PACICC

Property and Casualty Insurance Compensation Corporation Société d'indemnisation en matière d'assurances IARD

ERM Benchmark Survey Report

A report on PACICC's ninth ERM benchmarking survey

September 2023



Member Survey on ERM Practices

A report on PACICC's ninth ERM benchmarking survey

September 2023

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Executive Summary

PACICC is the industry-funded, non-profit resolution authority for Canada's Property and Casualty (P&C) insurance industry. PACICC's mandate focuses on initiatives to address solvency risk in the industry. This includes Member surveys that explore the depth and quality of the industry's enterprise risk management (ERM) programs. PACICC has surveyed its Members on their ERM practices nine times now over the past 12 years. This benchmarking survey encourages Member dialogue on industry ERM best practices and highlight practical elements that underpin a robust risk management program. This report identifies both common and best practices in the management of ERM among Member companies, as well as other points of interest (e.g. developing trends and unexpected survey responses).

The survey compares responses for "large companies" vs. "small companies" in the industry. For purposes of this survey, large companies are defined as those with \$500 million or more in Direct Written Premium (DWP) in the previous year (2022). Small companies are those with less than \$500 million in DWP.

The report identifies a list of ERM best practices employed by most firms in the industry. These best practices reflect at least 90 percent support among respondents over several years of surveys. The report also identifies common practices employed by many firms in the industry in the management of ERM. The more popular they become, the more accepted they are as best practice for the industry. There are an equal number of common practices and best practices. A number of points of interest (e.g. emerging trends and changes in responses compared to past years) are also noted in this report.

All survey responses are received in strict confidence by PACICC staff, and are not shared with third parties. This report presents summary results only, with no attributed comments or identifiers. The survey is now issued on a bi-annual basis in order to avoid "survey fatigue" and to provide more time for changes in practices and approaches to develop.

PACICC will continue to survey Members regarding ERM practices in order to enhance industry education on the merits of a robust ERM program. Surveys like this one help to foster industry dialogue and increase effective risk management oversight and practices in the industry.

Introduction

Enterprise Risk Management (ERM) is widely viewed as a best practice for P&C insurance companies to employ in managing risks. Top-performing companies have distinguished themselves through demonstrated superior risk management capabilities and practices. Their financial performance is influenced by how well they integrate risk management activities across the organization. Canada's federal and provincial/territorial insurance regulators have strongly recommended that P&C insurance companies seek to enhance their risk management practices on an enterprise-wide basis. Risk management is essential to the business of insurance. Key risk areas include: underwriting, credit, market, liquidity, operational, strategic, reputation and emerging risks.

In its role as the resolution authority for Canada's P&C insurance industry, PACICC remains committed to assisting Member companies in strengthening the depth and quality of their risk management capabilities and practices. This will help to mitigate industry solvency risk. PACICC has distributed ERM Surveys to its Members (in strict confidence) nine times now over the past 12 years – in 2011, 2013, 2015, 2016, 2017, 2018, 2019, 2021 and 2023. The surveys, conducted using SurveyMonkey for response ease and simplicity, were developed in consultation with PACICC's Risk Management Advisory Committee (an industry advisory committee of risk management experts). The survey questions encourage dialogue among Members regarding leading ERM practices and highlight practical elements that underpin a robust ERM program.

Following each survey of Members, PACICC issues a summary report to Members, with aggregate results showing: how well the industry is managing enterprise risks; where progress is being made; and where further attention may be required. This report presents 2023 survey findings and includes comparisons against past results. Members of the Advisory Committee are listed in Appendix I. The full list of survey questions (which compares this year's responses against those received from the first year that each question was posed) and summary responses appear in Appendix II.

Background

PACICC's ERM benchmark survey initiative has three goals:

- 1. Encourage dialogue among industry stakeholders regarding ERM best practices
- 2. Highlight practical elements that underpin a robust ERM program
- **3.** Identify areas where further progress may be needed.

Questions in the 2023 survey focused on company characteristics, governance procedures, ERM framework and practices, Own Risk and Solvency Assessment (ORSA), Economic Capital Models (ECM), tools and resources, and new and emerging risks. The complete list of survey questions in Appendix II includes 2023 responses, as well as benchmark responses from when each question was first posed to Members. This enables readers to see how responses have changed over time and assess the magnitude of the change.

Industry response to the latest ERM survey remains very strong.

