17th Annual Survey of Emerging Risks Key Findings

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17th Annual Survey of Emerging Risks

Key Findings

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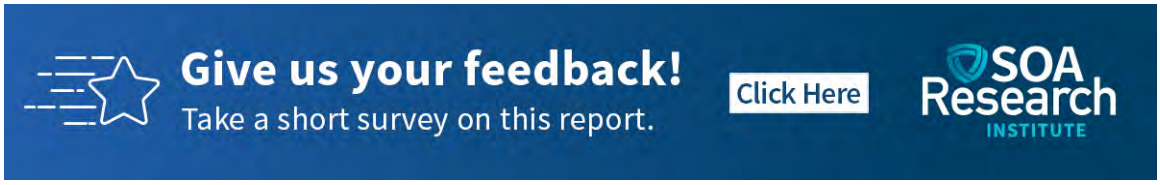

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Introduction

The *17th Survey of Emerging Risks* compiles trends about risks that extend longer than a time horizon used for the normal planning cycle, using the foresight of risk managers to identify relative changes to responses across consistent topics. It is sponsored by the Casualty Actuarial Society (CAS) and the Society of Actuaries (SOA). Questions are both quantitative and qualitative, maintaining response options and showing how risk management practices are evolving. The survey results, especially the comments, provide risk managers a way to network with peers.

Respondents were asked to choose their top current risk, top five emerging risks, overall top emerging risk, and risk combinations from 23 risks allocated to five categories.[1] Results have been trended since the initial survey in 2008. A user's guide was produced in 2022 that walks the reader through the data and shows how it can be used to incorporate foresight into risk analysis.[2] The survey went on to ask questions about practices related to enterprise risk management, regime change[3], staffing challenges, and other current topics. Open-ended qualitative questions were used to directly ask current thoughts about risk management practices.

The survey, completed in November 2023, included 133 participants. The online survey respondents were primarily based in North America (81%), with additional responses from Europe, South America, Asia, Africa, the Middle East, and the Caribbean/Bermuda.

Surveys were tied to their specific time and environment, with recency bias (a belief that recent events are more likely to reoccur) always present. This survey occurred in the fourth year of the COVID-19 pandemic, after Chinese COVID-19 lockdowns were lifted, following the Hamas-Israeli conflict preceding the crisis in Gaza, continuation of the Russia-Ukraine war, and prior to the climate conference in Dubai (COP28). Energy supply concerns weakened, and inflation fell back closer to normal levels as supply constraints loosened. The rapid rise of interest rates created a bank crisis early in 2023 that stalled the quantitative tightening process for several months. Natural disasters, made worse by climate change, occurred on a regular basis around the world. Turkey suffered a major earthquake. Severe storms recorded the highest levels of inflation-adjusted damage since at least 1980.

The reader should remember that choices of one risk over another are relative and do not necessarily mean that one risk has dissipated or increased, just that the chosen risk(s) were considered less or more important than the other choices.

