

2021-2022 Risk Outlook Survey

JANUARY 2022



INTRODUCTION

We start 2022 in a very different position than 2021. Although not out of the woods from the pandemic yet, a path out is beginning to emerge. New threats like the Omicron variant, rising inflation, unprecedented government debt, and businesses competing for finite talent resources needed for their post pandemic strategic transformation are now taking precedence as we start the new year.

The Global Risk Institute (GRI) conducts an annual Risk Outlook Survey (the survey) that measures GRI member institutions' perceptions of risk in the coming year. It provides important insights into how they view the outlook of the Canadian financial services sector and the global

economies in which they operate. GRI's members comprise the top financial institutions in Canada. The survey participants include banks, insurance companies, Crown corporations, government agencies, pension funds, and other asset managers. Respondents completed this year's survey during December 2021 and January 2022.

This paper presents the results of the latest survey. Key findings on priority risk issues facing the Canadian financial system and its financial institutions are first discussed. It is followed by perceptions of our members on the global economic outlook. The report concludes with risk insights drawn from this year's survey with which we aim to inspire our audience when thinking and planning forward.

Table 1: Top 5 perceived risks to the Canadian Financial System

Position	Outlook		
	2022	2021	2020
#1	Economic	Economic	Cyber
#2	Cyber	Cyber	Geopolitical
#3	Climate	Climate	Economic
#4	Credit	Pandemic	Consumer Debt
#5	Talent	Credit	Housing

Table 2: Highlights

Survey finding	Insight
The priority of economic risk has increased by 60% in the 2022 GRI Risk Outlook Survey compared to last year, as we progress in rebuilding the Canadian economy.	It is recognized that the economy is still in a fragile state as we start off the third year of the pandemic. Concerns around persistent inflation are posing a threat to the future recovery.
Cyber risk continues this year to be viewed as the most challenging to manage for Canadian financial institutions.	The adoption of virtual and digital business practices has picked up considerably due to the pandemic. This has greatly increased the number of access points for cyber ‘bad actors’ to operate in.
Climate change and environmental risk remains a top risk of concern.	The uncertainty in the previous years’ looks to have waned as we are seeing a maturity in this risk type in the industry. The threat from climate change is still present, but our members feel better prepared in 2022.
Confidence in the stability of the Canadian financial system remains high, with 100% of respondents either confident or very confident.	Prudent risk practices in the individual financial institutions in Canada continue to play a key role. There is trust in government and regulator ability to support the sector as evidenced from the past two years of coordinated action.
New for 2022 is the perceived importance of managing talent risk as businesses transform to the post-pandemic world.	There was still a large amount of uncertainty about our exit from the pandemic (i.e., vaccines and the rollout logistics) this time last year. Now after two full years of the pandemic, businesses have embarked on business model transformations. Given the coordinated timing, it is putting upward pressure on compensation for those who have the requisite skills for their future business needs.

