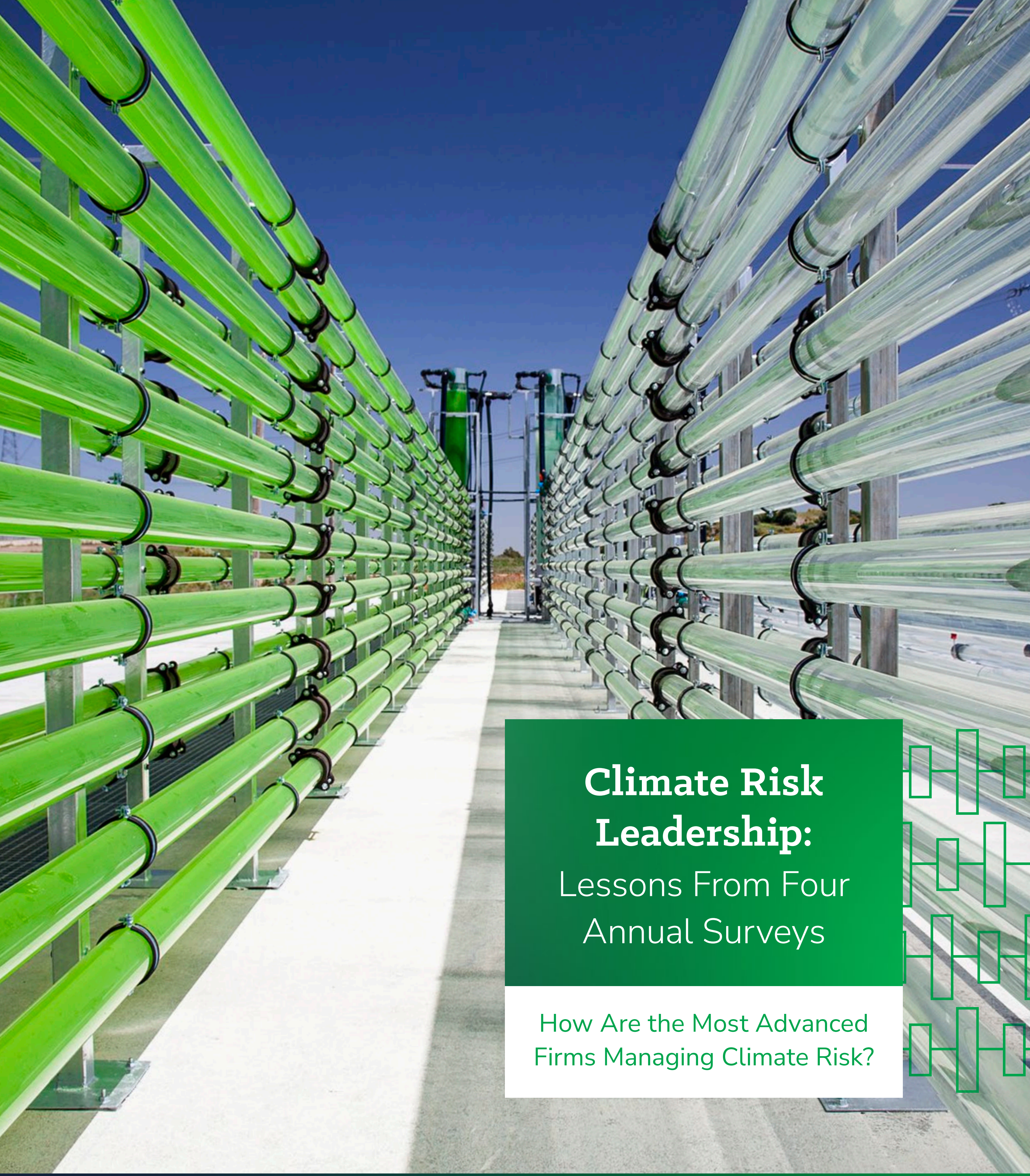


Climate Risk Leadership:

Lessons From Four Annual Surveys

How Are the Most Advanced Firms Managing Climate Risk?

GARP®
GRI | Risk Institute

Contents

Cover Photo: Tubular bioreactors filled with green algae fixing CO_2, Arcos de la Frontera, Cadiz, Costa de la Luz, Andalusia, Spain. Credit: Getty Images

Introduction

Climate risk management at financial institutions has progressed over the past four years, as the risks and opportunities of climate change have become more and more well-understood. However, differences remain between the most advanced firms — or leading firms — and others that have moved at a slower pace.