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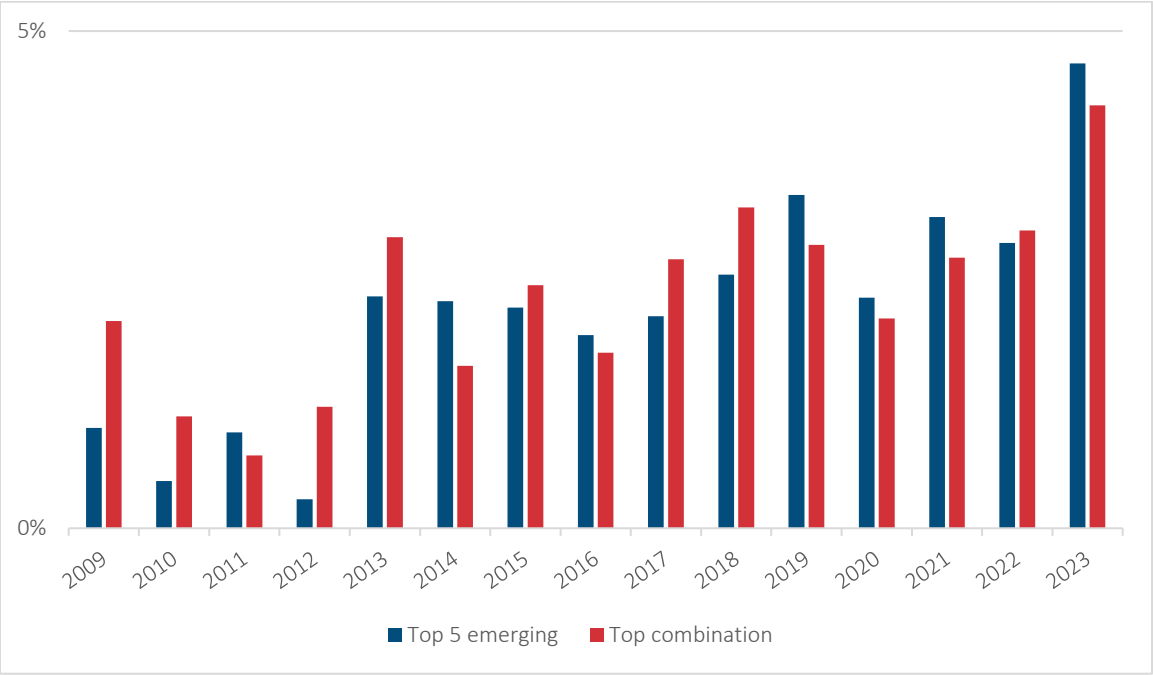
[1] A glossary of risks and definitions are provided to respondents and are replicated in appendix A.
[2] Rudolph, Max J., Emerging Risks Survey: Guide for Use. August 2022. https://www.soa.org/resources/research-reports/2022/15th-survey-emerging-risks/
[3] The survey provided an introductory paragraph prior to the question about regime change. *Many commentators are suggesting that today's world is changing quickly and that we are entering a new regime, i.e., a period where previous methods of analyzing risks and returns need to be rebuilt from first principles. Rules of thumb would no longer be effective and historical data is not predictive of future experience (unknown knowns) with sufficient accuracy to maintain the integrity and stability of pricing and projections.*

While the Pandemics/infectious diseases risk continued to revert to levels recorded prior to COVID-19, Natural catastrophes: severe weather (except tropical storms) surged as both an emerging risk and risk in combination with others. As seen in figure 1, risk managers who selected this risk for these questions hit new highs. While not a top five risk for any of the questions tracked in the current survey, risk managers have clearly identified it as a risk they are watching.

Figure 1

NATURAL CATASTROPHE: SEVERE WEATHER (EXCEPT TROPICAL STORMS) – HISTORICAL RESULTS, 2009–2023



This report presents the major quantitative findings from the survey. The full report covering the *17th Survey of Emerging Risks*, with complete updates and analysis of open-ended questions, will be released later in 2024.

Key Finding 1: Risk Manager Concerns Focus on Wars, Climate and Disruptive Technology Risks

Survey questions focused on four ways of looking at risk:

- Top current risk (participants vote for one);
- Top five emerging risks (vote for five);
- Top emerging risk (vote for one); and
- Top emerging risk combinations (vote for three combinations of two risks).

The 23 risks were presented to the participants, shown below and with definitions in appendix A, and they could add an alternative risk, except for the combination questions. These risks are grouped into five categories: economic, environmental, geopolitical, societal, and technological.

Economic – Energy price shock, Currency shock, Emergent nation destabilization, Asset price shock, Financial volatility

Environmental – Climate change, Loss of freshwater services, Natural catastrophe: tropical storms, Natural catastrophe: earthquakes, Natural catastrophe: severe weather (except tropical storms)

Geopolitical – Terrorism, Weapons of mass destruction, Wars (including civil wars), Failed and failing states, Transnational crime and corruption, Globalization shift, Regional instability

Societal – Pandemics/infectious diseases, Chronic diseases/medical delivery, Demographic shift, Liability regimes & regulatory framework