- Direct and related-company responses were received from 115 of PACICC's 168 Member companies – just shy of the 118 responses received in 2021, but up from the 113 in 2019
 - ► 31 with more than \$500 million in DWP in 2022 = 78.6% of industry DWP
 - ▶ 84 with less than \$500 million in DWP in 2022 = 14.7% of industry DWP
- Accounted for 93.4% of total private industry DWP down only 0.5% from 93.9% in 2019 (*highest-ever response rate*)
- 70.5% of respondents are regulated by OSFI, accounting for 84.1% of total private industry DWP.

Market share references relate to the most recent published figures (2022 DWP) for the industry. The high response rate (second-highest ever) is a clear indication of the degree to which Canadian P&C insurers are committed to the concept of ERM, and are interested in exchanging best practices information.

Note: Percentages in the survey may not add to 100 due to rounding and/or to respondents missing or skipping questions.

1. Best Practices

When PACICC first began surveying Members on their ERM practices a decade ago, there were considerable differences in approaches across the industry. With the sharing of information and the passage of time, many initiatives have come to be accepted now as "best practice." The degree of sophistication and maturity in ERM practices between very large companies and very small companies in the industry has narrowed considerably. Without question, the use of a risk appetite statement outlining specific goals, benchmarks, parameters and limits is a must for risk managers. While this may now seem routine, such was not always the case.

Following are eight best practices identified through responses to the 2023 Survey, employed by most firms in the industry. A best practice typically reflects at least 90 percent support among respondents over several years of PACICC ERM Surveys.

- **1.** In leading companies, persons with primary responsibility for managing ERM have direct access to the Board of Directors or to the relevant Committee of the Board Question 6 Supported by 94.8% of respondents (*up from 92.4% in 2021*)
- 2. Leading companies have a documented ERM framework or policy in place with established procedures

Question 9 – Supported by 96.5% of respondents (down from 96.6% in 2021)

- **3. Leading companies have a Board-approved risk appetite statement** Question 10 – Supported by 95.6% of respondents (*up from 94.1% in 2021*)
- 4. Risk categories explicitly addressed in leading companies' ERM programs include: underwriting, credit, market, liquidity, operational and strategic Question 12 – Supported by at least 89.6% of respondents (*down from* 90.7% *in* 2021)
- 5. Impacts considered in companies' ERM framework while assessing risk include: potential impact on income/earnings, potential impact on regulatory capital and reputational impact

Question 15 – Supported by at least 93.9% of respondents (up from 86.4% in 2021)

- 6. Leading companies have a risk profile in place listing all of the material risks identified by the company Question 17 – Supported by 93.9% of respondents (down from 94.9% in 2021)
- **7.** Leading companies employ busines continuity planning for the entire organization Question 23 – Supported by 93.9% of respondents (*down from* 94.9% *in* 2021)
- 8. Leading companies have a cyber protection plan in place for the entire organization

Question 26 – Supported by 96.5% of respondents (up from 90.7% in 2021)

2. Common Practices

Following are eight common practices employed by many firms in the industry in the management of ERM. The more popular these approaches become, the more accepted they are as best practice. The 2023 survey revealed an equal number of best practices and common practices.

1. Persons with primary responsibility for managing ERM are part of the company's Executive Management Team

Question 7 – Supported by 83.5% of respondents (up from 82.2% in 2021)

- **2.** Companies have a formal process in place to identify new or emerging risks Question 13 – Supported by 84.3% of respondents (*up from* 83.1% *in* 2021)
- **3. ERM is considered to be highly embedded in the business and valued by Senior Management and the Board of Directors** Question 14 – Supported by 71.3% of respondents (*up from 59.3% in 2021*)
- 4. Companies' risk profiles address: information relating to each risk, persons primarily responsible for managing each risk, prioritization of individual risks based on the ratings assigned and action plans to mitigate priority risks Question 18 Supported by at least 83.5% of respondents (up from 80.5% in 2021)
- 5. ERM is managed by forming an aggregated measure of enterprise risks and managing risks individually

Question 19 – Supported by 75.6% of respondents (up from 69.5% in 2021)

6. Methodologies and techniques companies use to assess risk include: key risk indicators, loss event data, economic capital modelling, facilitated workshops and interviews

Question 20 – Supported by at least 57.4% of respondents (*down from* 58.5% *in* 2021)

7. Where possible, companies systematically quantify the operational risks deemed material to the organization

Question 22 - Supported by 72.2% of respondents (up from 61.9% in 2021)

8. Companies employing business continuity planning for the entire organization test for business continuity and disaster recovery annually

Questions 24 and 25 – Supported by 76.5% of respondents for business continuity, and 79.1% of respondents for disaster recovery (was 77.1% and 70.3% respectively in 2021)

3. Points of Interest

Following are a number of interesting points found in responses to the 2023 ERM survey.

