

Survey of Emerging Risk in Asia-Pacific Markets



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Survey of Emerging Risks in Asia-Pacific Markets

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Survey of Emerging Risks in Asia-Pacific Markets

Introduction

The Survey of Emerging Risk has been successfully conducted in North America for 16 years, consistently providing reports that track risk managers' opinions on emerging topics transcending the current business cycle, with strategic plans extending over decades. Since 2022, the survey has been specifically introduced to the Asia-Pacific markets with local language support, aiming to gauge actuarial and risk management professionals' opinions on emerging risks in the Asian market.

The survey, sponsored by the Society of Actuaries (SOA) Research Institute, encompasses both quantitative and qualitative questions in English and Chinese (Simplified). Offering a wide array of response options and permitting anonymous comments, the survey results function as a platform for sharing the perspectives of local actuaries and risk managers on risks in the local market. Respondents are asked to choose the top current risks, emerging risks, and combinations from a list of 21 risks sorted into five categories (economic, environmental, geopolitical, societal, and technological). Additional inquiries focus on local risk management practices and the economic environment. Respondents are also encouraged to input further risk management considerations not covered by the survey provided in the open-ended questions.

The survey was open from March 1 to March 31, 2023, and received 38 effective responses. The respondents were primarily based in the Asian market, with a focus on mainland China and Hong Kong. Compared to the results from the previous year, the risks associated with the COVID-19 pandemic have diminished, while the financial impact of the Russia-Ukraine War continues to remain a significant concern. Interestingly, the risk views reflected in the survey results were significantly influenced by the recent emergence of the ChatGPT¹ generative AI trend.



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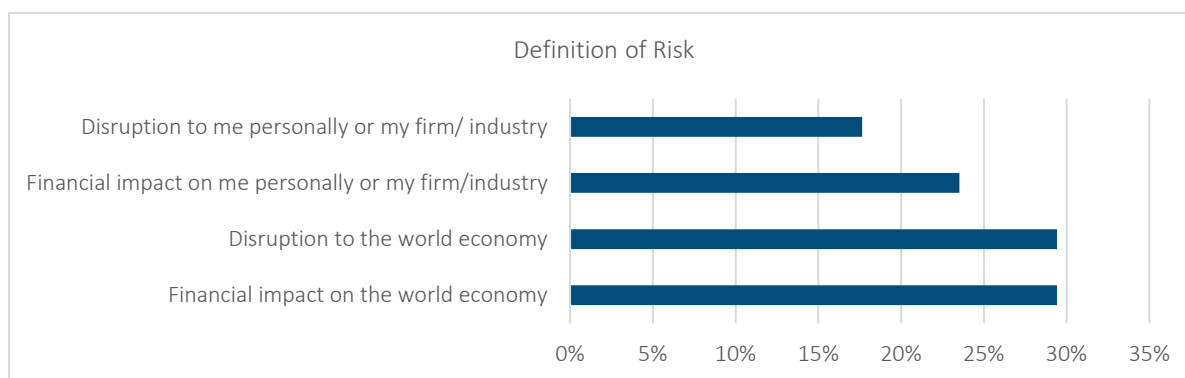


¹ OpenAI, "ChatGPT: A Generative AI Model by OpenAI," <https://chatgpt.org/>

Key Finding 1: Global Economic Vulnerabilities and the War Threat

The first section of the survey is designed to ask respondents about their current risk perceptions in order to reduce the anchoring effect and more accurately predict the future. Figure 1 shows that, compared to last year's pandemic responses², this year's responses are more concerned with the world economy and firm/industry-specific impacts, rather than the broader effects on safety and lives stemming from the COVID-19 pandemic.