Technological – Cyber/networks, Disruptive technology

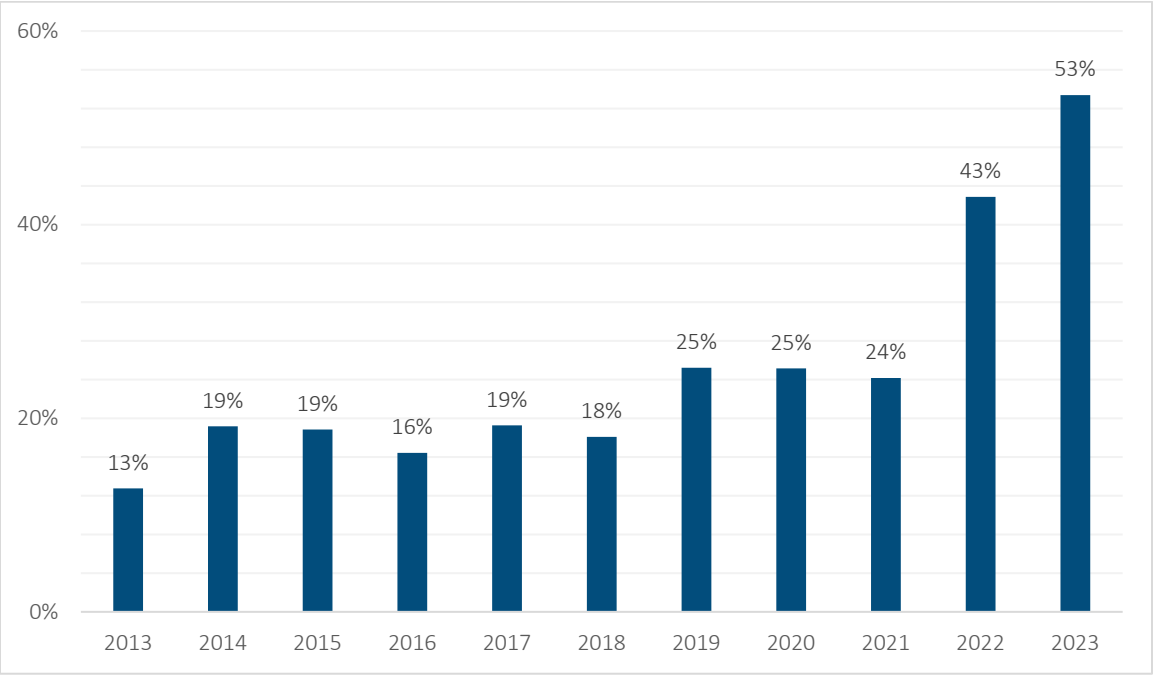
The year 2023 continued trends of severe storms and hail, heat waves and drought, a weakened but continuing respiratory infection pandemic, and geopolitical concerns within and between countries. The Climate change risk continued to dominate across all questions; ranked first for top five emerging risks, overall top emerging risk and top combination risk, and third for current risk.

Current risks tend to be impacted by recency bias for new highs and are potential contrarian indicators for new lows. The geopolitical category, led by Wars (including civil wars), reached its highest level and the Societal category hit a new low as the Pandemic/infectious diseases risk mean reverted following a surge due to COVID-19. The Asset price collapse risk also reached a new low. These results were similar across questions. For the top five emerging risks question, Demographic shift reached a new high. Responding to the overall top emerging risk, new lows were recorded for Weapons of mass destruction and Cyber/networks. A new low was reached for Failed and failing states when asked about risks in combination.

A resurgence of an old conflict in the Middle East, along with continuing wars, including Ukraine and sub-Saharan Africa, along with other building geopolitical tensions, caused Wars (including civil wars) to increase by another 10% of respondents as shown in figure 2 for the top five emerging risks question. It had similar increases for top current and combination risks. Responses doubled (from a then record 6% to 12%) as a top emerging risk, and it is now in the top three responses for all four questions.[4]