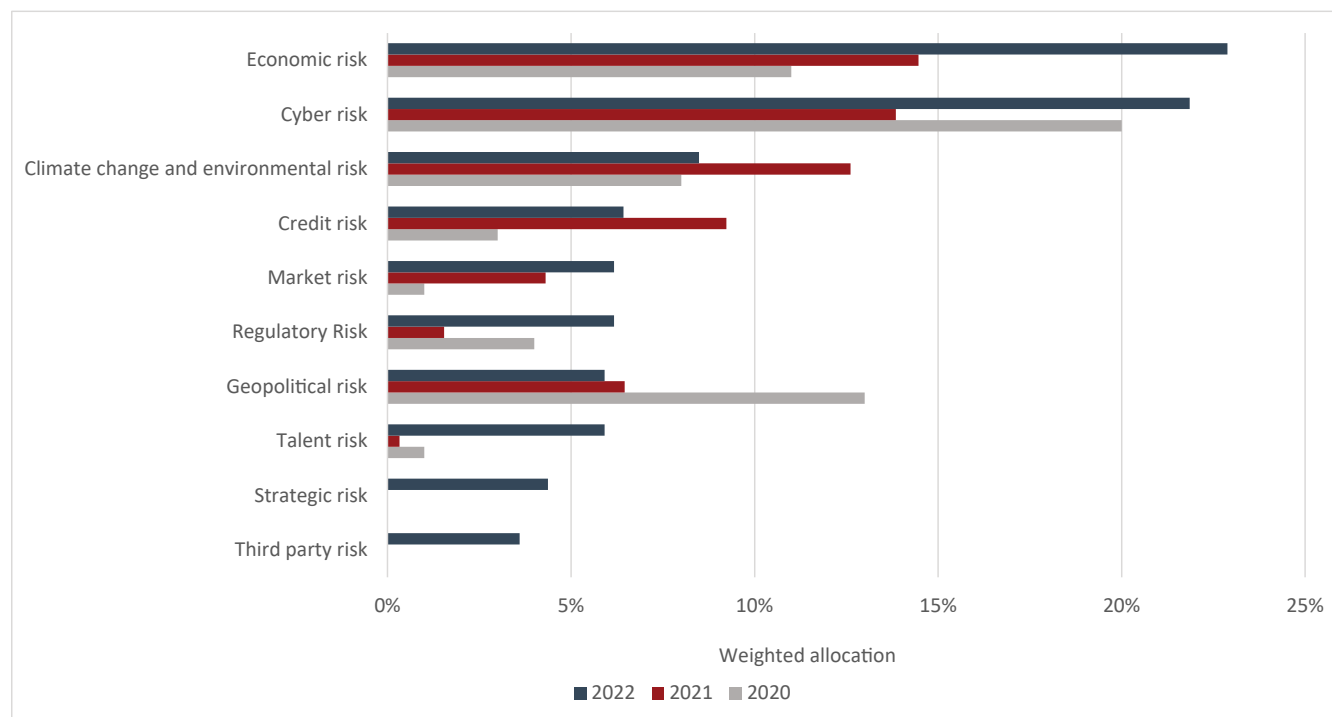
TOP RISKS TO THE CANADIAN FINANCIAL SYSTEM IN 2022

Surveyed financial institutions were asked to list the risks that are expected to have the most significant impact on the Canadian financial system in 2022 (see Figure 1).

Due to the long-term, ongoing impact of the COVID-19 pandemic on the broad economy, **economic risk** continues to be perceived as the top risk to the system for a second year in a row by Canada’s financial institutions. **Cyber risk** and **climate risk** continue to rank highly, with these top three perceived risks to the financial system unchanged from last year. Economic risk and cyber risk had notable increases in perceived significance this year.

Firstly, 2021 saw many high-impact cyber incidents, which have put Board directors and executives at unease. Ransomware incidents such as Colonial Pipeline, and security vulnerabilities such as Log4j, were two of many high-profile attacks. The combination of the frequent cyber threats and the rapid normalization of virtualization and digitization (e.g. cloud applications and internet of things) within the industry means more entry points than ever before for cyberattacks to occur.

Figure 1: Top 10 risks ranked by the severity of their impact on the Canadian Financial System



Cyber Risk in 2021

The frequency of cyberattacks is on the rise. 45% of businesses experienced cyberattacks in 2021, up 7 percentage points from 2020, according to the Canadian Internet Registration Authority's 2021 Cybersecurity Survey.^[1]

Among all cyber threats, ransomware is the most common form Canadians face. A recent NordLocker report shows that Canadian corporations were the third biggest victims of ransomware attacks in 2020 and 2021, trailing only the US and UK based entities.^[2] Their research of 1,200 ransomware cases between 2020 and 2021 has also shown that, while all industries experience such cyberattacks, some types of businesses get breached more often. In Canada, the Construction sector was the top ransomware target (93 victimized companies), followed by Manufacturing (86) and Finance (69).

