRA = Insurance Industry and Country Risk

Business Risk Profile (BRP)						
	Competitive position assessment					
IICRA	1 .Excellent	2. Very strong	3. Strong	4. Satisfactory	5. Fair	6 .Weak
1 . Very low or 2. Low	0	0	0	0	0	0
3 . Intermediate	+1	0	0	0	0	0
4. Moderately high	+2	+1	+1	+1	+1	+1
5. High	+4	+3	+2	+2	+1	+1
6. Very High	+5	+4	+4	+3	+2	+1

- The IICRA acts as modifier to competitive position. The IICRA is predetermined by S&P per country, sector, or global sector. This assessment may be adapted by S&P by one or more categories for a given insurer if deemed adequate by S&P.
- In our sample the assessment of the IICRA is either intermediate or low; these assessments are neutral modifiers for the competitive position

Source: based on S&P information

Competitive Position

Competitive Position

Business Diversity

Consider business stability and resilience to stress as a key factor.
Unprofitable or risky linesof business do not add to diversity.

Competitive Advantage

Considers market positon, scale/efficiency of operations, brand and distribution.

Profitability

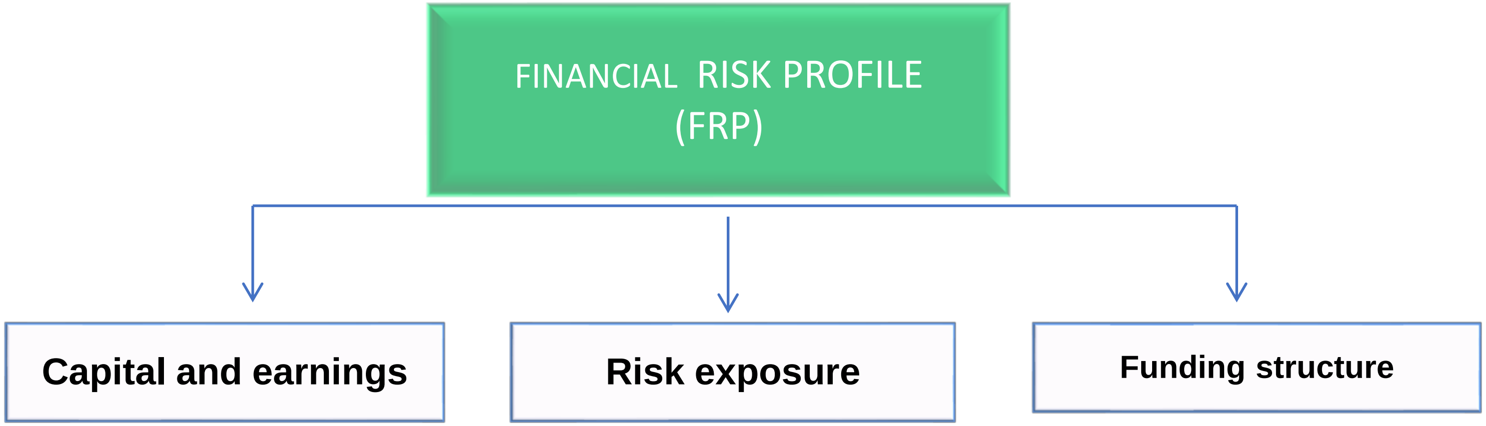
Considers the level, sustainability and volatility of an insurer'sprofitability, informed by analysis of risk-return optimization

business diversity; and limited to "Fair" if it lacks competitive advantage;

Source: based on S&P information

The principle based criteria have only very limited value for the practical assessment of the competitive position ; especially as there are no definitions or thresholds available in order to make practical assessments. Additionally S&P assesses these factors holistically, implying that there is no information on how the various factors are combined.

Key Elements of analyzing the Financial Risk Profile



Source: based on S&P information

Capital and Earnings: Capital Model Remains Key

On November 15, 2023 S&P has published its totally overhauled capital model

- S&P has said that it expects only up to 10% of ratings to move, with more going up than coming down (majority of rating changes estimated to be one notch).
- S&P has **increased the** confidence levels for calculating the risk requirements, and additionally has implemented higher catastrophe and pandemic inputs, leading to significant increases in total requirements. S&P expects that these increases may in most cases be offset by increased diversification benefits. Additionally, total adjusted capital (TAC) may increase owing to the removal of some haircuts to liability adjustments.
- S&P therefore also expects potential improvements for some highly diversified insurers, but also detrimental developments for less diversified or highly risk-exposed companies.
- Risk requirements per rating category are being increased.
  The range of confidence levels will be 99.5% (BBB),99.8% (A), 99.95% (AA), 99.99% (AAA), representing moderate through to extreme levels of stress over one year compared to the previous 97.2%, 99.4%, 99.7%, and 99.9%. It is noteworthy that the 99.5% confidence level aligns with regulatory regimes such as Solvency II, thus potentially allowing easier comparisons.