Figure 2

WARS (INCLUDING CIVIL WARS) – TOP FIVE EMERGING RISKS, 2013–2023

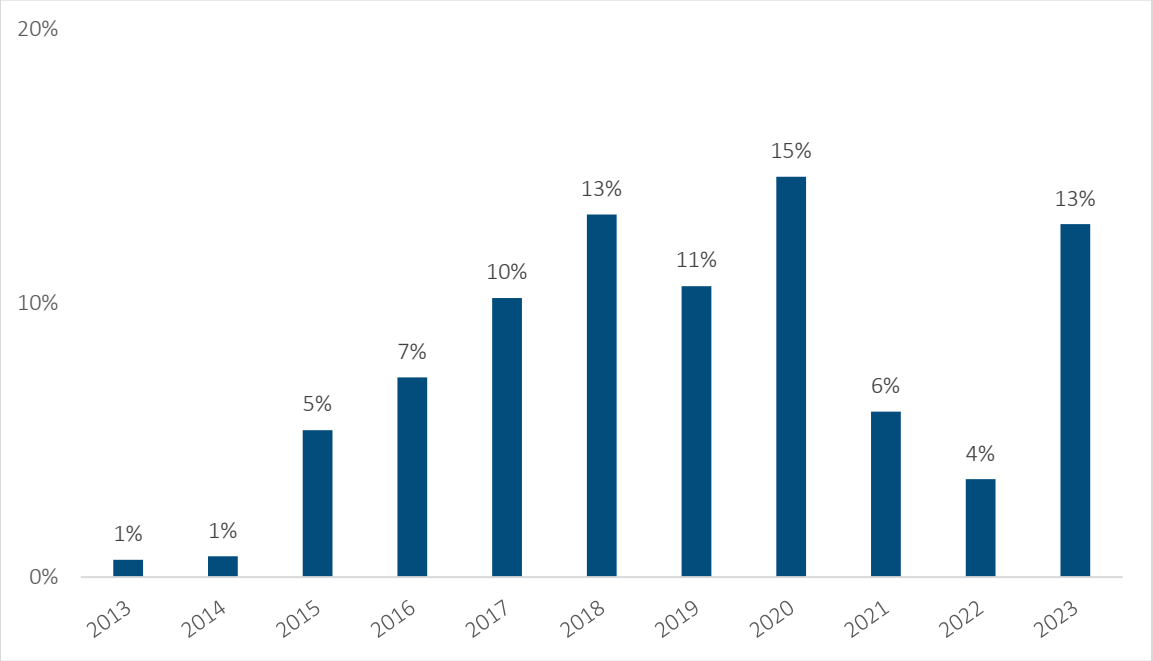


[4] Percentages for the top five emerging risks are based on the number of respondents, so they add up to more than 100%. Other results, except for rounding, total 100%. All values are absolute, i.e., none of the data reflects a percentage change from a previous result. For example, results in figure 3 show an increase from 43% to 53%, showing both data points, rather than the relative increase of 23% (53/43-100%).

The Disruptive technology risk rebounded in 2023 and is now in the top five for all questions. It currently ranks third for the top five emerging risks question. The resurgence is likely due to the release of various artificial intelligence software that is free to use by anyone. It ranks second to Climate change as the overall top emerging risk, with historical results shown in figure 3.

Figure 3

DISRUPTIVE TECHNOLOGY – TOP EMERGING RISK, 2013–2023



The top two choices were stable for the top five emerging risks question (the survey's primary metric), but choices three, four and five were shuffled between risks typically ranked highly (see table 1).