2021 has been marked by the highest ransoms and the highest payouts. As of September 2021, the Conti group's average ransom payment amounts to \$373,902 USD (\$475,800 CAD). The total cost of recovery from a ransomware attack averaged \$1.85 million USD (\$2.35 million CAD) in 2021, more than doubled compared to a year ago.^[3]

The Canadian Center for Cyber Security (CCCS), which leads the federal government's response to cybersecurity events, has assessed that "ransomware will continue to pose a threat to the national security and economic prosperity of Canada and its allies in 2022 as it remains a profitable activity for cybercriminals."^[4]

TOP RISKS TO THE CANADIAN FINANCIAL SYSTEM IN 2022 (CONTINUED)

Economic risk's marked awareness increase for 2022 outlook has both macro and micro underlying drivers. In particular, there was a significant change in position by our largest trading partner, with the Federal Reserve altering views on transitory inflation and reversing quantitative easing measures in late 2021^[5]. The micro-economic risks were a new highlight of this year's survey results, with the 'triple threat' of talent, strategic, and third-party risks being raised. **Third-party risk** lifted in prominence as many organizations focused on strengthening

their operational resilience practices. There was also recognition of the critical dependence on a handful of information technology vendors in what is becoming a globally consolidated market^[6]. **Strategic risk** and **talent risk** highlight that executing plans of business model changes for a post-pandemic world is underway for many GRI members. This is reinforced by the overwhelming 81% of survey respondents who indicated a moderate or significant change in how their business will operate post-pandemic (see Table 3).

Table 3: Implications of the COVID-19 Pandemic

To what extent do you believe the pandemic and its aftermath will fundamentally change the way your business operates?

Substantially	Moderately	Slightly	Not at All
27%	54%	19%	

Talent Risk in 2021

The "Great Resignation", where a wave of workers voluntarily resigns from their jobs in 2021, has troubled the labor market. Job vacancies in Canada reached an all-time high of 912,580 in Q3 2021, according to Statistics Canada. Working conditions flexibility, pay and benefits, and career advancement are revealed by surveys as the most sought-after considerations for prospect hires.

For employers, it is difficult to fill their openings with talent equipped with the desired skillset. It can be attributed to two reasons. First, the job market is short of available labor. The pandemic has made

employees rethink their work conditions, careers and long-term goals. Many more young workers become gig workers as they seek better work-life balance with greater flexibilities in their new roles. Unemployment decreased throughout 2021 in Canada and reached 6.0% in Q4 2021, the lowest level since February 2020 (5.7%). Second, the specific skills employers are looking for are hard to allocate in today's labor market. According to a poll by KPMG Canada, almost 79% of the participants need more workers with digital skills, and more than two-thirds of businesses find it challenging to hire talents with the desired skillset.^[7]

In this year's survey, climate risk again ranks in the survey's top three risks with the Canadian economy reeling from numerous climate change-driven extreme weather events

occurring in the past year and the potential long-term impact we face from climate change.

Extreme weather events in 2021

2021 saw frequent alarming extreme weather forecasts, and many regions experienced unprecedented weather events that destroyed properties and caused loss of lives. The past year has made climate risk real for so many Canadians. British Columbia was struck by an unprecedented, devastating heat dome in late June. 445 identified heat-related deaths occurred during this weather event. The province was then struck by major flooding events.

Globally, Hurricane Ida in the US in August resulted in a death toll of 95, July floods in Western Europe with 240,

winter storms in Texas in February claiming 246 lives, and floods in Henan province in China with a death toll of 320.

Particularly for insurers, 2021 is the second-most costly year with insured losses from natural disasters, totaling US\$120 billion (lower than US\$146 billion from the hurricane-ridden 2017).^[8] According to the Intergovernmental Panel on Climate Change (IPCC), human activity-driven global warming increases both the frequency and the intensity of these weather events. These trends intensify climate-related risks for the world's insurers.

Credit risk is also high on the list of perceived risks. Two years since the start of this pandemic, and with substantial government and regulatory responses, we are unlikely to see the repeat of the 2008-09 correlated insolvencies.^[9] Rather, it is now the specter of inflation that looks to have replaced this concern in part.

Following credit risk is the expected continued volatility in the capital markets for 2022. **Market risk, regulatory risk, and geopolitical risk** represent this uncertainty on the survey list. Regulation for the transition to net-zero is expected to come in the near future. This will have wide ranging impacts to carbon intensive and capital intensive businesses operating in Canada. The industry's perception of geopolitical risk has come off the highs of the volatile

Trump era, but there still remains significant trade threats in many theatres (e.g., USMCA, US-China, Ukraine-Russia, Brexit) within the global markets.