- **Most companies' CROs have primary responsibility for the ERM framework** Question 4 – Compared to CEOs, Chief Agents, Chief Actuaries and CFOs; and including Subsidiaries and Branches (*was the case for 76.5% of respondents*)
- Half of respondents receive direction from a Head Office in the management of ERM
 Outstian F., Nac FO, 4% (10, F%) Learner 22,0% Small): No. 40,0% (10, 4%) Learner

Question 5 – Yes 50.4% (16.5% Large; 33.9% Small); No 49.6% (10.4% Large; 39.1% Small)

 A growing number of companies are relying on ERM activities to help to determine executive compensation
 Output in 2002 and 50 200 March in 2004

Question 8 – 66% Yes/Minimally in 2023, vs. 59.3% Yes/Minimally in 2021

 A significant number of companies said their ERM function had not been assessed by an external (independent) advisor Question 11 – 33.9% of respondents said No (34.7% in 2021). This may be

overstated, as Branches might answer No specifically, when in fact their Head Office was assessed

• Opportunities still exist for companies to communicate principles in their risk appetite statements internally to all employees

Question 16 – Only 37.4% of respondents noted that these principles are communicated internally to all employees (37.3% in 2021)

• Facilitated workshops remain the least popular methodology or technique used by companies to assess risk

Question 20 – Used by 57.4% of companies (58.5% in 2021); all other techniques and methodologies used by at least 73.9% of companies

• Most firms continue to cite Underwriting as the lead for reviews of new products and lines of business prior to launch

Question 21 – Enterprise Risk Management was cited by only 17.4% of respondents (17.8% in 2021). Many respondents (18.3%) cited "Other" leads, including dedicated and cross-functional areas of the organization

- Respondents are making increased use of external resources to assist in completing and/or reviewing their ORSA
 Question 29 48.7% of respondents answered No (was 61.0% in 2021)
- Over time, more companies have been using ORSA results for ERM, capital management and to inform strategic planning

Question 30 – ERM (83.5% in 2023; 75% in 2016); Capital management (87.8% in 2023; 70% in 2016)); Strategic planning (58.3% in 2023; 45% in 2016)

- No increase in the companies using an Economic Capital Model on a regular basis Question 31 – 2023 (59.1% Yes); 2021 (60.2% Yes)
- Excel/MS Office suite remains the technological tool of choice for most companies, and the use of third-party applications has decreased in the past two years

Question 33 – Excel/MS Office (95.6% in 2023; 89.8% in 2021); Third-party applications (51.3% in 2023; 65.3% in 2021)

- Fewer companies plan to increase their headcount or allocation to external resources
 Question 35 34.8% of respondents plan to increase (was 39.0% in 2021)
- More companies plan to invest in tools in the ERM function Question 36 – 22.6% of respondents reported plan to invest (*was* 16.9% *in* 2021)
- A new model risk framework is being (has been) developed by more than 50% of respondents to manage model risk and to manage third-party risk Questions 38 and 39 – New questions in the 2023 survey (56.5% for model risk; 60.8% for third-party risk)
- Climate change (1) and Cyber security (2) are the leading risk issues over the next 1-3 years; transposed from 2021 survey
 Question 40 – Economic uncertainty and Environment (Hazardous Chemicals) appeared for the first time as short-term risk issues
- Climate change (1) remains the leading long-term risk issue; Technological change/Al (2) pushed Cyber security down the list (3)
 Question 41 New long-term risk issues emerged, including: Geopolitical risk, Human resources, Customer expectations and Government regulation

The survey document included the following definitions to ensure common understanding among respondents.

Enterprise Risk Management (ERM)

A process (implemented by an entity's Board of Directors, management and other personnel, applied in strategy setting and across the entity) designed to identify potential events that may affect the entity, to manage risk to be within its risk appetite, and to provide reasonable assurance regarding the achievement of entity objectives.

Risk appetite

The degree of risk (broadly measured, in quantitative terms) that an insurance company is willing to accept in pursuing its business goals and values. Risk appetite requires an insurer to consider its total risk-taking philosophy, including the expectations of its shareholders. A risk appetite statement can also include qualitative factors.

Risk profile

A summary of the most material risks an insurer faces (perhaps five to 10), ranked on an appropriate basis, considering severity and probability. Some insurers may also compile a more extensive list (e.g. Risk Catalogue or Risk Register), including less significant risks.

Risk tolerance

Requires an insurance company to consider, in quantitative terms, exactly how much of its capital it is willing to lose, as well as its tolerance of volatility in earnings and other measures of performance and value.