Table 1

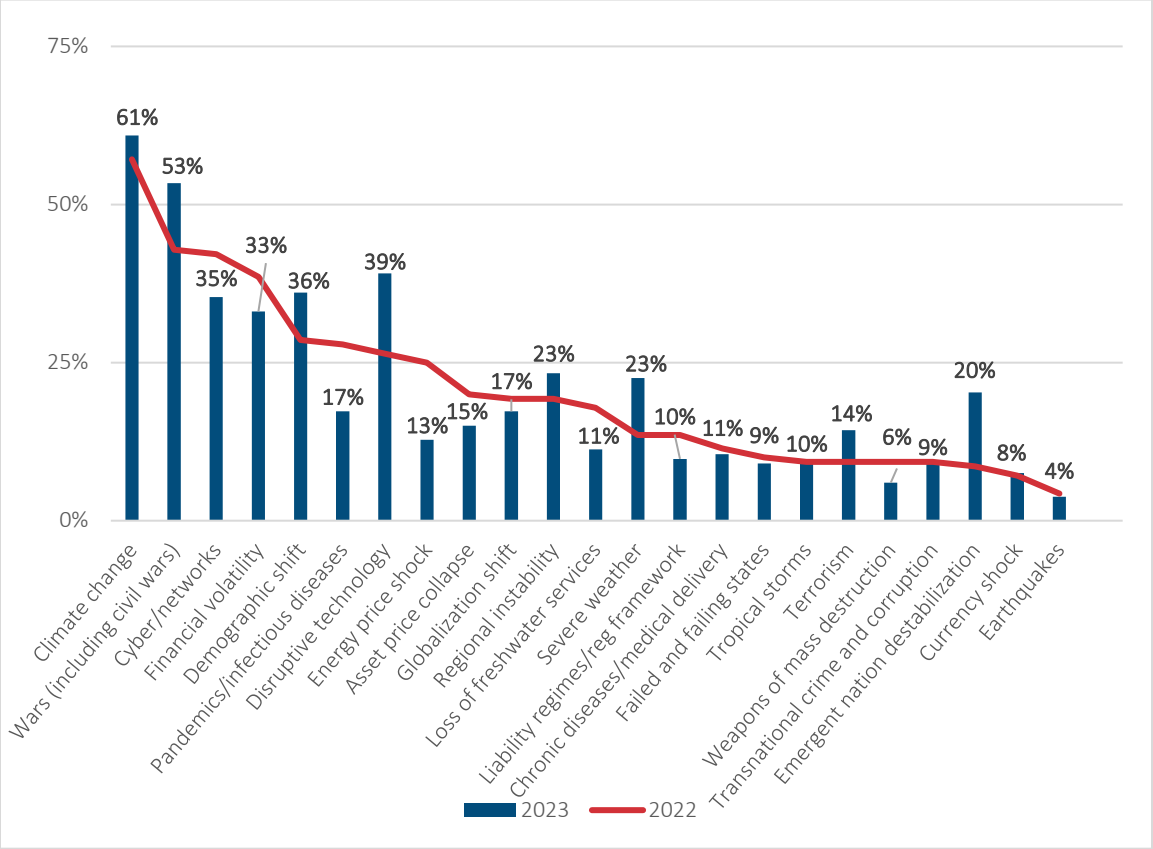
TOP FIVE EMERGING RISKS, 2020–2023

	2023	2022	2021	2020
1	Climate change	Climate change	Climate change	Climate change
2	Wars (including civil wars)	Wars (including civil wars)	Cyber/networks	Cyber/networks
3	Disruptive technology	Cyber/networks	Pandemics/infectious diseases	Pandemics/infectious diseases
4	Demographic shift	Financial volatility	Disruptive technology	Disruptive technology
5	Cyber/networks	Demographic shift	Financial volatility	Financial volatility

Results for the top five emerging risks in figure 4 have been sorted based on the results for the same question in the previous year's survey. Labels reflect the 2023 results. Several risks saw double digit increases, namely Disruptive technologies, Emergent nation destabilization, and Wars (including civil wars). These were offset by double digit decreases in Energy price shock and Pandemics/infectious diseases.

Figure 4

YEAR-OVER-YEAR EMERGING RISKS (UP TO FIVE RISKS CHOSEN PER SURVEY), 2022–23



Among the other questions, the top five risks (including ties) chosen by respondents in the current survey are shown as follows in tables 2–4:

Table 2
TOP CURRENT RISK 2023

Rank	Risk	Rate
1	Wars (including civil wars)	21%
2	Financial volatility	18%
3	Climate change	13%
4	Emergent nation destabilization	7%
5	Disruptive technology	5%
5	Cyber/networks	5%

Table 3
TOP EMERGING RISK 2023

Rank	Risk	Rate
1	Climate change	27%
2	Disruptive technology	13%
3	Wars (including civil wars)	12%
4	Financial volatility	11%
5	Demographic shift	8%

Respondents were asked to provide three combinations of two risks – the ranking shows which risks were chosen most.

Table 4
TOP RISK COMBINATIONS 2023

Rank	Risk	Rate
1	Climate change	13%
2	Wars (including civil wars)	11%
3	Financial volatility	11%
4	Cyber/networks	6%
5	Disruptive technology	6%

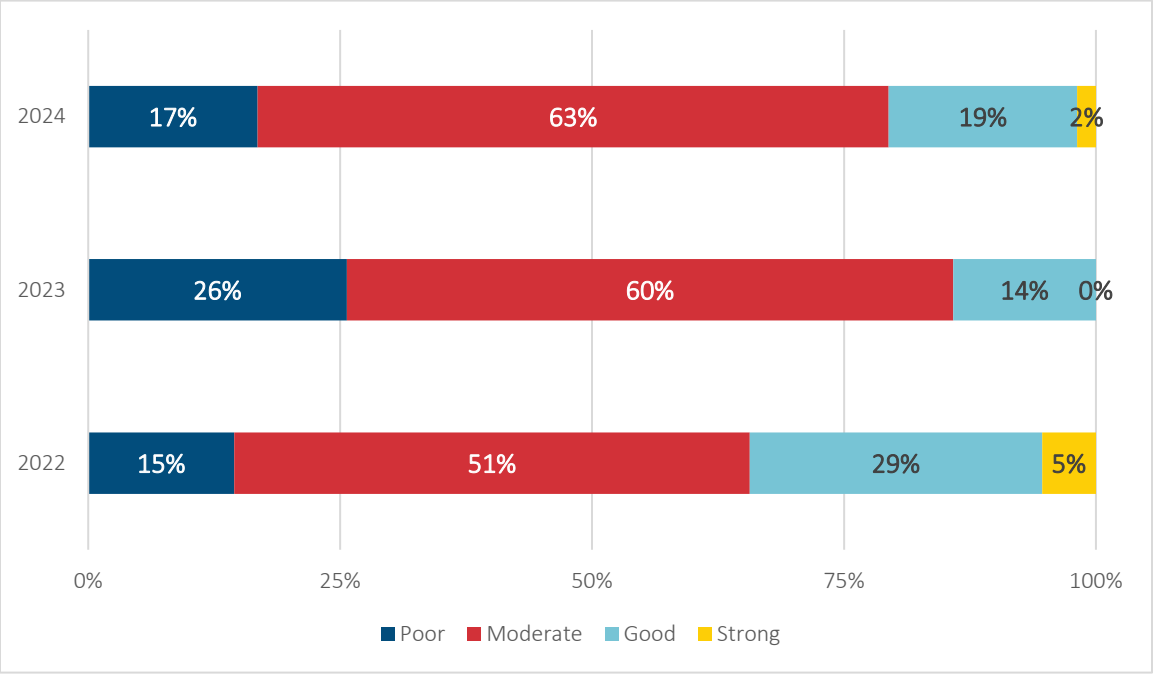
Key Finding 2: Global Economic Outlook – Improving 2024 Expectations

