



13th Annual Survey of Emerging Risks

Key Findings



March 2020



13th Annual Survey of Emerging Risks

Key Findings

AUTHOR

Max J. Rudolph, FSA, CFA, CERA, MAAA
Rudolph Financial Consulting, LLC

SPONSOR

Canadian Institute of Actuaries
Casualty Actuarial Society
Society of Actuaries

Caveat and Disclaimer

The opinions expressed and conclusions reached by the author are his own and do not represent any official position or opinion of the Canadian Institute of Actuaries, Casualty Actuarial Society, and the Society of Actuaries or their members. The Canadian Institute of Actuaries, Casualty Actuarial Society, and the Society of Actuaries make no representation or warranty to the accuracy of the information.

CONTENTS

Introduction.....	4
Key Finding 1: Climate Concerns Dominate While Cyber Fades	5
Key Finding 2: Global Economic Outlook Good for 2020	10
Key Finding 3: Geopolitical Risks Lead among Categories, Environmental Risks Trend Up	11
Key Finding 4: Undervalued Risks.....	12

13th Annual Survey of Emerging Risks

Key Findings

Introduction

The *13th Survey of Emerging Risks* tracks risk-manager thoughts on the topic beyond the normal planning cycle, trending them over time and seeking strategic implications. It is sponsored by the Canadian Institute of Actuaries (CIA), the Casualty Actuarial Society (CAS), and the Society of Actuaries (SOA). Questions are both quantitative and qualitative, enabling consistency from year to year and allowing evolving risk management practices to be shared. The survey responses, especially the comments, give risk managers a way to network anonymously with peers and share the new ways they are thinking about risk.

The survey, completed in November 2019 and well before the coronavirus outbreak, included 232 participants. The anonymous online survey was primarily North America-based (79%), with additional responses from Europe, Asia, Australia/Pacific, South America, Africa, Caribbean/Bermuda, and the Middle East.

This report presents the major findings from the survey. The full report covering the *13th Survey of Emerging Risks*, with complete updates and analysis of open-ended questions, will be released later in the year.

Key Finding 1: Climate Concerns Dominate While Cyber Fades

The recurring survey questions focus 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).

A set of 23 risks is presented to the participants, and they can add additional risks except for the combination questions. These are grouped into five categories: economic, environmental, geopolitical, societal, and technological.

In comparing this year's results to those of prior years, climate change risk now dominates the results, with a clean sweep of each category. This risk became the top response in top five emerging risks, increasing to 54% as shown in figure 1. It was also the highest response for current risk (16%), top emerging risk (27%), and combination risk (12% of all the risks chosen, in combination with another risk).¹ Cyber/networks risk, now past its peak, has fallen to the fourth most popular choice for current risk (8%), and is second among top five emerging risks (51%, as shown in figure 2), third in top emerging risk (10%, also behind Disruptive technology at 11%), and second in combination risk (8%).

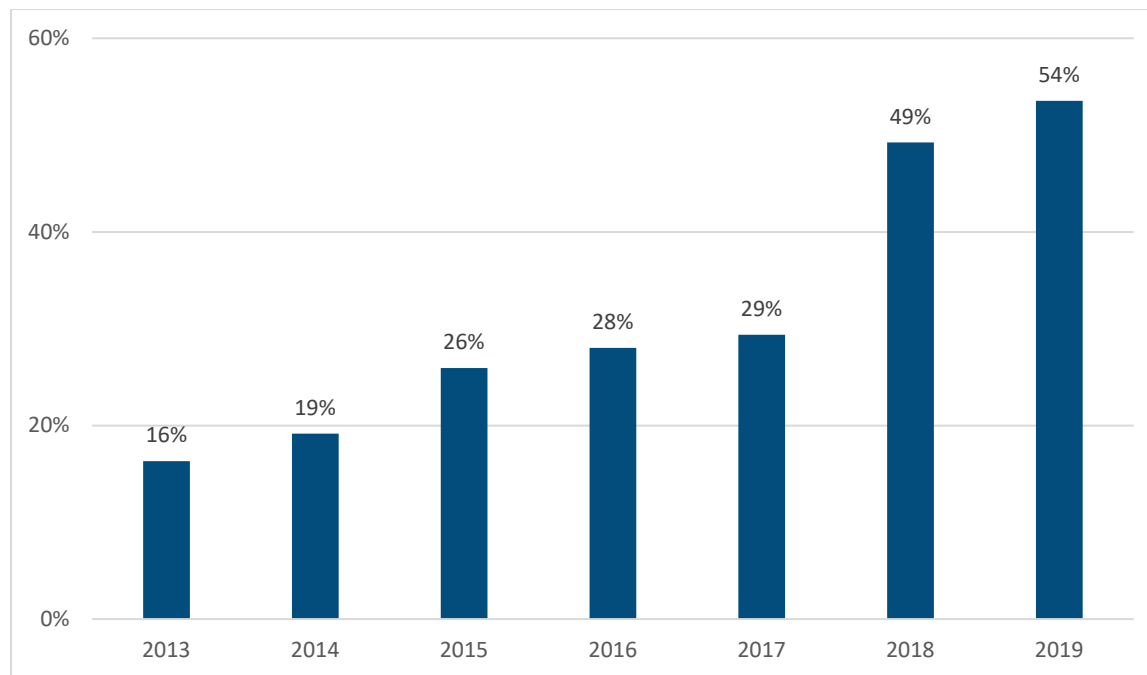
The top current risk is Climate change (16%), followed by Financial volatility (10%), Asset price collapse (9%), Cyber/networks (8%), and Disruptive technology (6%). Respondents have spread out the top five current risks across the environmental, economic and technological categories.