Respondents were also asked about the risks perceived as most difficult for the Canadian financial system to manage (see Figure 2). Cyber risk had overtaken climate risk at the top spot for 2022, given increases in the number of threat actors and system entry points mentioned previously. On the other hand, confidence by financial institutions in the ability of the Canadian system to withstand risks continues to rise despite the uncertainties (see Table 4). There is trust in the Canadian government and regulator's ability^[10] to support the financial sector, along with robust balance sheet positions held by Canada's financial institutions and their continued prudent risk management practices.

Figure 2: Top 10 risks ranked by their difficulty to manage for the Canadian financial system

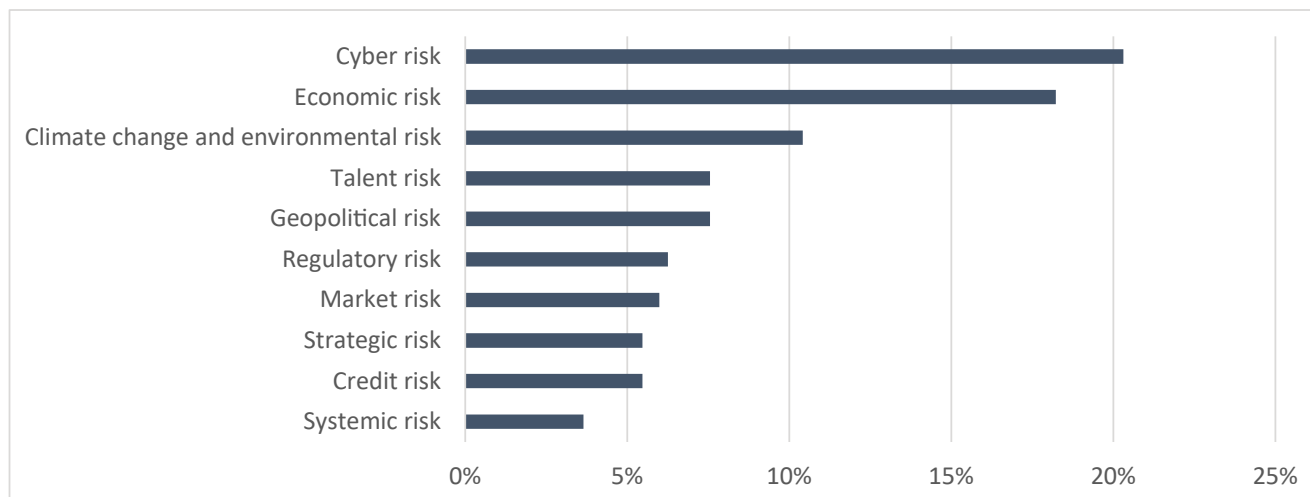


Table 4: Views on Canada's Financial Stability

Confidence in the Canadian financial system to withstand key risks

Outlook Year	Very Confident	Confident	Low Confidence	Not Confident
2022	38%	62%		
2021	36%	64%		
2020	40%	60%		
2019	45%	50%	5%	
2018	27%	59%	14%	