In this paper, we examine trends from 2019-2022 to offer a holistic view of how practices at the leading firms have evolved over time — both in their own right and relative to the firms in the rest of the distribution. We focus on two key questions: (1) What differentiates practices at these leading firms relative to the others, and how has this changed since 2019? (2) Are there lessons from these practices that others can use to advance their climate risk management?

IN THIS PAPER, WE HIGHLIGHT THE BEST PRACTICES IMPLEMENTED BY CLIMATE RISK MANAGEMENT LEADERS AND OUTLINE THE STEPS OTHERS CAN TAKE TO JOIN THEM.

Background

Across the past four years, from 2019-2022, the GARP Risk Institute (GRI) has conducted an annual Global Climate Risk Survey ("Survey") of financial institutions' climate risk management practices. The voluntary survey captured six key dimensions of firms' climate risk management: governance; strategy for dealing with actual and potential climate risks; approach to risk management; the metrics, targets, and limits used to assess and manage climate risks and opportunities; the use of climate scenario analysis; and climate risk disclosures.

Each survey examined the distribution of climate risk management maturity levels of the participating firms. After being scored up to a maximum of 100 for each of the dimensions, the firms were ranked by their total score. This provided valuable benchmarking information for participating firms by allowing them to see where they stand in terms of their maturity and approach, relative to others.

The GARP surveys have occurred during a time when regulatory interest in climate risk management has grown from minimal to extensive. The 2019 Survey described how firms had made a good start, but that there was a lot more work to do. The 2020 Survey mapped out firms' continuing journey, while the 2021 Survey reported on the emergence of a growing sophistication across the firms and improvement in quantifying climate-related risks. The 2022 Survey confirmed this trend, but also highlighted the increase in regulatory scrutiny and formal expectations.

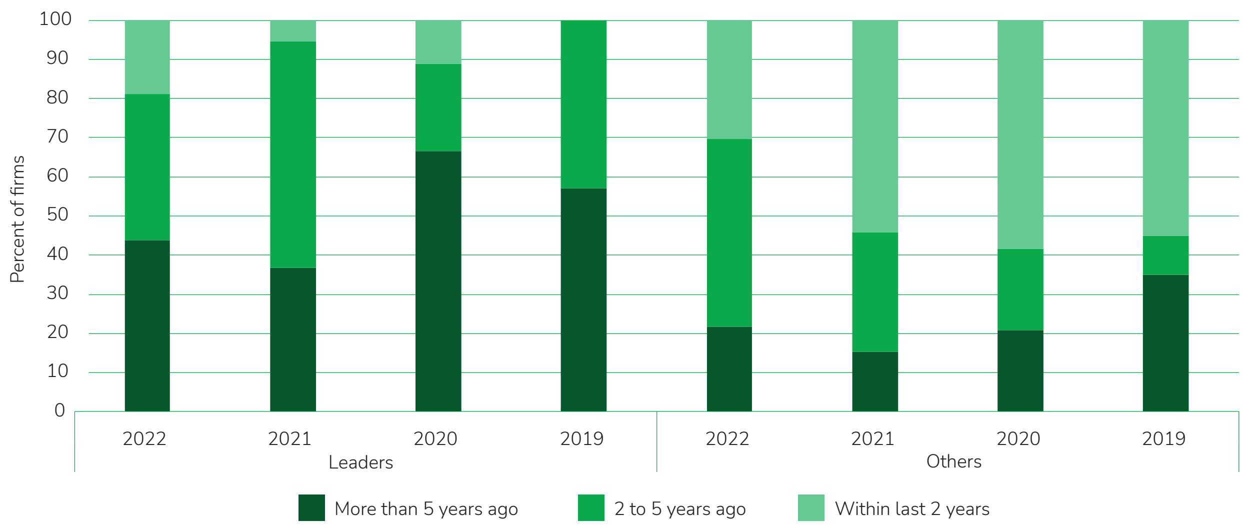
At GARP, we are particularly interested in the leading practices that are being established. Based on the 2021 and 2020 surveys, we undertook two previous analyses of the firms that scored in the top 25% of all respondents — which we refer to as the "climate risk leaders." Those in the bottom 75% are simply referred to as the "other firms."

In response to emerging trends, the Survey questions and underlying maturity model have changed somewhat year-on-year. That means that the charts included in this report will sometimes span different periods, according to the availability of time series.