Figure 1
DEFINITION OF RISK

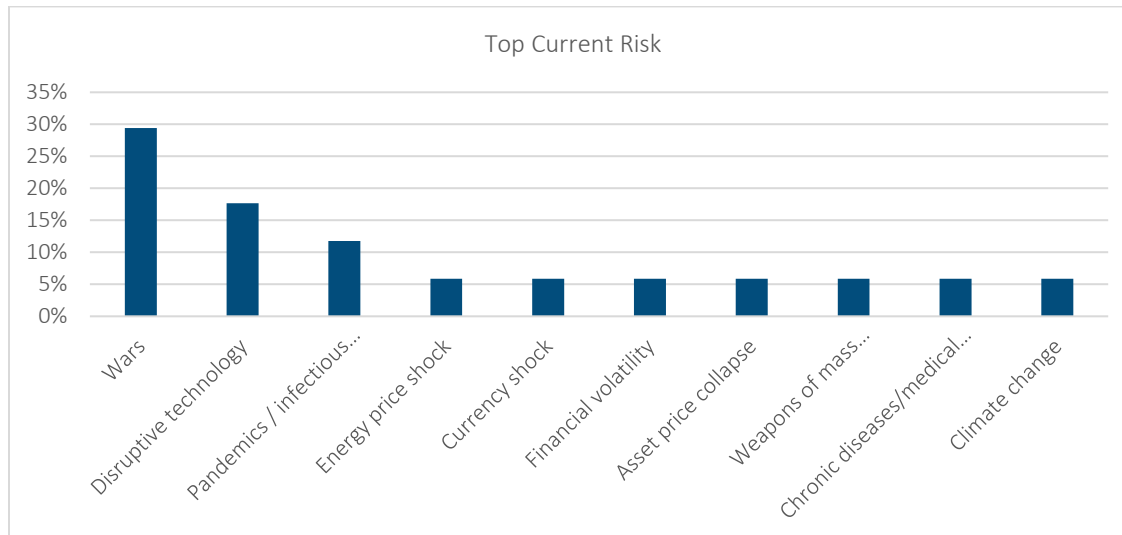


The decreased concern for the pandemic is further overshadowed by the current risk posed by war and disruptive technology. To identify the top current risks, 21 different risks were grouped into five categories: economic, environmental, geopolitical, societal, and technological. These categories were provided to the participants, and the detailed definitions can be found in the Appendix. The top current risks, as shown in Figure 2, are reported as:

- Wars (29%)
- Disruptive technology (18%)
- Pandemics/Infectious diseases (12%)
- Energy price shock (6%)
- Currency shock (6%)
- Financial volatility (6%)
- Asset price collapse (6%)
- Weapons of mass destruction (6%)
- Chronic diseases/medical delivery (6%)
- Climate change (6%)

² Xu, Xiao. (2022). "Survey of Emerging Risks in China and Greater Asia," <https://www.soa.org/resources/research-reports/2022/emerging-risks-china-greater-asia/>

Figure 2
TOP CURRENT RISK



The top current risk selection of Wars aligns with the current global landscape³, identifying it as the greatest risk to the world economy and industry. China's reopening after COVID has significantly boosted its economy, with the first quarter Gross Domestic Product (GDP) rising by 4.5%⁴, which makes economic risks less of a concern for the time being. While the pandemic itself still remains a non-negligible risk due to uncertainty, the chronic diseases that may be perceived as secondary effects are still a subject of debate within the medical research community.

On the other hand, disruptive technology, primarily attributed to OpenAI and its rapid development since late 2022, has emerged as a greater concern for respondents in the local market. ChatGPT, an artificial intelligence chatbot developed by OpenAI, was released in November 2022. Since then, numerous technology and other companies have explored various ways to integrate this generative AI advancement to improve operational efficiency.

Key Finding 2: The Intersection of Emerging Risks in Technology, Climate and Economy