Extreme weather events, melting ice cover and the UN Climate Change Summit in Madrid kept climate change continuously in the news in 2019. Climate change showed notable increases in votes in the current risk category, from 12% to 16%, and as the top emerging risk, from 22% to 27%. Over one in four respondents now chooses it as the top emerging risk, the highest proportion since 2012, when Financial volatility was chosen by 28% of respondents.

¹ 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%.

Figure 1

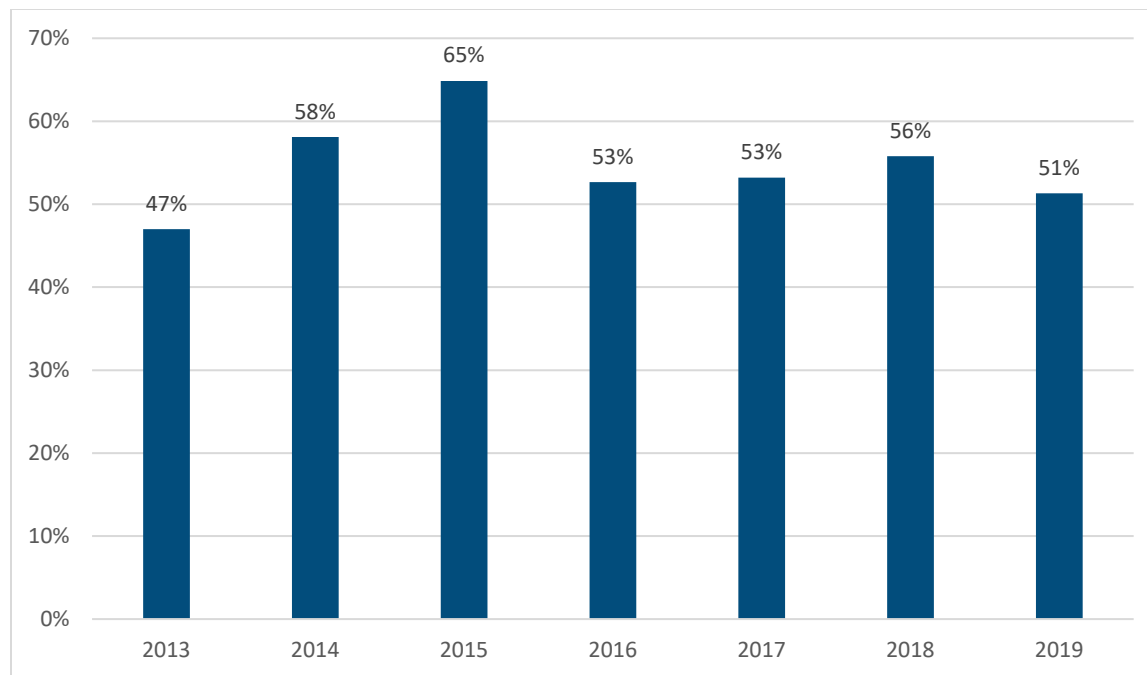
CLIMATE CHANGE – TOP FIVE EMERGING RISKS, 2013-2019



Risks in the technological category, both Cyber/networks and Disruptive technology, fell in this iteration of the survey. News about cyberattacks continues to be prominently featured, but it may be that some risk managers feel it has moved beyond emerging-risk status to a regularly managed risk. In a related qualitative question, many respondents shared specific cyber-related scenarios they use to test the risk.