Risk limits

Requires an insurance company to consider in detail how much risk that individual managers should be allowed to take.

Appendix I - PACICC's Risk Management Advisory Committee

The Risk Management Advisory Committee provides PACICC's Board of Directors with ongoing technical expertise regarding current and emerging risk management issues. The Advisory Committee oversees the work of PACICC's Risk Officer's Forum and is composed of senior industry risk officers who are supported by a PACICC Administrator.

2023 Advisory Committee Members

Sonia Kundi (Advisory Committee Chair) Chief Risk Officer, Zurich Canada Inc.

Sanjeev Agarwal Chief Risk Officer, AIG Insurance Company of Canada

Brandon Blant

Deputy Group Chief Risk Officer and Chief Risk Officer, North America Intact Financial Corporation

Lorelay Chekay

Executive Vice President, General Counsel & Chief Risk Officer, SGI Canada

Jean-Philippe Daigle

Chief Risk Officer, P&C Insurance, Desjardins General Insurance Group

Michele Falkins

Vice President and Chief Financial Officer, Heartland Farm Mutual Inc.

Rahul Gumber

Chief Risk Officer, Aviva Canada Inc.

Tracy Mann

Vice President, ERM and Chief Compliance Officer, Definity Financial Corporation

Amir Rahmani

Chief Risk Officer, Gore Mutual Insurance Company

Phil Traicus

Vice President, ERM, The Wawanesa Mutual Insurance Company

Ian Campbell (Committee Administrator)

Vice President, Operations, PACICC

Forum Mandate

The Forum seeks to enhance risk management within the P&C insurance industry by:

- Discussing and sharing risk management best practices within industry;
- Reviewing and communicating topical risk management information;
- Serving as a risk management resource for PACICC and for insurance regulators;
- Discussing major existing risks and significant emerging risks within the industry; and
- Providing resources, references and information to facilitate research of risk management and related governance topics.

Forum Membership

Membership in the Forum is open to staff of any Canadian licensed insurer or reinsurer (Federal, Provincial and Territorial) with management responsibility for ERM in their respective organizations. This includes PACICC Member Insurers and risk officers with insurers and reinsurers that are not PACICC Members.

Forum Activities

Forum activities typically include a series of half-day Forum meetings, as well as a series of 90-minute Emerging Risks Webinars. Given the in-person meeting restrictions necessitated by the COVID-19 pandemic, Risk Officer's Forum meetings moved online in March 2020. Later in 2023, Forum meetings will be offered in a hybrid format (in-person and teleconference).

- **Forum meetings** Feature a guest speaker addressing a topical industry issue, followed by two panel sessions featuring industry experts and senior risk officers from the industry. Forum meetings seek to engage attendees in frank discussion on a variety of current ERM issues and topics.
- **Emerging risks webinars** Feature recognized subject-matter experts who delve into technical aspects of a single ERM issue. Webinars enable Forum members across Canada to participate from remote locations. Questions are received in advance to help guide the online discussion in real time, in a talk show format. Links to all past webinars are available on the PACICC website.

Appendix II – 2023 ERM Survey Questions

Following are summary responses (Total) for each of the questions posed in the 2023 ERM Survey, in bold. Percentages may not add to 100% due to rounding, and respondents skipping some questions. In brackets is the 2023 breakdown for large companies (>\$500M in DWP) vs. small companies (<\$500M in DWP). Also included is the Total for each question from the year that that question was first posed in the Survey.

Company Characteristics

- **1.** What was your company's total Direct Written Premium in 2022? All replies here were received in strict confidence.
- 2. Please specify the nature of your company. (Select one)
 - Domestic (Canadian-owned company)
 65.2% Total (Large 16.5%; Small 48.7%); 66.0% Total in 2016
 - Subsidiary of a foreign parent
 19.1% Total (Large 6.1%; Small 13.0%); 19.0% Total in 2016
 - Branch of a foreign parent
 15.6% Total (Large 4.3%; Small 11.3%); 17.0% Total in 2016
- 3. At what level is your organization regulated? (Select one)
 - Federal 23.5% Total (Large 2.6%; Small 20.9%); 41.0% Total in 2018
 - Provincial 24.3% Total (Large 1.7%; Small 22.6%); 34.0% Total in 2018
 - Both 52.2% Total (Large 22.6%; Small 29.6%); 25.0% Total in 2018