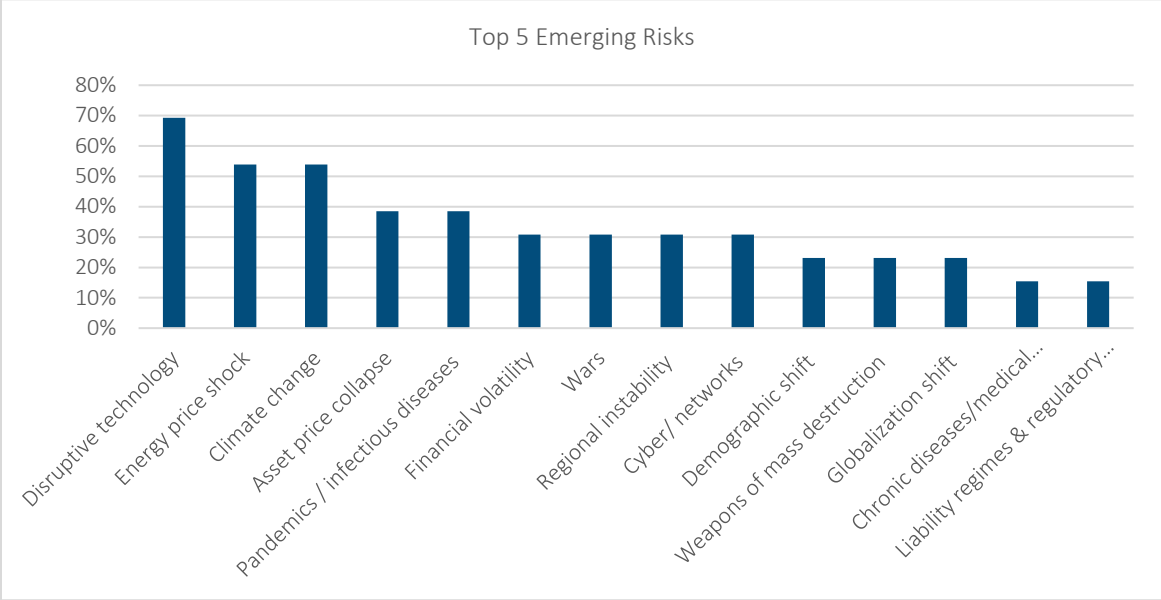
Participants were asked to rank the top five emerging risks, with emerging risks defined as those that may have an impact in the future. Figure 3 displays the top five emerging risks reported, with nearly 70% of respondents selecting disruptive technology as the top risk, primarily driven by advancements in generative AI technology. The rapid development in this sector may introduce potential threats and opportunities, which could become new unknowns in the future. Climate risks, associated with the long-term effects of climate change, remain significant challenges in the long run, a view that is consistent globally. Energy price

³ Rudolph, Max J. (2023). 16th Emerging Risk Survey. <https://www.soa.org/resources/research-reports/2023/16th-survey-emerging-risks/>

⁴ National Bureau of Statistics of China. (2023, April 19). Preliminary Accounting Results of GDP for the First Quarter of 2023. http://www.stats.gov.cn/english/PressRelease/202304/t20230419_1938796.html

shocks, asset price collapses, and financial volatility continue to be the top financial risks that may have a significant impact in the future.

Figure 3
TOP EMERGING RISK



Compared to last year, pandemics have decreased in importance, with fewer people identifying them as one of the top five emerging risks. The selection dropped from 66% to 38%. The selection of wars has also decreased, from 56% to 31%, reflecting an optimistic view that the conflict between Ukraine and Russia will cease in the near future.

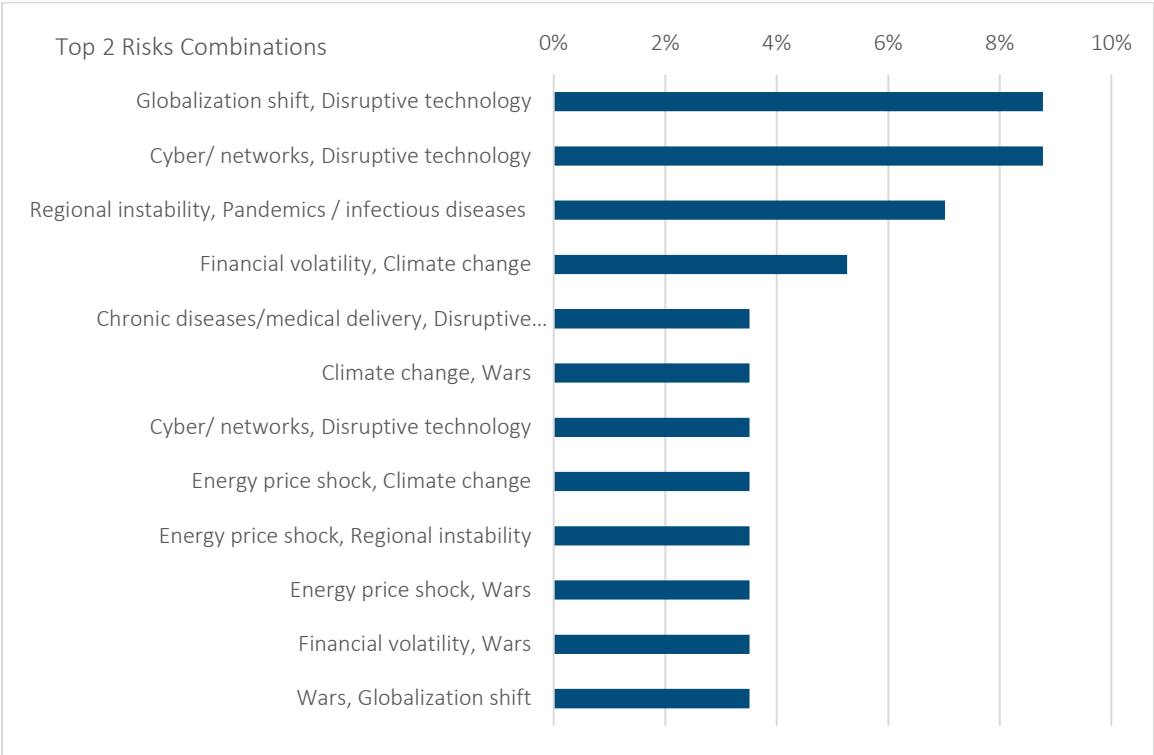
The selection of risk categories also reflects a similar view, as shown in Table 1. Compared to the 2022 view, technological risks have significantly increased from 11% to 20%. Last year's responses were mainly attributable to cyber and network concerns, while this year, disruptive technology has dominated as the top concern.