Source: based on S&P information

Risk Exposure Assessment

Risk Exposure

Risk Controls

Consider effectiveness in limiting losses and mitigating volatility to levels within its risk appetite

Risk not captured in C&E analysis

Exposure to employee post- employment defined- benefit obligations, foreign exchange risk, and contingent liabilities

Risk concentration and diversification

Identify concentrations or diversification of risks that may lead to greater or less volatility in the C&E assessment

Complexity of products and risks

New product areas, new markets or risk segments, or competes by offering more generous product features

Risk exposure assessment considers material risks that the capital and earnings analysis does not incorporate and specific risks that it captures, but that could make an insurer's capital and earnings significantly more or less volatile.

Source: graph based on S&P information

Funding Structure

A company with high leverage and a low fixed-charge coverage ratio is likely to have less capacity and flexibility to withstand a stress scenario.

Funding Structure

Financial leverage = $\frac{Financial\ Obligations}{Rep.\ Equity + Fin.\ Obligations}$

- If >40%: modifier assessment is typically “Moderately negative”.
- If >50%: modifier assessment is typically “Negative”.
- If financial leverage is close to thresholds and distorted due to material distortions in reported balances: may weaken the modifier by 1 or more categories.

Financial obligations to EBITDA

- Determines the number of years of normalized earnings required to pay back debt.
- Another measure of the sustainability of the level of debt taken on by an insurer.
- If > 4: may weaken the modifier by 1 or more categories.

Fixed-charge coverage

- If < 4: may weaken the modifier by 1 or more categories.

Source: graph based on S&P information

Access to external capital and liquidity is no longer part of the assessment and of the criteria

Determining the Group Standalone Credit Profile (GSACP)

Determining the SACP	
	Anchor
	'aa+ to b-'*
Governance	
Neutral	0 notches
Moderately Negative	-1 notch
Negative	-2 or more notches
Liquidity	
Exceptional	0 notches
Adequate	0 notches
Less then Adequate	Capped at 'bb+'
Weak	Capped at 'b-'
Comparable ratings analysis**	+1,0,-1 notch

* The modifiers do not lower the anchor below 'b-'.

** The comparable ratings analysis cannot be used to raise the SACP above the caps imposed by less than adequate and weak liquidity.