Governance

4. Who has primary responsibility for your company's ERM framework? (Select one)

- CEO or Chief Agent
 - 13.0% Total (Large 0.9%; Small 12.2%); 28% Total in 2013
- Chief Risk Officer
 - 76.5% Total (Large 25.2%; Small 51.3%); 46% Total in 2013
- Chief Actuary
 - 0% Total (Large 0%; Small 0%); Option not included in 2013
- Chief Financial Officer
 - 6.9% Total (Large 0%; Small 6.9%); Option not included in 2013
- Other (Please specify)
 - 3.5% Total (Large 0.9%; Small 2.6%); 28% Total in 2013

Other responses included: Chief Compliance Officer; Branch Management Team; and Vice President, Regulatory & Compliance

- 5. Does the person with primary responsibility for managing ERM receive direction for risk management activities from a head office?
 - Yes 50.4% Total (Large 16.5%; Small 33.9%); 62% Total in 2016
 - No 49.6% Total (Large 10.4%; Small 39.1%); 38% Total in 2016
- 6. Does the person with primary responsibility for managing ERM have direct access to the Board of Directors or to the relevant Committee of the Board? (Select one)
 - Yes 94.8% Total (Large 24.3%; Small 70.4%); 86% Total in 2011
 - No 0.0% Total (Large 0.9%; Small 0%); 14% Total in 2011
 - Not applicable (e.g. foreign branch) 4.3% Total (Large 1.7%; Small 2.6%); Option not included in 2011
- 7. Is the person with primary responsibility for managing ERM part of the company's Executive Management Team?
 - Yes 83.5% Total (Large 21.7%; Small 61.7%); 75% Total in 2011
 - No 16.5% Total (Large 5.2%; Small 11.3%); 25% Total in 2011
- 8. Do ERM activities in your company help to determine executive compensation? (Select one)
 - Yes 18.2% Total (Large 7.8%; Small 10.4%); 7% Total in 2015
 - Minimally 47.8% Total (Large 13.9%; Small 33.9%); 39% Total in 2015
 - Not at all 33.9% Total (Large 5.2%; Small 28.7%); 54% Total in 2015
- 9. Does your company have a documented Enterprise Risk Management (ERM) framework or policy with established procedures?
 - Yes 96.5% Total (Large 27.0%; Small 69.5%); 87% Total in 2013
 - No 2.6% Total (Large 0%; Small 2.6%); 13% Total in 2013

10. Does your organization have a Board-approved risk appetite statement?

- Yes 95.6% Total (Large 26.1%; Small 69.5%); 51% Total in 2013
- No 4.4% Total (Large 0.9%; Small 3.5%); 49% Total in 2013

11. Has your company's ERM function been assessed by an external (independent) advisor? (Select one)

- In the last year 25.2% Total (Large 8.7%; Small 16.5%); 23% Total in 2015
- In the last 3 years 27.0% Total (Large 9.6%; Small 17.4%); 12% Total in 2015
- More than 3 years ago 13.9% Total (Large 1.7%; Small 12.2%); 0% Total in 2015
- Not assessed 33.9% Total (Large 7.0%; Small 26.9%); 65% Total in 2015

ERM framework and practices

12. Which of the following key risk categories are explicitly addressed in your company's ERM program? (Select all that apply)

- Underwriting risk Risks assumed through the insurance contracts written and reinsurance ceded by your company – 98.3% Total (Large 26.1%; Small 72.2%); 93% Total in 2011
- Credit risk Risks related to changes in the credit quality of counterparties or intermediaries to which your company is exposed (including reinsurance receivables) – 94.8% Total (Large 26.9%; Small 67.8%); 94% Total in 2011
- **Market risk** Risks that arise from volatility in financial markets, including changes in interest rates, bond and stock prices **95.6% Total** (Large 26.1%; Small 69.6%); 95% Total in 2011
- Liquidity risk Risks related to possible cash-flow shortfalls, including cash calls following major loss events, credit-rating downgrades, problems accessing financial markets **93.9% Total** (Large 26.1% Small 67.8%); 87% Total in 2011
- Operational risk Risks arising from potential deficiencies with respect to people, processes or systems in any of the risk areas noted above, as well as claims management and information technology 99.1% Total (Large 26.1%; Small 73.0%); 90% Total in 2011
- **Strategic risk** The risk of loss arising from strategic business decisions **89.6% Total** (Large 23.5%; Small 66.1%); 84% Total in 2011

13. Does your company have a formal process in place to identify new or emerging risks?

- Yes 84.3% Total (Large 23.4%; Small 60.9%); 68% Total in 2016
- No 15.7% Total (Large 3.5%; Small 12.2%); 32% Total in 2016