When we assess trends, any year-on-year comparisons will therefore reflect a mixture of both evolving practices at firms and changes in the population of participating firms. For example, the experience levels of firms in each year will differ.

As Figure 1 shows, the leading firms tend to have more experience than the others, but the mix of experience also differs across the years of the survey. Care needs to therefore be taken when making year-on-year comparisons.

Figure 1: When Was Climate Risk First Introduced?



Key Takeaways

Before we delve deeper, here are our most important findings:

- Climate risk "leaders" are more advanced in all six dimensions covered by our survey, but practices in each risk dimension are improving for all firms, with the gap narrowing over the past four years. The gap is smallest in those areas that we have called the "foundations" — governance, strategy, and risk management. It remains the widest in the more quantitative areas, which we have called "the next steps," such as metrics, targets, and limits; scenario analysis; and disclosures.
- Boards at leading firms are discussing climate risk more and have access to better information: nearly 90% of leaders' boards have seen climate-related papers at least four times a year — a frequency matched by just 65% of others' boards. Moreover, leaders' boards are over twice as likely to see climate-related dashboards regularly.
- Leading firms assess climate-related risks and opportunities more comprehensively, reviewing more aspects of their business, and over longer time periods. The leaders are also more likely to be offering different types of products and services to take advantage of the commercial opportunities that climate change raises.
- The number of other firms that use scenario analysis to understand the impact of climate-related risk has grown significantly, rising from 35% in 2019 to around 75% in 2022. Since 2020, 100% of leaders have used scenario analysis.
- Due diligence at leading firms is more comprehensive than at other firms, but the gap with the others is narrowing a little. Leaders' assessments are nearly twice as likely to be quantitative (both for physical and transition risk, and portfolio alignment) and they are more than twice as likely as the others to assess whether an exposure to a particular counterparty will help meet alignment goals.
- Almost all leaders (94%) have taken mitigating actions in response to their counterparties' transition risk, with the most common actions being increased engagement, requesting transition plans, and reducing exposure. These were also the most common actions taken by the other firms, but at a substantially lower rate.
- Nearly 90% of leaders have a climate risk appetite statement, around double the rate for the others.
- Leaders provide a lot more climate-risk-related training to all groups within their firms, and especially to boards, senior management, management, finance, audit, and legal functions. More than half of the leading firms expect to increase their climate staffing levels significantly over the next two years, compared with a third of the others.
- All leaders use metrics and targets, and the majority of them use limits. The use of all three, meanwhile, has been rising among the other firms over the past three years.

THE GAP BETWEEN THE LEADERS AND THE OTHERS IS SUBSTANTIALLY WIDER IN THE QUANTITATIVE AREAS, INCLUDING SCENARIO ANALYSIS, DISCLOSURES, AND METRICS, TARGETS, AND LIMITS.

An Overview of Progress

Practices in each risk dimension are improving over time, for both the leading firms and the other firms, as can be seen in Figure 2. This is perhaps not surprising, as both individual firms and the broader industry are learning by doing, gaining experience, and improving naturally over time.

Figure 2: Average Climate Risk Score per Dimension

Note: There are some breaks in the series. First, risk management was not included as a separate dimension in the 2019 survey. Second, greater granularity was introduced for the disclosure questions from 2020, allowing for a better capture of disclosure quality from that date, and accounting for the drop in scores in 2020. In 2022, additional aspects of governance were scored, accounting for the dip in scores that year.

It is interesting to look at the differences between the leaders and other firms. In some areas there is not a major difference between the performance of the leaders relative to the others. In our previous analyses of the leading firms, we have referred to these elements as the "Foundations," and they comprise governance, strategy, and risk management. These are the areas where all firms tend to focus their attention initially, when setting up their climate risk management approaches.

The dimensions where there are more significant gaps between the leaders and others tend to be the more quantitative areas of metrics, targets, and limits; scenario analysis; and disclosures. These so-called "next steps" are the areas which firms progress to once they reach a certain level of maturity.

This distinction has stood the test of time, with the largest gaps remaining in the next steps. Keeping this in mind, we can map out a journey that a firm might take when establishing climate risk management.

Firms typically start with governance, to ensure they have the right structures and processes in place to agree on a strategy and to commit the right resources to its execution. Risk management is also a priority, partly because of the real risks that are emerging but also because of supervisory expectations.

Disclosures, which reflect firms' maturity, are the next step in the climate risk journey. The hardest, more quantitative elements — setting metrics, targets, and limits and performing scenario analysis — are the last pieces of the puzzle that need to be completed.