Table 1
TOP EMERGING RISK CATEGORIES

Categories	2023	2022
Economic Risks	25%	25%
Environmental Risks	14%	9%
Geopolitical Risks	23%	28%
Societal Risks	18%	27%
Technological Risks	20%	11%

Respondents were further asked to choose three pairs of top emerging risk concerns from various combinations of two risks. The top selections, as shown in Figure 4, include the globalization shift and disruptive technology, cyber/networks and disruptive technology, and regional instability and pandemics. These risk combinations emphasize disruptive technology as the highest-ranked risk consideration among respondents.

Figure 4
TOP 2 EMERGING RISKS COMBINATIONS



Over 50% of respondents identified at least one risk combination involving disruptive technology, with the most common pairings being globalization shift, cyber/networks, and chronic diseases/medical delivery. This highlights the perception that technological advancements are not only a major risk category in themselves but also have the potential to significantly impact the overall economy and society. Table 2 further illustrates the top emerging risks selected in the two-risk combinations, which considerably overlap with the top emerging risks identified in Figure 3. The observation also highlights the belief in a correlation effect, where the impact of one risk is interconnected with another.

Table 2
TOP EMERGING RISKS IN COMBINATION

Emerging Risks	Selection Rate
Disruptive technology	15%
Financial volatility	9%
Climate change	9%
Wars	9%
Energy price shock	8%
Pandemics / infectious diseases	8%

Additionally, climate change, wars, financial volatility, and energy price shocks are commonly chosen risk combinations. War is a geopolitical risk, and its carbon footprint may further intensify climate change. Conversely, climate change might render some previously habitable places uninhabitable, increasing competition for necessary resources—a two-way effect. The associated impact on the economy includes potential increases in energy prices and financial volatility.

Respondents also mentioned that changes in societal structures and global ideologies can pose potential risks that are difficult to identify and measure. Although these changes may occur gradually, they can ultimately lead to significant economic risks in the long run.

Additionally, the actuaries were asked to identify key risks that do not impact the insurance industry, and their responses are summarized in Table 3. The top risks chosen primarily involve geopolitical and societal risks, which are considered either non-insurable or having no direct impact on the insurance business. This reveals that technological, environmental, and economic risks continue to be the primary concerns for insurance professionals, as emphasized in the section heading.

Table 3
EMERGING RISKS NOT IMPACT INSURANCE INDUSTRY

Emerging Risks	Selection Rate
Terrorism	44%
Transnational crime and corruption	44%
Regional instability	22%
Weapons of mass destruction	22%
Demographic shift	22%

Key Finding 3: Steady Growth in Enterprise Risk Management (ERM) Practices

Participants were asked about their company's practices regarding emerging risks, which is consistent with the last year survey results as shown in Table 4. Around 40% of the respondents expressed that they formally identify emerging risks, while approximately 30% reported having a formal process to quantify and manage some of the risks. About 44% of respondents use leading indicators selected to measure changing likelihoods for at least some risks and rely on these indicators to plan risk management strategies.