14. Does your company consider ERM to be primarily: (Select one)

- A regulatory compliance exercise
- 3.5% Total (Large 0%; Small 100%); 19% Total in 2015
- Accepted by the business
 25.2% Total (Large 7.8%; Small 17.4%); 41% Total in 2015
- Highly embedded in the business and valued by Senior Management and Board of Directors (or equivalent)
 - 71.3% Total (Large 19.1%; Small 52.2%); 40% Total in 2015

15. Which of the following impacts are considered in your company's ERM framework while assessing risk? (Select all that apply)

- Potential impact on income/earnings
 93.9% Total (Large 27.0%; Small 66.9.0%); 92% Total in 2015
- Potential impact on regulatory capital
 97.4% Total (Large 26.1%; Small 71.3%); 94% Total in 2015
- Reputational impact **95.6% Total** (Large 27.0%; Small 68.6%); 79% Total in 2015

16. How broadly has your company communicated principles in its risk appetite statement? (Select all that apply)

- Communicated to the Board
 94.8% Total (Large 25.2%; Small 69.6%); 95% Total in 2015
- Communicated internally to senior management
 95.7% Total (Large 26.1%; Small 69.6%); 92% Total in 2015
- Communicated internally to all employees
 37.4% Total (Large 12.2%; Small 25.2%); 14% Total in 2015
- Communicated externally
 26.9% Total (Large 8.7%; Small 18.2%); 15% Total in 2015

17. Does your company maintain a risk profile of all of the material risks identified by the company?

- Yes 93.9% Total (Large 27.0%; Small 66.9%); 79% Total in 2011
- No **5.2% Total** (Large 0%; Small 5.2%); 21% Total in 2011
- (If No, please skip to question #19)

18. Does your company's risk profile address the following? (Select all that apply)

- Information relating to each risk (including causes and triggers), existing management practices or controls?
 - 92.2% Total (Large 27.0%; Small 65.2%); 83% Total in 2011
- Person(s) primarily responsible for managing each risk?
 83.5% Total (Large 22.6%; Small 60.9%); 75% Total in 2011
- Prioritization of individual risks based on the ratings assigned?
 84.3% Total (Large 23.4%; Small 60.9%); 76% Total in 2011
- Action plans to mitigate priority risks?
 86.1% Total (Large 25.2%; Small 60.9%); 81% Total in 2011

19. How does your company manage enterprise risks (for example, as related to economic capital)? (Select one)

- Forms an aggregated measure of its enterprise risks
 0.9% Total (Large 0%; Small 0.9%); 10% Total in 2011
- Manages risks individually
 22.6% Total (Large 2.6%; Small 20.0%); 48% Total in 2011
- Both -- forms aggregated measure of its enterprise risks and manages risks individually
 - **75.6% Total** (Large 24.3%; Small 51.3%); 42% Total in 2011

20. Which of the following methodologies and techniques does your company use to assess risk? (Select all that apply)

- Key risk indicators 92.2% Total (Large 26.1%; Small 66.1%); 86% Total in 2015
- Loss event data 85.2% Total (Large 27.0%; Small 58.2%); 62% Total in 2015
- Economic capital modelling 75.7% Total (Large 23.5%; Small 52.2%); 48% Total in 2015
- Facilitated workshops 57.4% Total (Large 19.1%; Small 38.3%); 41% Total in 2015
- Interviews **73.9% Total** (Large 22.6%; Small 51.3%); 52% Total in 2015
- Other 9.6% Total (Large 3.5%; Small 6.1%); Option not included in 2015 Other responses included: Swiss Solvency Test (SST); Disaster Scenarios; ORSA; Sensitivity Analysis; Industry Data; Third-Party Software; Head Office Capital Modeling; and Geopolitical Risk

21. Which area of your company leads the review of new products and lines of business prior to launch?

- Underwriting 54.8% Total Large 15.7%; Small 39.1%);
 Option not included in 2015
- Corporate Actuarial 2.6% Total (Large 0%; Small 2.6%); 47% Total in 2015
- Enterprise Risk Management 17.4% Total Large 4.3%; Small 13.0%); 40% Total in 2015
- Finance **1.7% Total** (Large 0%; Small 1.7%); 47% Total in 2015
- Legal 1.7% Total (Large 0%; Small 1.7%); 27% Total in 2015
- Other 18.3% Total (Large 6.9%; Small 11.3%); Option not included in 2015 Other responses included: Markets Division; Cross-Functional Product Launch Team; Steering Committee; Business Operations Control; Operations/IT/ Compliance; Process Analytics Team; Pricing Analytics; Leadership Team/Board; CEO; Portfolio Management; and No Established Process for This