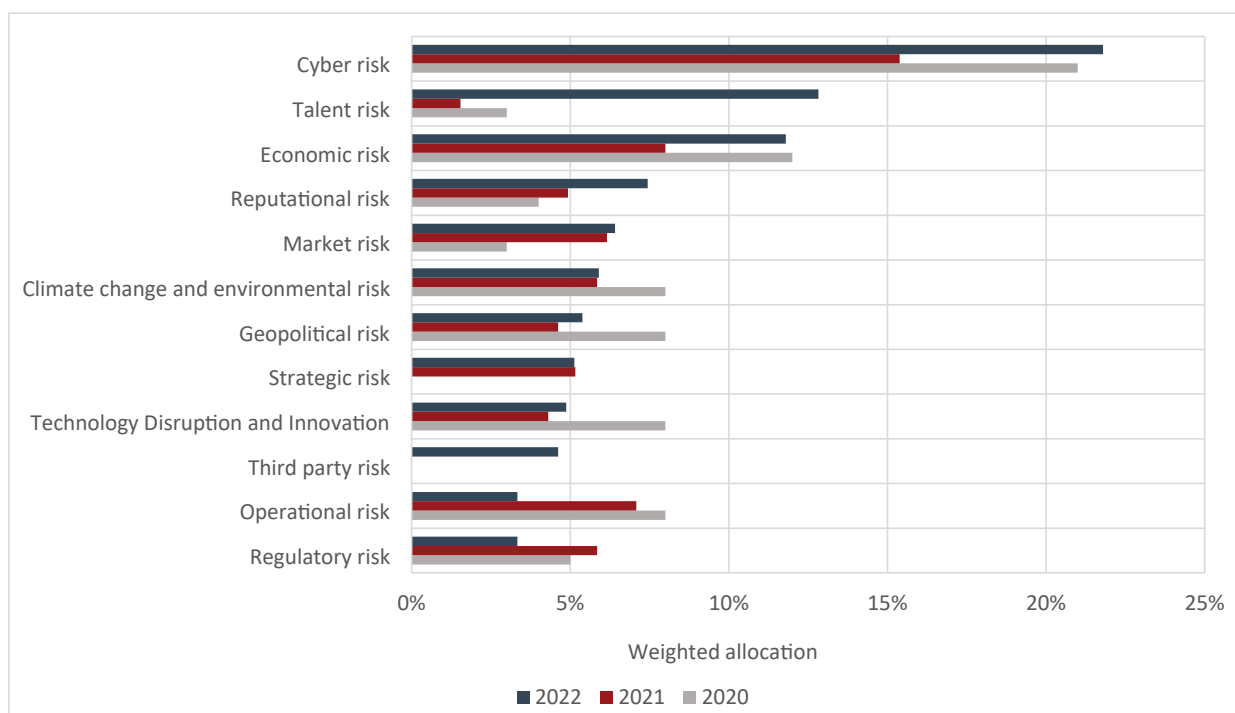
TOP RISKS TO CANADIAN FINANCIAL INSTITUTIONS IN 2022

Respondents were asked to identify the top risks that would have the largest impact on their own financial institutions in 2022 (see Figure 3).

Cyber risk continues to be the top idiosyncratic concern. Malware, ransomware, and data breaches remain ever present threats in today's digital, interconnected world. Threat actors are becoming more sophisticated.

A new development has been that talent risk has taken the number 2 spot. This risk type had not been near the top concerns in previous years. "We've never faced more competition for talent, and particularly acute in the engineering, AI, data, mathematics and coding space," said Royal Bank of Canada Chief Executive Officer Dave McKay, in a recent interview with Bloomberg^[11].

Figure 3: Top 10 risks ranked by the severity of their impact on the respondents' own institutions



PERCEPTION OF THE GLOBAL ECONOMY FOR 2022

GRI members were asked about perceptions of the global economy's prospects in 2022. Ratings were given for confidence and stability in various jurisdictions (see Figures 4 and 5).

There was optimism for the North American continent, with approximately half predicting a positive outlook. North America, particularly the United States, has an innovative culture of rapidly pivoting business practices following disruptions. The results contrast the poor outlook confidence for the 'old world' economies of Europe and the UK. The prolonged challenges of Brexit and the pandemic have likely raised concerns about their future economic recovery.

China's outlook has decreased in confidence with a corresponding slowdown of the global economy and recent lockdown of a few major Chinese cities. Yet 40% of survey respondents are still positive that China will maintain system stability, thanks to continued domestic demand and robust reserves. Confidence in Asia had remained mostly unchanged. The bulk of Asia had managed the pandemic well on a relative basis, having had systems in place from lessons learnt from coronavirus epidemics in their past.^[12] GRI members were asked about factors that may contribute to global economic instability in 2022 (see Figure 6). The uncertainty of the pandemic's resolution ranks the highest. It would be fair to say there would be hardly anyone who two years ago would have bet that we would be entering the third year of the COVID-19 pandemic with still no clear pathway out.