The U.S. Federal Reserve led a global central bank initiative to raise short-term interest rates by tightening monetary policy. This led, in early 2023, to a flurry of challenges for some banks. At that point, monetary policy temporarily loosened to provide liquidity and the immediate crisis passed. Despite concerns from this and other potential issues in the current environment, global economic expectations have improved from recent surveys. The 2022 survey reflected a period with access to a COVID-19 vaccine, relatively high inflation, crypto volatility, a European war entering its first winter, and active central banks, all set against extreme weather events. The current survey was conducted in November 2023, a period that reflects the recent Israeli-Hamas conflict preceding the crisis in Gaza, a major earthquake in Turkey early in the year, reduced inflation, heightened geopolitical tensions both between and within countries, and continuing extreme weather events.

Global economic expectations are higher for 2024, with more respondents having positive views compared to the previous survey. Only 17% (versus 26% previously) of respondents expect the 2024 global economy to be poor (see figure 5) and 21% (versus 14% in the previous survey) have expectations of good or strong conditions. Similar results are seen elsewhere in the survey, with fewer concerns about risks like Financial volatility and Asset price shock.

Figure 5

GLOBAL ECONOMIC EXPECTATIONS

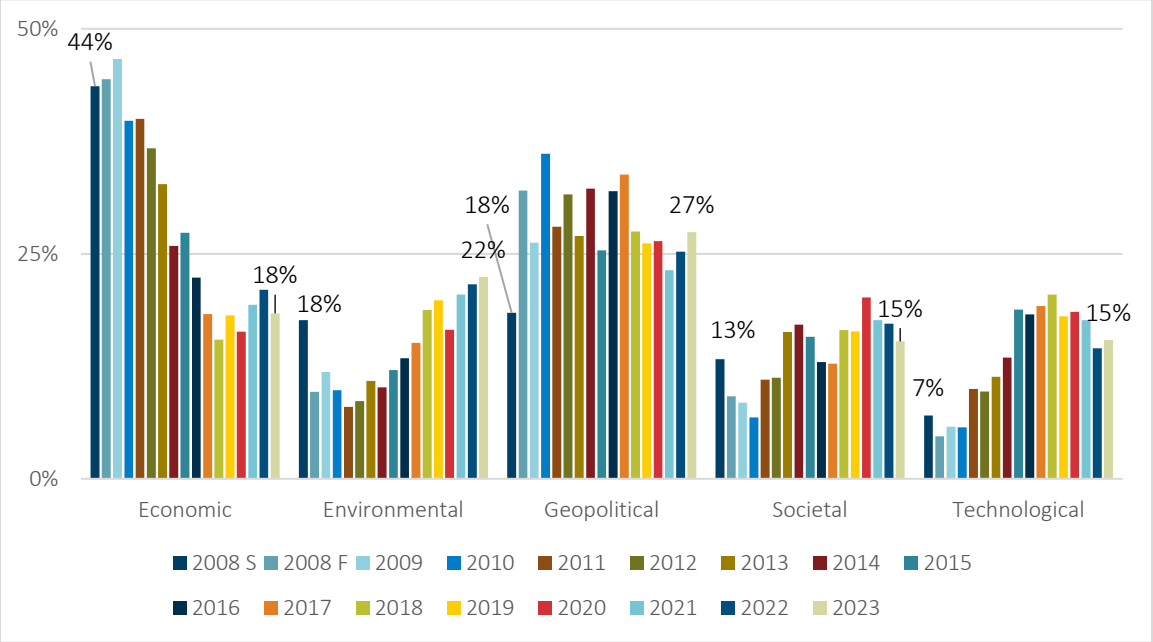


Key Finding 3: Geopolitical Risks Still Lead in Total, with Environmental Risks Trending Up