22. Does your company systematically quantify the operational risks deemed material to the organization?

- Always 18.3% Total (Large 5.2%; Small 13.0%); 20% Total in 2015
- When possible 72.2% Total (Large 20.0%; Small 52.2%); 65% Total in 2015
- Never 7.8% Total (Large 1.7%; Small 6.1%); 15% Total in 2015

23. Does your company employ business continuity planning for the entire organization?

- Yes 93.9% Total (Large 27%; Small 66.9%); 88% Total in 2016
- No 6.1% Total (Large 0%; Small 6.1%); 12% Total in 2016

24. If your answer to Question 23 was Yes, how often do you test business continuity?

- Once a year 76.5% Total (Large 23.5%; Small 53.0%); 45% Total in 2015
- Every 2-3 years **5.2% Total** (Large 1.7%; Small 3.5%); 11% Total in 2015
- Every 3-5 years **3.5% Total** (Large 0.9%; Small 2.6%); 15% Total in 2015
- Ad hoc basis 9.6% Total (Large 0.9%; Small 8.7%); 29% Total in 2015

25. If your answer to Question 23 was Yes, how often do you test disaster recovery?

- Once a year **79.1% Total** (Large 25.2%; Small 53.9%); 67% Total in 2016
- Every 2-3 years **6.1% Total** (Large 0.9%; Small 5.2%); 11% Total in 2016
- Every 3-5 years **1.7% Total** (Large 0.9%; Small 0.9%); 4% Total in 2016
- Ad hoc basis **8.7% Total** (Large 0%; Small 8.7%); 16% Total in 2016

26. Does your company have a cyber protection plan in place for the entire organization?

- Yes 96.5% Total (Large 27.0%; Small 69.6%); 89% Total in 2016
- No 3.5% Total (Large 0%; Small 3.5%); 11% in 2016

27. If your answer to Question 26 was Yes, how often is this cyber protection plan tested?

- Once a year 48.7% Total (Large 12.2%; Small 36.5%); 47% Total in 2016
- Every 2-3 years 20.0% Total (Large 6.9%; Small 13.0%); 5% Total in 2016
- Every 3-5 years 0% Total (Large 0%; Small 0%); 5% Total in 2016
- Ad hoc basis 27.8% Total (Large 7.8%; Small 20.0%); 44% Total in 2016

Own Risk and Solvency Assessment (ORSA) and Economic Capital

28. In your company, is the Chief Risk Officer or head of ERM responsible for ORSA?

- Yes 89.6% Total (Large 25.2%; Small 64.3%); 82% in 2018
- No 6.9% Total (Large 0.9%; Small 6.0%); 16% in 2018

29. Has your company engaged external resources to assist in completing and/or reviewing its ORSA?

- Yes 51.3% Total (Large 12.2%; Small 39.1%); 42% Total in 2015
- No 48.7% Total (Large 14.8%; Small 33.9%); 58% Total in 2015

30. Does your company use its ORSA results for: (Select all that apply)

- Capital management 87.8% Total (Large 21.7%; Small 66.1%); 70% Total in 2016
- Insurance pricing 21.7% Total (Large 6.9%; Small 14.8%); 9% Total in 2016
- Executive compensation 2.6% Total (Large 0.9%; Small 1.7%); 0% Total in 2016
- ERM 83.5% Total (Large 24.3%; Small 59.1%); 75% Total in 2016
- Inform strategic planning 58.3% Total (Large 17.4%; Small 40.9%); 45% Total in 2016
- Other 15.6% Total (Large 4.3%; Small 11.3%); Option not included in 2016 Other responses included: Risk Adjustment; Reinsurance Planning/Renewal; Asset and Capital Structure Optimization; Stress Testing and Risk Reporting; Regulatory Reporting; and Do Not Currently Use ORSA

31. Does your company use an Economic Capital Model on a regular basis?

- Yes **59.1% Total** (Large 20.0%; Small 39.1%); 31% Total in 2015
- No **35.6% Total** (Large 5.2%; Small 30.4%); 69% Total in 2015

32. If your answer to Question **31** was Yes, for what purpose does your company use Economic Capital Model results? (Select all that apply)

- Capital management 56.5% Total (Large 20.9%; Small 35.6%); 89% Total in 2015
- Insurance pricing 18.3% Total (Large 6.1%; Small 12.2%); 42% Total in 2015
- Executive compensation 0% Total (Large 0%; Small 0%); 16% Total in 2015
- ERM 40.0% Total (Large 13.9%; Small 26.1%); 79% Total in 2015
- Inform strategic planning 37.4% Total (Large 12.2%; Small 25.2%); Option not included in 2015
- Other **9.6% Total** (Large 3.5%; Small 6.1%); Option not included in 2015 Other responses included: Risk Adjustment; Reinsurance Renewal; and Asset and Capital Structure Optimization