Table 4
EMERGING RISKS MANAGEMENT PRACTICES

Emerging Risk Management	2023	2022
In your work, do you formally identify emerging risks?	40%	35%
Once an emerging risk is identified, do you have a process to measure, monitor, and/or mitigate the risk?	30%	44%
Once an emerging risk is identified, do you select leading indicators to measure changing likelihoods?	44%	56%
If you identify leading indicators of emerging risks, do you have criteria for when to take action to mitigate (or accept) the risk?	44%	38%

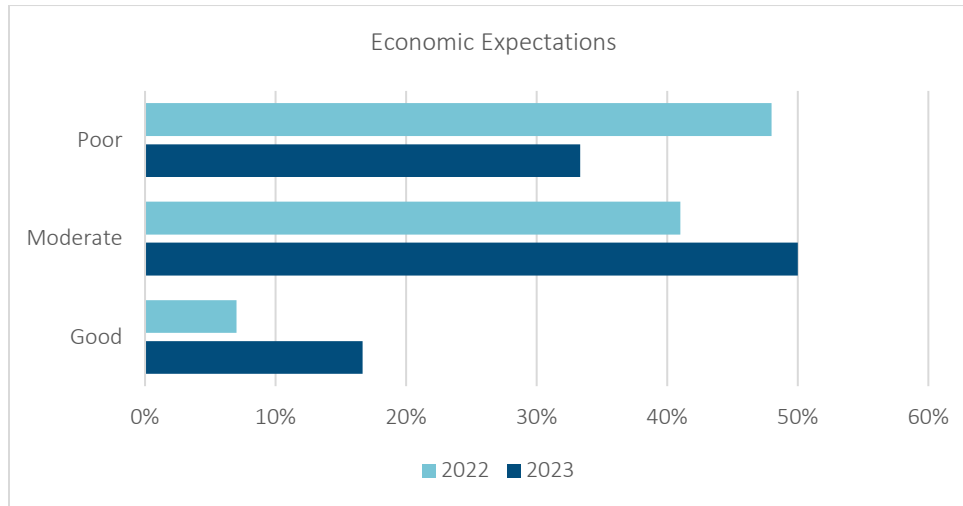
Some practical examples of this include policy adjustments related to COVID-19 pandemic quarantine situations and value adjustments associated with disruptive technology. In terms of selecting risk metrics, some companies address climate change through carbon footprint and carbon emissions measurements.

About 57% of respondents reported that Enterprise Risk Management (ERM) has a positive impact on company operations, and implementing ERM improves the company's risk-adjusted returns. This percentage has significantly increased from the previous year when only 39% of people held this view. This reinforces the value added by ERM practices and highlights the increasing importance of ERM amid the global economic outlook.

Key Finding 4: Enhanced Economic Outlook for Asia-Pacific Markets

As the majority of Asia-Pacific markets reopen following the COVID-19 pandemic, the overall economic outlook has improved, and the view of positive economic expectations has increased to 17% from 7%. As illustrated in Figure 5, the dominant responses in 2022 were poor (48%), whereas in 2023, the primary economic expectations are moderate, with a 50% response rate. There are no responses indicating strong economic expectations, which aligns with the global economic outlook. Overall, it is widely anticipated that the general economic conditions in the Asian-Pacific markets will see improvements in 2023.

Figure 5
ECONOMIC EXPECTATIONS



Regarding the ERM staffing and funding activities, some risk managers report an increased level of both staff recruitment and activities funding, with the further growing trend in 2023.

- 50% report an increased level of ERM-focused activities in their organization in 2022.
- 33% anticipate an increased level of ERM-focused activities in 2023 relative to 2022.
- 25% anticipate an increased level of funding dedicated to ERM-focused activities in 2023 relative to 2022.

Over half of the respondents mentioned that the ERM function has direct voting rights on strategic opportunities.