Figure 2

CYBER/NETWORKS – TOP FIVE EMERGING RISKS, 2013-2019



While the top two choices switched places among the top five risks, and the names of two of the risks evolved slightly when compared to 2018 results, there was no change in the five risks listed (see table 1).

Table 1

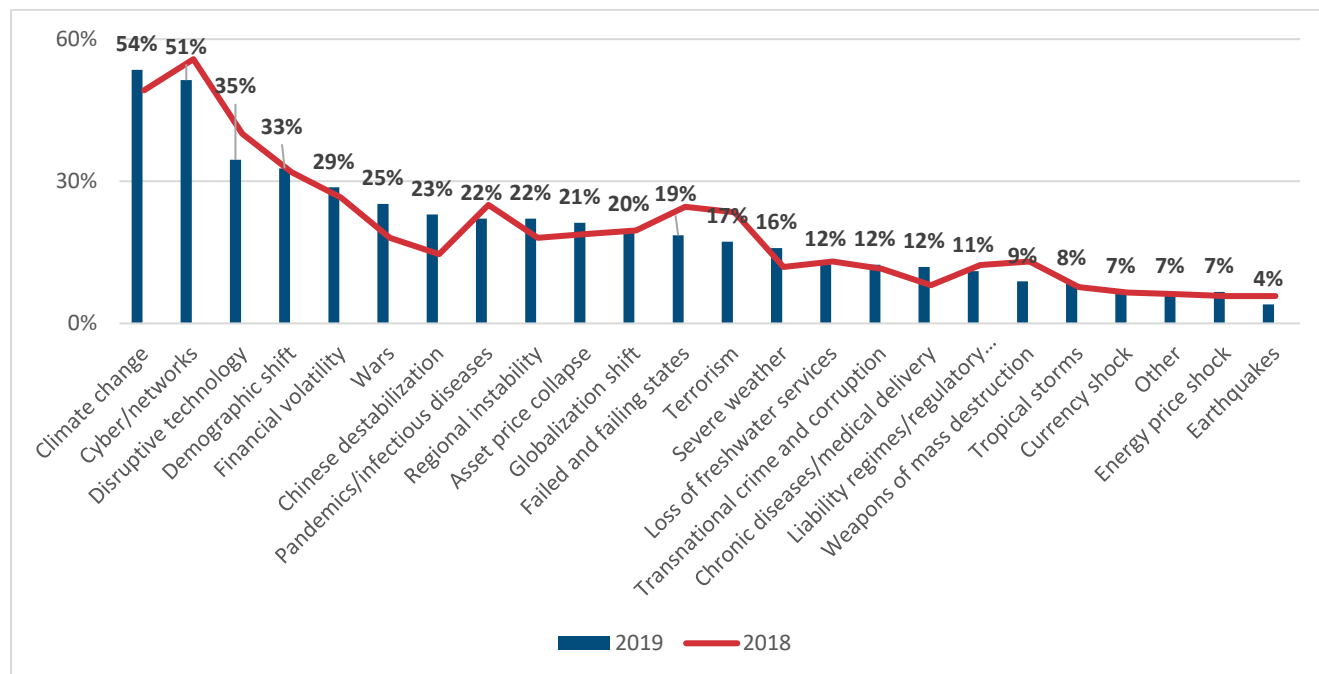
TOP FIVE EMERGING RISKS, 2016-2019

Year	2016	2017	2018	2019
1	Cyber/networks	Cyber/networks	Cyber/networks	Climate change
2	Financial volatility	Terrorism	Climate change	Cyber/networks
3	Terrorism	Disruptive technology	Disruptive technology	Disruptive technology
4	Disruptive technology	Regional instability	Demographic shift	Demographic shift
5	Retrenchment from globalization	Asset price collapse	Financial volatility	Financial volatility

Results for the top five emerging risks in figure 3 have been sorted based on the previous survey (2018) to highlight the differences in the most recent survey. Labels reflect the 2019 results. As shown in figure 3, the largest moves in this iteration of the survey were both up, with Chinese destabilization increasing by 8% and Wars (including civil wars) increasing by 7%.