Figure 4: Change in confidence in global economies over the past year

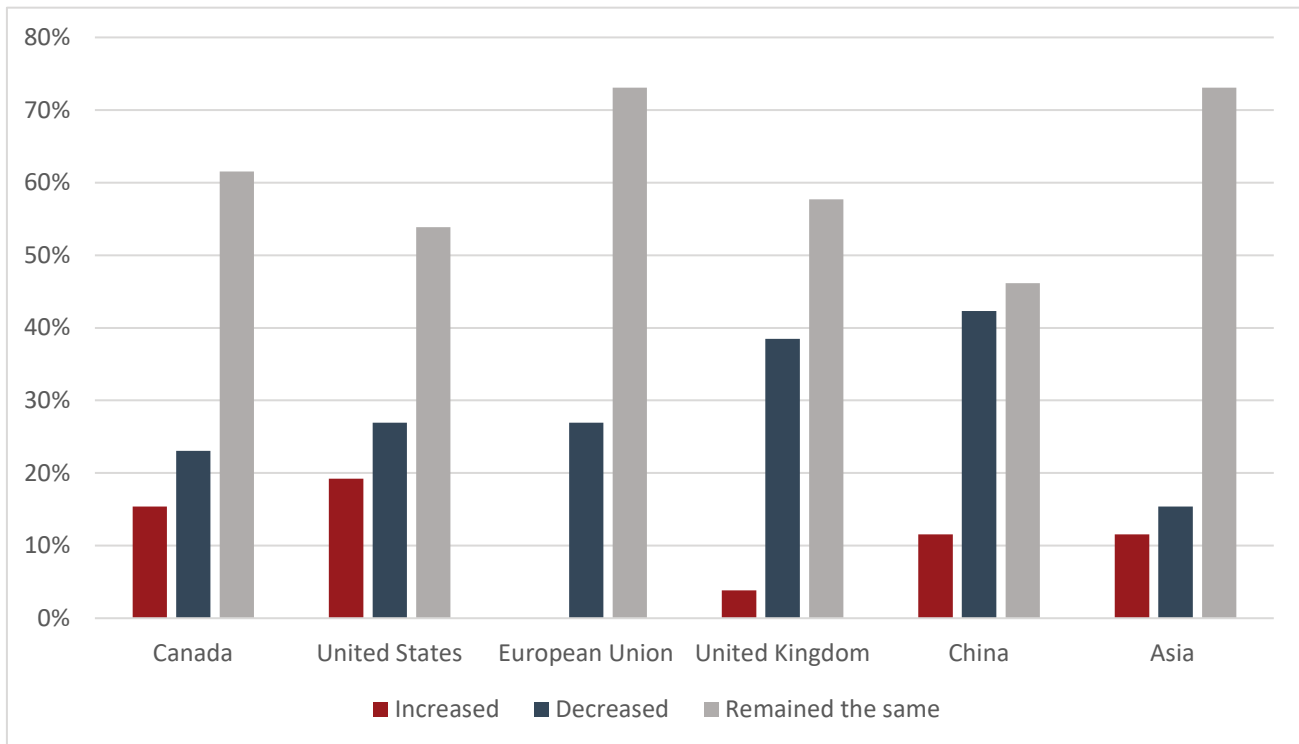


Figure 5: Current outlook on the stability of major economies

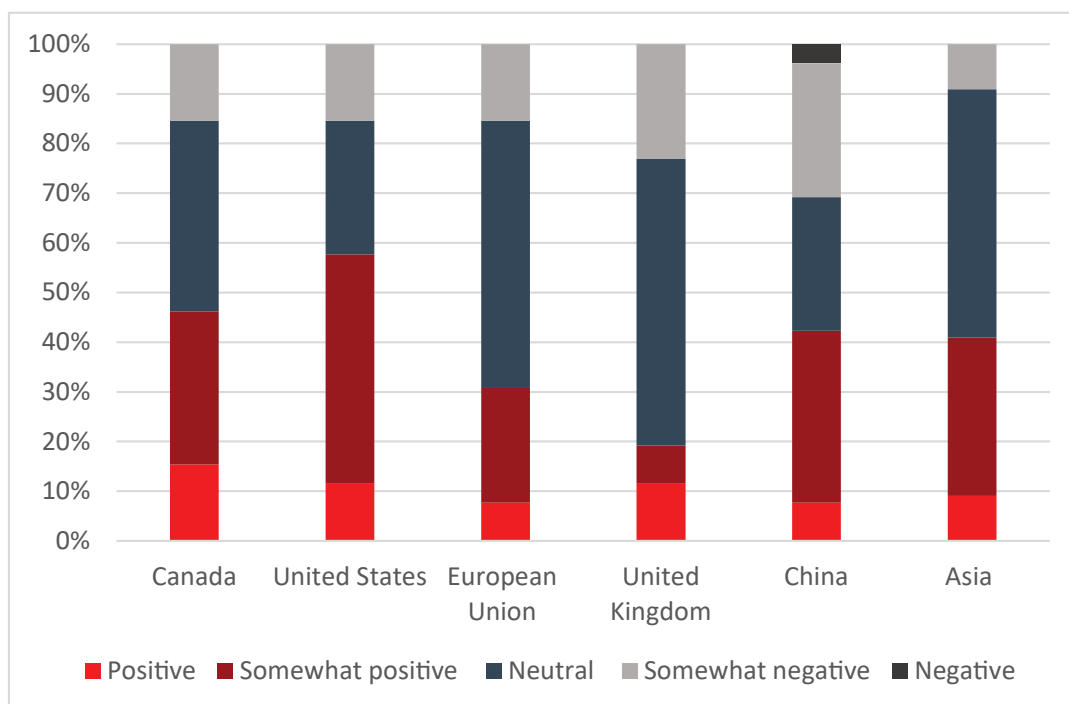
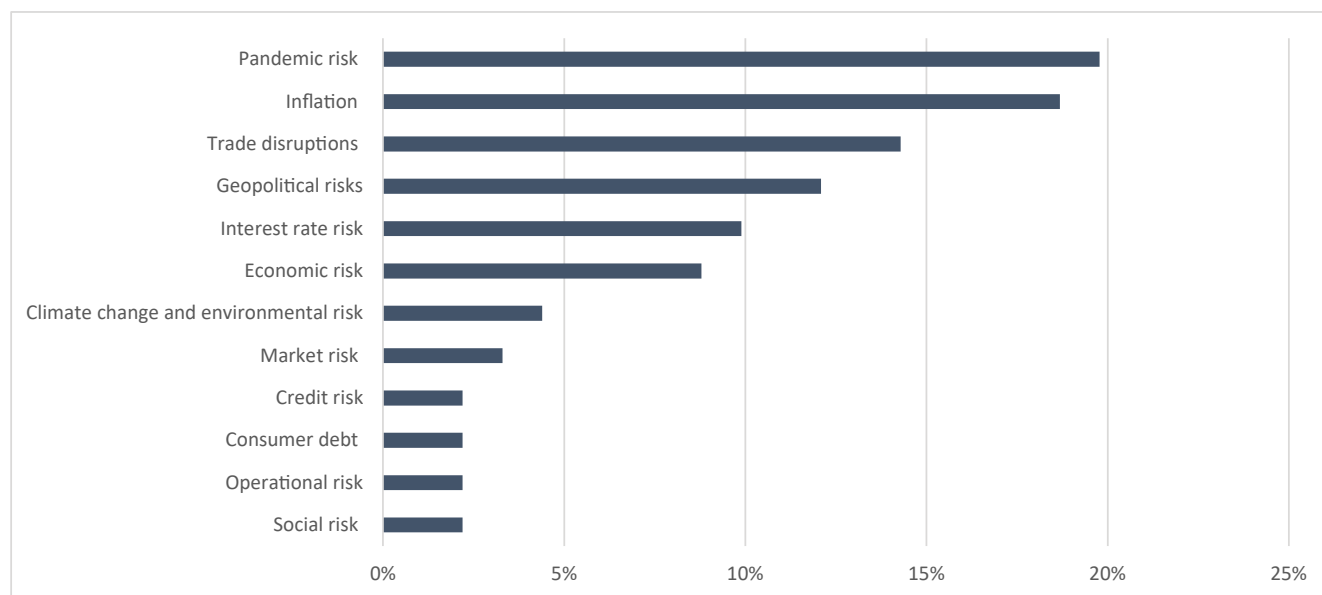


Figure 6: Perceived factors that will contribute to Global Economic Instability in 2022



CONCLUSION

The 2022 GRI Risk Outlook Survey yields a number of important insights on the Canadian financial services industry's perception of risk.