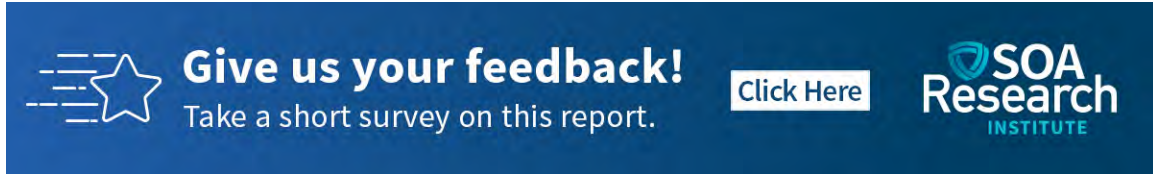
Conclusion: ERM Outlook in Asia-Pacific Markets



A majority of respondents (83%) in the ERM survey are new participants based in Mainland China and Hong Kong, primarily from the Property/Casualty Insurance sector. This contrasts with last year's survey, where risk perspectives were predominantly represented by life insurance practices.

Compared to the ERM survey conducted in late 2022, the generative AI trend has significantly influenced risk managers' considerations. Although the ongoing Ukraine war is currently their top risk concern, the financial market's sentiment has stabilized compared to the panic and anxiety during the outbreak in last year's survey.

As we gradually enter the post-COVID-19 era and Asia-Pacific markets reopen, pandemic risks have become less concerning, and the economic outlook has significantly improved. However, chronic conditions related to the pandemic remain major risks for life and health actuaries.

Disruptive technologies, which may include advancements in AI and medical breakthroughs, have the potential to redefine the future and significantly impact economic, environmental, geopolitical, and societal risks. The risk survey offers an opportunity to examine risk perspectives and the interconnected impact of various risks. Amid volatile financial market conditions, ERM has become increasingly important.



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Appendix A: Survey Framework

Economic Risks

Energy price shock 能源价格冲击
 Currency shock 货币冲击
 Regulatory risk 监管风险
 Asset price collapse 资产价格崩溃
 Financial volatility 金融波动

Environmental Risks

Climate change 气候变化
 Loss of freshwater services 水资源短缺
 Natural catastrophe: tropical storms
 自然灾害：热带风暴
 Natural catastrophe: earthquakes
 自然灾害：地震
 Natural catastrophe: severe weather
 (except tropical storms) 自然灾害：恶劣天气
 (热带风暴除外)

Geopolitical Risks

Terrorism 恐怖主义
 Weapons of mass destruction 大规模杀伤性武器
 Wars (including civil wars) 战争（包括内战）
 Transnational crime and corruption 跨国犯罪与腐败
 Globalization shift 全球化转移

Societal Risks

Pandemics / infectious diseases 大流行病/传染病
 Chronic diseases/medical delivery 慢性病/医疗交付
 Demographic shift 人口转移
 Liability regimes & regulatory framework
 责任制度与监管框架

Technological Risks

Cyber/ networks 网络
 Disruptive technology 突破性技术

About The Society of Actuaries Research Institute

Serving as the research arm of the Society of Actuaries (SOA), the SOA Research Institute provides objective, data-driven research bringing together tried and true practices and future-focused approaches to address societal challenges and your business needs. The Institute provides trusted knowledge, extensive experience and new technologies to help effectively identify, predict and manage risks.

Representing the thousands of actuaries who help conduct critical research, the SOA Research Institute provides clarity and solutions on risks and societal challenges. The Institute connects actuaries, academics, employers, the insurance industry, regulators, research partners, foundations and research institutions, sponsors and non-governmental organizations, building an effective network which provides support, knowledge and expertise regarding the management of risk to benefit the industry and the public.

Managed by experienced actuaries and research experts from a broad range of industries, the SOA Research Institute creates, funds, develops and distributes research to elevate actuaries as leaders in measuring and managing risk. These efforts include studies, essay collections, webcasts, research papers, survey reports, and original research on topics impacting society.

Harnessing its peer-reviewed research, leading-edge technologies, new data tools and innovative practices, the Institute seeks to understand the underlying causes of risk and the possible outcomes. The Institute develops objective research spanning a variety of topics with its [strategic research programs](#): aging and retirement; actuarial innovation and technology; mortality and longevity; diversity, equity and inclusion; health care cost trends; and catastrophe and climate risk. The Institute has a large volume of [topical research available](#), including an expanding collection of international and market-specific research, experience studies, models and timely research.

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