Figure 3

YEAR-OVER-YEAR EMERGING RISKS (UP TO FIVE RISKS CHOSEN PER SURVEY)



Among other questions, the top five risks for the current survey are as follows:

Top Current Risk

1. Climate change (16.5%)
2. Financial volatility (9.5%)
3. Asset price collapse (9.1%)
4. Cyber/networks (7.8%)
5. Disruptive technology (6.1%)

Top Emerging Risk

1. Climate change (27.0%)
2. Disruptive technology (10.6%)
3. Cyber/networks (10.2%)
4. Financial volatility (6.2%)
5. Asset price collapse (5.8%)

Top Risk Combination

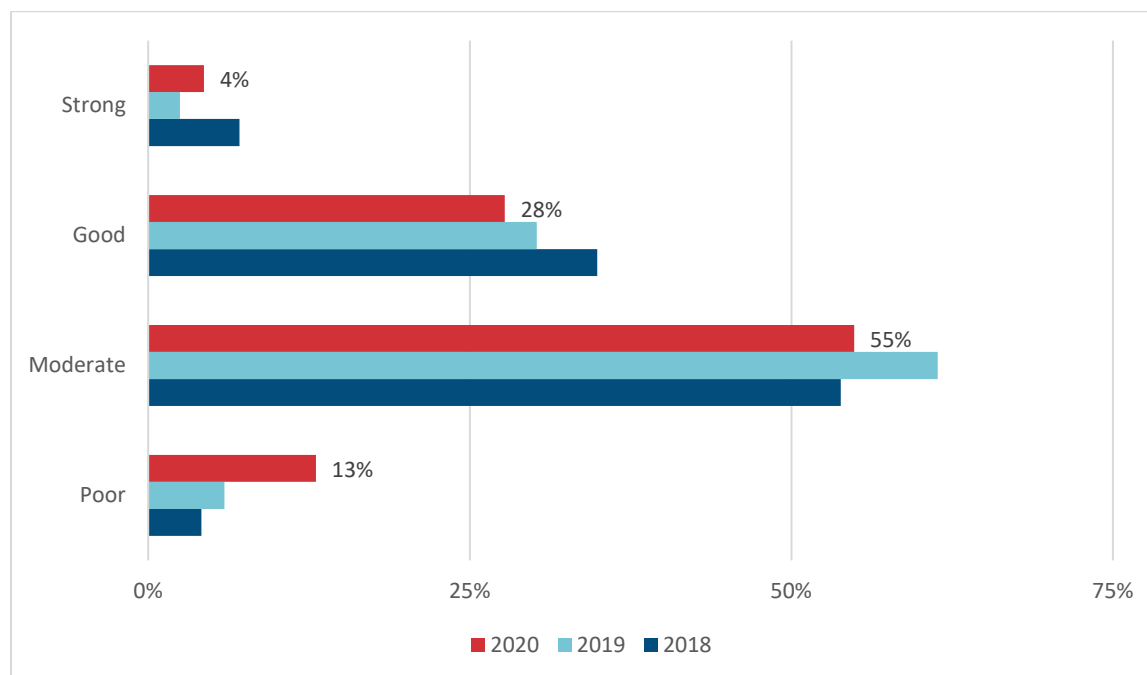
1. Climate change (11.6%)
2. Cyber/networks (8.1%)
3. Financial volatility (7.4%)
4. Disruptive technology (6.8%)
5. Asset price collapse (6.3%)

Key Finding 2: Global Economic Outlook Good for 2020

Global economic expectations are still hardy, but more respondents have negative views compared to the previous survey. More than 30% of respondents expect 2020 to be good or strong (see figure 4), but 13% have poor expectations for the global economy. This could reflect the upcoming American election cycle and fear of spillover into economic results due to issues like trade, immigration and gun control that seem to be leading populations to split ideologically.