For the top five emerging risks in this year's survey, the geopolitical and environmental categories rose at the expense of economic, societal, and technological risks. This is the third year for societal risks to fall since the 2020 peak of Pandemic/infectious diseases, and environmental risks (mainly Climate change) have risen over the same period (see figure 6).[5] Geopolitical remains the top ranked category. Despite a rise in Emergent nation destabilization, the economic category fell, and the two technological risks have recently been volatile while falling off survey highs. Including all the data points in one place helps to put survey trends into perspective. For example, the geopolitical category prior to 2016 peaked with each U.S. election, but has now become more complex. The economic risks dominated right after the Great Financial Crisis but then fell, rebounding off their lows since 2018.

Figure 6

EMERGING RISKS BY CATEGORY (UP TO FIVE RISKS CHOSEN PER SURVEY)



[5] The current survey is the 17th iteration. The survey was completed twice in 2008 (spring, fall) and then annually thereafter in the fall.

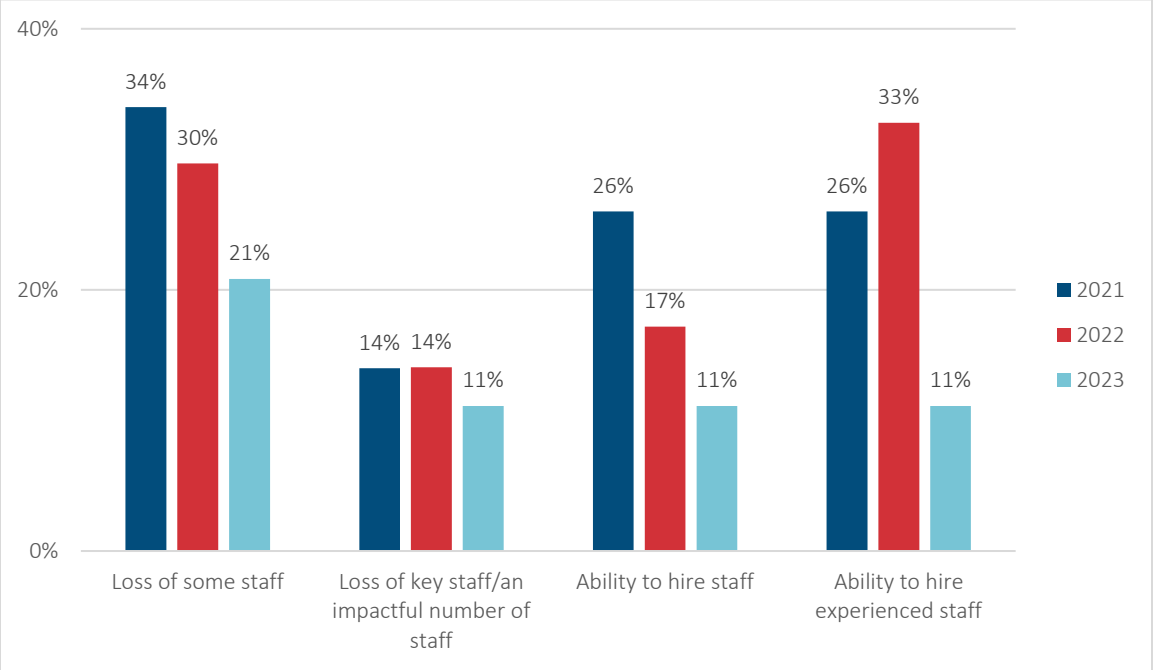
Key Finding 4: The Great Resignation – Improving but not back to normal yet

With many employees returning to an office setting at least part time, the job market for professionals is not as difficult as it was during the height of the pandemic. The Great Resignation, where an employee resigns and may take a break from employment as they think about work-life balance, seems to be fading as government stimulus is withdrawn. For the third time, the survey asked employees at insurance companies how staffing issues impacted their enterprise risk management team. The survey found that 63% of respondents were impacted by the issue in some way, and some by more than one.