The three themes of economic risk, cyber risk, and climate risk rightfully carry over their top spots in this year's survey. They each represent significant and interconnected challenges to the stability of the financial system. All three of these risks have seen significant events in 2021 to warrant their inclusion on any executive's list of risks to proactively manage.

This year prominently featured the "war for talent" emerging as a new concern of significance. Much greater confidence from the expansive roll-out of vaccines in 2021

has replaced the uncertainty by executives on how we are to pass through the pandemic, with how we prepare to succeed in the post-pandemic world. Execution of plans for new business models and practices has seen competition for talent with the requisite digital-age skills. Successfully acquiring the right skilled talent is critical to managing the organization's strategic risk.

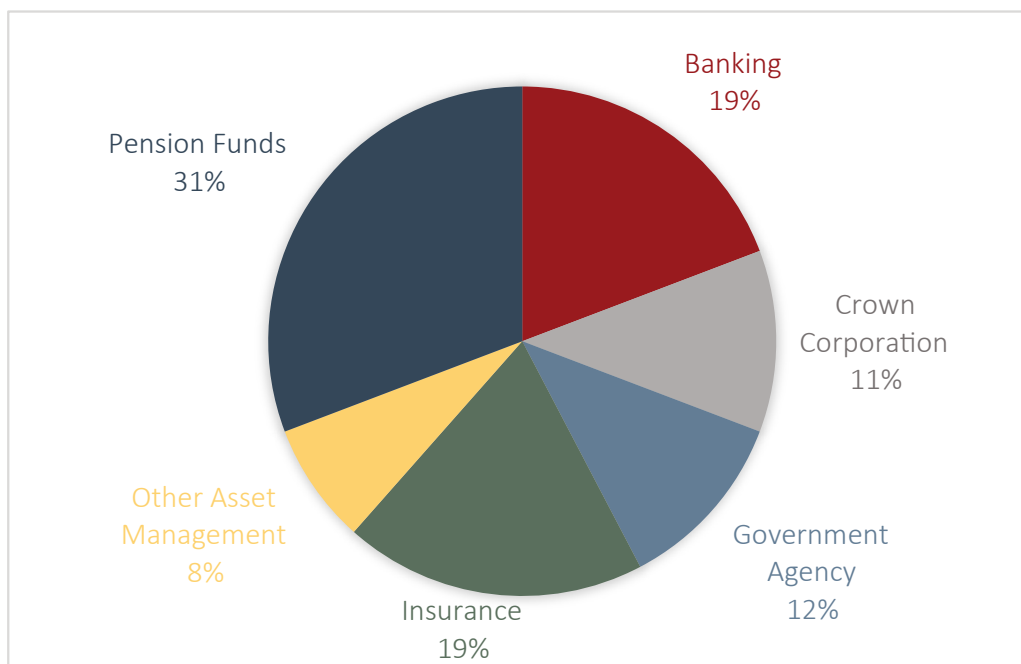
The risk horizon changes over the coming years, as the full implications of the pandemic become clearer. Our survey results indicate that there is continued confidence that our system is well-positioned to withstand an uncertain future with existing prudent risk management practices.

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APPENDIX

Survey Responses by Industry Sector



Implications of the COVID-19 Pandemic

To what extent do you believe the pandemic and its aftermath have changed the way your company sees risk?

Substantially	Moderately	Slightly	Not at All
12%	42%	42%	

Views on Canada's Financial Stability

Likelihood of a high impact event occurring

Time Frame	Year	Very Likely	Likely	Indifferent	Unlikely	Highly Unlikely
1 Year	2021	8%	76%	8%	8%	
	2020	14%	64%	14%	8%	
	2019		48%	32%	16%	4%
	2018		48%	24%	19%	9%
	2017	5%	59%	18%	18%	
5 Year	2021	64%	28%	4%	4%	
	2020	50%	41%	9%		
	2019	50%	38%	4%	8%	
	2018	24%	57%	5%	14%	
	2017	50%	45%	5%		

Top 10 risks ranked by their difficulty to manage for respondents' own institutions