Figure 4

GLOBAL ECONOMIC EXPECTATIONS

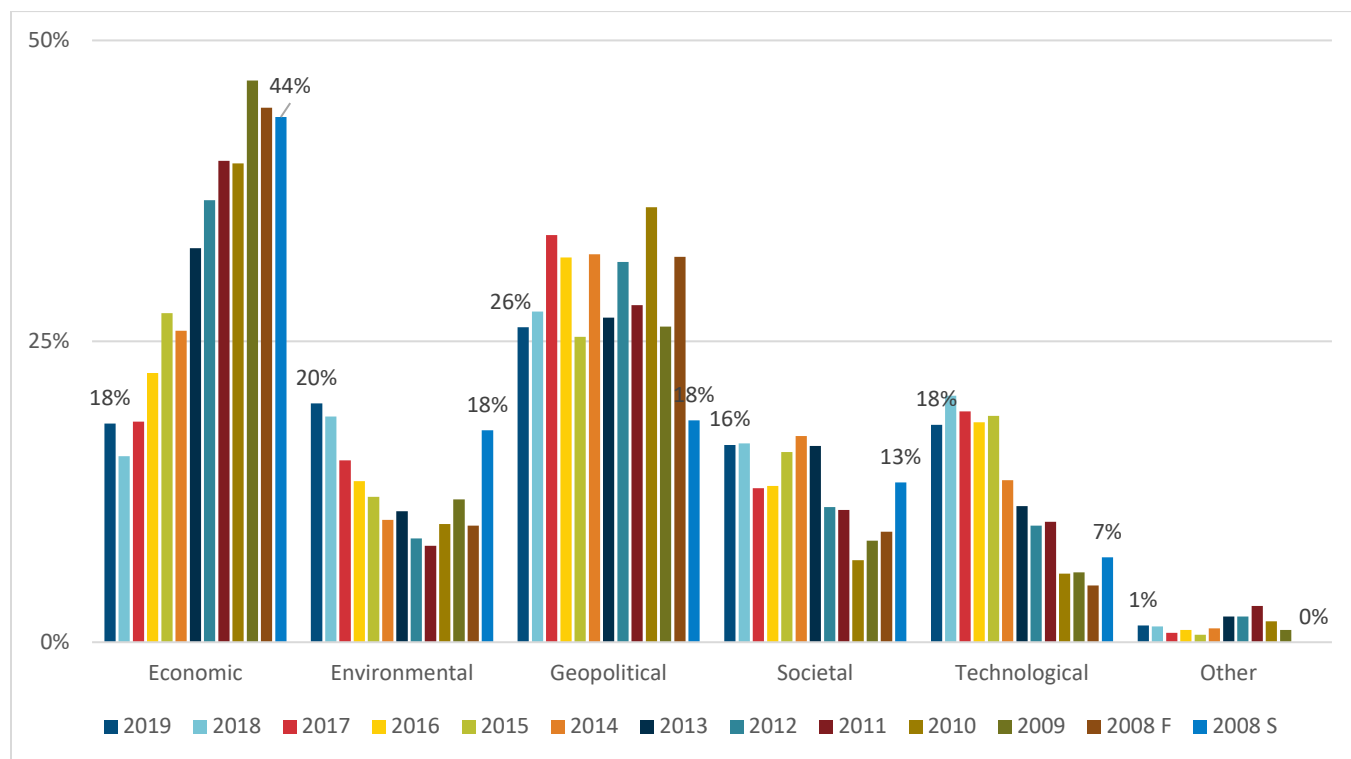


Key Finding 3: Geopolitical Risks Lead among Categories, Environmental Risks Trend Up

Emerging risks in the geopolitical category are down slightly from 2018, but it remains the leading risk category in 2019, while the economic category rebounded after seven consecutive years of decreases. Environmental risks increased for the fifth consecutive year (climate change increased by 5% and Natural catastrophe: severe weather increased by 4%), as societal held steady and technological decreased. Chinese destabilization drove the economic category higher (see figure 5).² Including all data points in this figure helps to put survey trends into perspective against the time frame. For example, the economic category peaked during the global financial crisis and has generally fallen since then, while technological- and environmental-category risks have increased.

Figure 5

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



² The current survey is the 13th version of the survey. The survey was completed twice in 2008 (spring, fall) and then annually.

Key Finding 4: Undervalued Risks

In a new question designed to extend the time horizon considered, respondents were asked which risks (up to three) they believed were undervalued and thus deserving of more attention over the next 20 years. As shown in figure 6, despite its strong showing in the rest of the survey, Climate change is also the top undervalued risk. It is followed by Demographic shift, a tie between Cyber/networks and Pandemics/infectious diseases, and, in fifth place, Loss of freshwater services. As the earth warms, concerns arise about disease and melting ice and their interactions with livability and regional conflict over resources. Here the societal category joins geopolitical and environmental to form the top three response categories.

Interestingly, since the survey closed and before this report is released, a coronavirus named COVID-19 has developed and spread internationally. This will enable medical, government, and financial professionals to test their preparation work done in advance for pandemic/infectious disease risk and further activities will be listed for future risk managers to consider.

Figure 6

UNDERVALUED RISKS