It's not clear what these responses would have been prior to the pandemic, but the situation for insurers seems to be improving. Only 21% (down from a peak of 34%) reported a loss of some staff, as shown in figure 7. Respondents noted that it was easier to hire staff this year relative to last (11% versus peak of 26% found it a challenge), while hiring experienced staff was not a challenge for as many (11% versus previous 33%). The interactions between the stressed commercial real estate market and possibility of a recession, job market for risk managers, pandemics, and extreme weather events (among others) makes this an interesting ongoing topic.

Figure 7

THE GREAT RESIGNATION – DIFFICULTIES FOR ERM FUNCTION, 2021–23



Appendix A: Glossary of 23 Risks across Five Categories, Fall 2023

ECONOMIC RISKS

- Energy price shock—Price instability and extremes of energy prices.
- Currency shock—Material disruptions to currency equilibrium, including central bank devaluations (currency wars), de-dollarization, and digital currencies.
- Emergent nation destabilization—Fast growing country's economic growth slows, potentially as a result of protectionism, demographics, internal politics, and/or economic difficulties.
- Asset price shock—Price instability and extremes of assets such as housing and equities.
- Financial volatility—Price instability and extremes of sectors, including commodities, equities, or interest rates.

ENVIRONMENTAL RISKS

- Climate change—Change in climate patterns generates both extreme events and changes in trend, impacting infrastructure, agricultural yields, soil degradation, ocean currents, ecosystem biodiversity (e.g., insects, shellfish), and human lives. Drivers of physical and transition risks include, but are not limited to, space weather, pollution, and release of greenhouse gases.
- Loss of freshwater services—Water shortages impact agriculture, businesses, and human lives. Drivers include, but are not limited to, climate change and human influence (e.g., pollution, aquifer depletion).
- Natural catastrophe: tropical storms—Hurricanes, typhoons, and cyclones lead to disruption, catastrophic economic losses, and/or high human loss of life.
- Natural catastrophe: earthquakes—Strong seismic/volcanic activity leads to disruption, catastrophic economic losses, and/or high human loss of life.
- Natural catastrophe: severe weather—Meteorological phenomena lead to disruption, catastrophic economic losses, and/or high human loss of life. Includes inland flooding, tornados, thunderstorms, heatwaves, drought, wildfires, high winds, snowstorms, and dust storms.

GEOPOLITICAL RISKS

- Terrorism—Attacks lead to disruption, catastrophic economic losses, and/or high human loss of life.
- Weapons of mass destruction—Nuclear, biological, radiological, or chemical technologies lead to disruption, catastrophic economic losses, and/or high human loss of life.
- Wars (including civil wars)—Wars erupt between or within countries, leading to disruption, catastrophic economic losses, and/or high human loss of life.
- Failed and failing states—The trend of a widening gap between order and disorder or widening social rifts.
- Transnational crime and corruption—Corruption is endemic. Non-government entities successfully penetrate the global economy.
- Globalization shift—Preference changes to imports and immigration. Changes include populism, democracy, socialism, communism, religiosity, and political uncertainty. Changes in use of technological platforms allow misinformation and disinformation to spread. Countries retrench and become more nationalistic and protectionist or open up their economies to outsiders. Inequality, privacy, and food insecurity challenge the concepts of fairness and egalitarianism.
- Regional instability—Unstable regions cause widespread political and other crises.

SOCIETAL RISKS

- Pandemics/infectious diseases—A pandemic emerges with high mortality/incidence of diseases such as HIV/AIDS, Ebola, coronavirus, or influenza. Antimicrobial resistance becomes common.
- Chronic diseases/medical delivery—Diseases such as obesity, diabetes, cardiovascular, and substance abuse become widespread, or treatments appear. Material changes to medical delivery or financing.
- Demographic shift—Evolving populations size and mix (e.g., age, size, race, fertility rate, mortality rate, migration, skills, workplace environment) drive changes in economic growth and levels of government intervention.
- Liability regimes/regulatory framework—Costs increase faster than GDP, with increases in the spread and size of litigiousness (e.g., social inflation, climate litigation, systemic liabilities due to chemicals, microplastics or hazardous waste) and speed of regulatory revisions. Material changes in tax policy.

TECHNOLOGICAL RISKS

- Cyber/networks—A major disruption in the availability, reliability and resilience of critical information infrastructure caused by cyber risks, terrorist attacks, or technical failure. Results are felt in supply chains, major infrastructure: power distribution, water supply, transportation, telecommunication, emergency services, and/or finance.
- Disruptive technology—Unintended consequences of technology lead to abrupt change (e.g., artificial intelligence, drones, self-driving cars, additive manufacturing, internet of things, nanoparticles). Models become more complex but less descriptive over long time horizons.