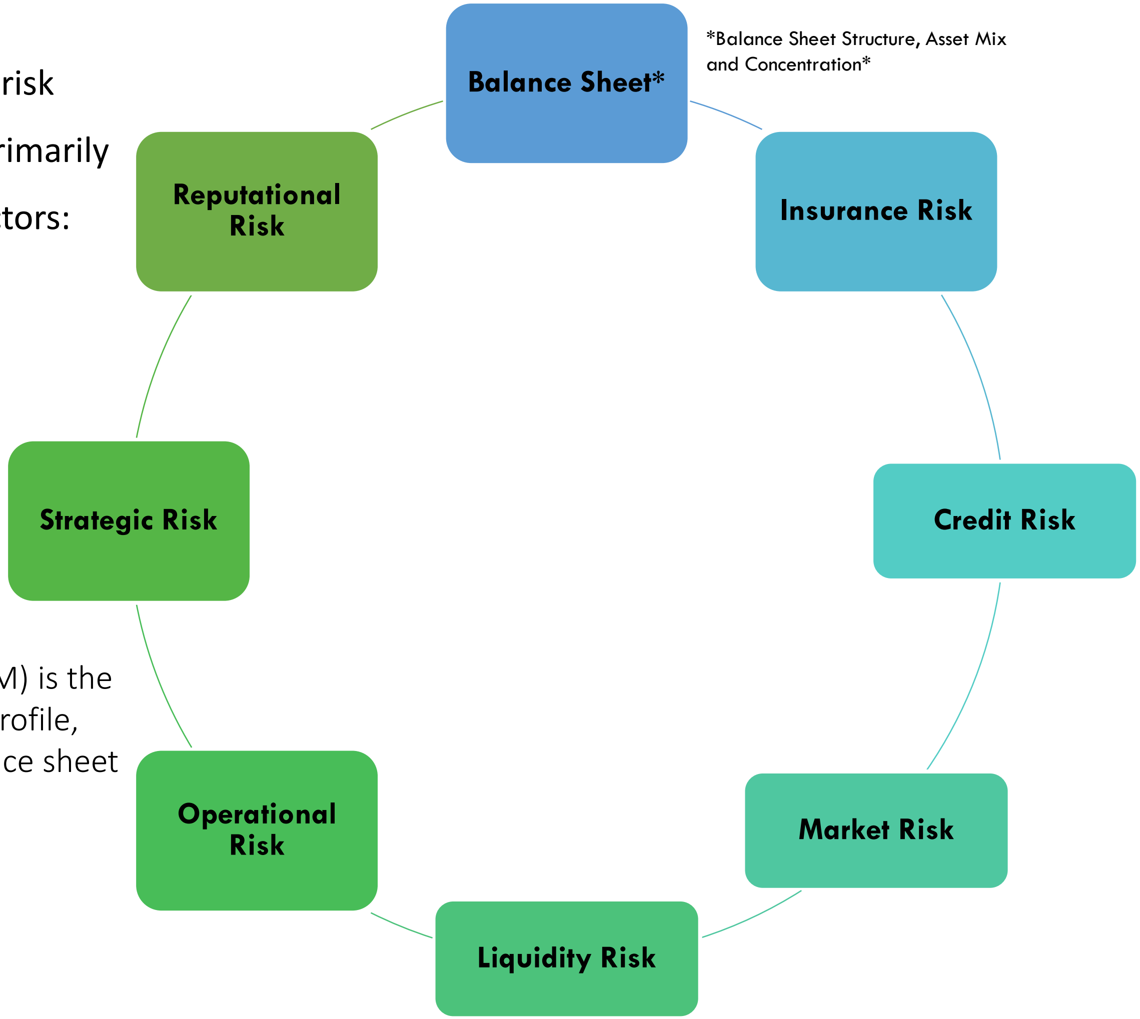
Source: based on S&P information

The GSACP generally – if not influenced by governmental/sovereign issues – transfers automatically into the rating

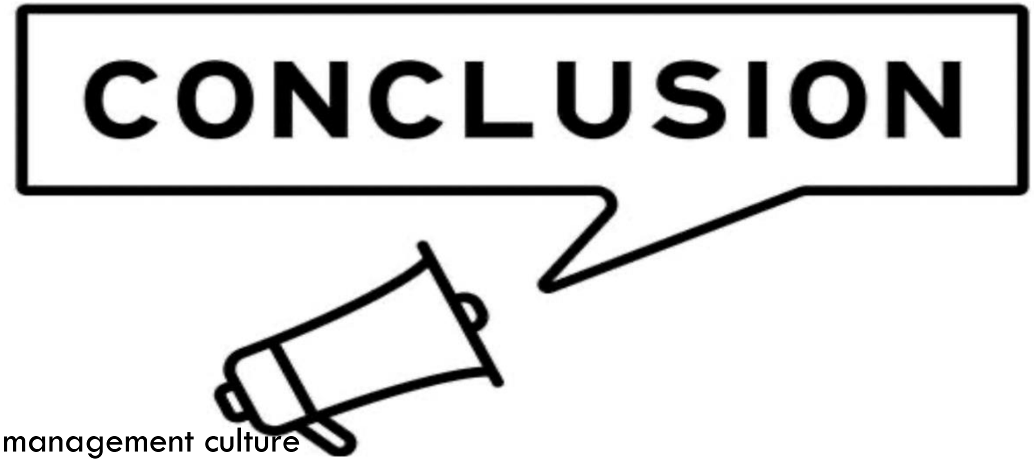
Table of Content

Insurance Basically is about Risk Taking & Risk Mitigation

An assessment of an insurer's risk profile and risk mitigation is primarily based on the following key factors:



Enterprise Risk Management (ERM) is the common link between business profile, operating performance and balance sheet strengths



- **ERM is not an option but a necessity**

- **ERM helps**
  - Developing a company-wide risk management culture
  - Detecting and preventing exposure to inappropriate risk taking and potential earnings and capital volatility
  - Overcoming silo approaches
  - Detecting risk accumulations across business segments
  - Although the primary function of ERM is to prevent downside, also the upside matters/develop risk/reward strategies

- Although the primary function of ERM is to prevent downside risks, also the upside matters (strategic risk management

- **However, ERM is not a panacea**
  - ERM is still a relatively young discipline
  - Embedding ERM structures and cultures throughout a firm continues to challenge organizations
  - Understand that the reliability of models is limited

Table of Content

Summary

- Defaults have significantly decreased over the past decade, however, reward requires risk and insurers failures or near misses will thus also occur in the future
- Failures due to signifcant exposure to natural catastrophes have significantly increased
- The improvements are partly due to more risk-based regulation, but also to companies adhering to Value Based Management and Enterprise Risk Management
- Insurers have become more sophisticated in their core business of risk selection, pricing and loss estimations.
- Enhanced capabilities provide management and regulators with better transparency

Permanent reinvention of business model necessary, in order to avoid getting caught in the maelstrom of a downwards spiral

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