Tools and Resources

33. What technological tools currently support (that is, identify, analyze and report) risk management activities in your company? (Select all that apply)

- In-house developed applications 40.9% Total (Large 12.2%; Small 28.7%); 36% Total in 2015
- Excel/MSOffice suite 95.6% Total (Large 24.3%; Small 71.3%); 85% Total in 2015
- Third-party applications 51.3% Total (Large 17.4%; Small 33.9%); 38% Total in 2015
- Other **6.1% Total** (Large 3.5%; Small 2.6%); Option not included in 2015 Other responses included: MS Forms; iCare; Qlik; External Actuary; and Financial Condition Testing (FCT) Model

34. How many full-time equivalent (FTE) employees are assigned to your company's risk management function?

- Larger company average **10.11 FTE employees** (7.25 FTE employees in 2017)
- Smaller company average **1.54 FTE employees** (1.50 FTE employees in 2017)

35. What are your company's plans for 2023 regarding resources in the ERM function? (Select one)

- Planning to increase headcount or allocation to external resources
 34.8% Total ((Large 7.8%; Small 27.0%); 20% Total in 2015
- Planning to decrease headcount or allocation to external resources
 0% Total (Large 0%; Small 0%); 0% Total in 2015
- No changes planned to headcount or allocation to external resources
 64.3% Total (Large 19.1%; Small 45.2%); 80% Total in 2015

36. What are your company's plans for 2023 regarding tools in the ERM function? (Select one)

- Planning to increase investment in tools
 22.6% Total (Large 7.0%; Small 15.6%); 24% Total in 2015
- Planning to decrease investment in tools
 0% Total (Large 0%; Small 0%); 0% Total in 2015
- No changes planned to investment in tools
 76.5% Total (Large 20.0%; Small 56.5%); 76% Total in 2015

37. Have you, or your company's designate, participated regularly in Risk Officer's Forum meetings and/or Emerging Risks Webinars during 2022?

- Yes 91.3% Total (Large 27.0%; Small 64.3%); 37% Total in 2015
- No 6.9% Total (Large 0%; Small 6.9%); 63% Total in 2015

New and Emerging Risks

38. With the emergence of new/developing artificial intelligence technology, and OSFI's increasing risk management reporting requirements, how is your organization managing Model Risk? (New question in 2023)

- No changes in approach planned at this time 33.0% Total (Large 3.5%; Small 29.5%)
- New model risk management framework is being/has been developed **56.5% Total** (Large 21.7%; Small 34.8%)
- Additional headcount will be added to manage additional model risk regulatory requirements **9.6% Total** (Large 1.7%; Small 7.8%)

39. Given the growing industry concerns regarding the control and impact of external risks, how is your organization managing third-party risk? (New question in 2023)

- No changes in approach planned at this time 30.4% Total (Large 5.2%; Small 25.2%)
- New third-party risk management framework is being/has been developed
 60.8% Total (Large 19.1%; Small 41.7%)
- Additional headcount will be added to manage additional third-party risk regulatory requirements **7.8% Tota**l (Large 2.6%; Small 5.2%)

40. What are three emerging risks confronting your company over the next 1-3 years?

20	23		2021	
1.	Climate change	17.5%	1. Cyber security	24.9%
2.	Cyber security	15.7%	2. Climate change	16.4%
3.	Technological change/Al	12.3%	3. Human resources	8.2%
4.	Economic uncertainty	11.1%	 Technological change /Digitalization 	7.0%
5.	Government regulation	9.5%	5. Government regulation	5.3%
6.	Human resources (Attract/Retain)	7.4%	6. Pandemic/COVID-19	5.0%
7.	Environment (Hazardous Chemicals)	4.9%	6. Class action/Litigation	5.0%

40. What are three emerging risks confronting your company over the next 3-10 years?

2023		2021	
1. Climate change	24.6%	1. Climate change	26.0%
2. Technological change/Al	21.5%	2. Cyber security	15.6%
3. Cyber security	11.8%	 Technological change /Digitalization 	11.7%
4. Geopolitical risk	6.1%	4. Autonomous vehicles	9.6%
5. Human resources (Attract/Retain)	5.4%	5. Strategic innovation	5.1%
6. Customer expectations	4.4%	 Industry consolidation /Competitiong 	4.8%
7. Government regulation	3.0%	6. Human resources	4.8%

Property and Casualty Insurance Compensation Corperation

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