In each year of the survey, the leaders have scored higher than other firms in all of the risk dimensions. (Across all categories in Figure 2, the green bars are taller than the black/grey ones). But the gap has tended to narrow over time — partly due to improvements in practices and partly because the leaders have reached the top scores available, leaving no headroom for improvement in the survey. From 2020 to 2022, for example, the absolute gap between the leaders and others narrowed for all dimensions except scenario analysis, where the leaders and others have improved in tandem.

The rest of this paper takes a close look at key differences between the leaders and the others, for each of the six risk dimensions.

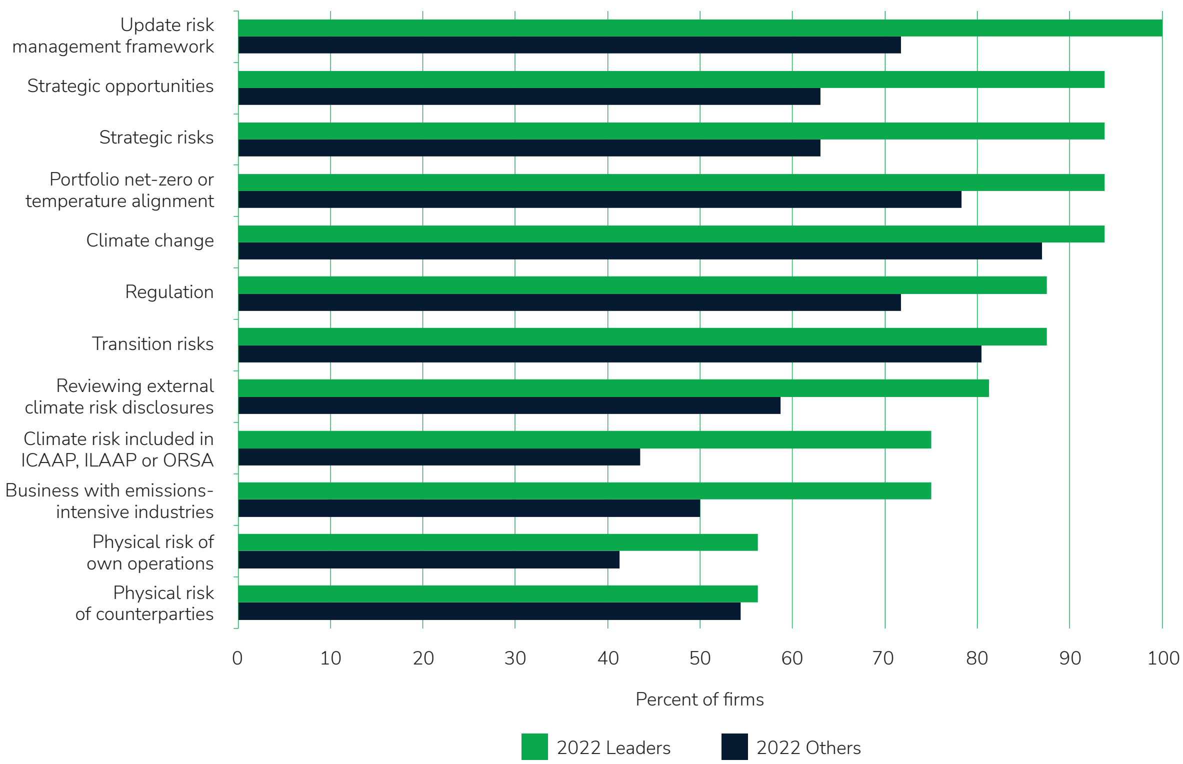
Governance

Climate risk governance, like all risk governance, starts at the top of an organization. We find that nearly all firms have board-level governance, with little difference between the leaders and other firms.

In contrast with 2021, where 12% of the other firms delegated it below the C-Suite, practically all firms now have C-level accountability for climate risk. But leaders and others do differ in the frequency of engagement and in the range of topics covered. In the 2022 survey, nearly 90% of the of leading firms' boards reported seeing climate-related papers at least four times a year — a frequency matched by just 65% of boards at the other firms.

Annually, there are always some differences in the topics which the boards of leading and other firms are discussing. In 2022, for example, 100% of the leading firms' boards discussed the update of their risk management frameworks to include climate risk, compared with 72% at other firms (Figure 3).

Figure 3: Topics Discussed by Boards in 2022



Leaders have maintained their edge on discussions around strategic risks and opportunities, as well as in incorporating climate risks in their capital assessments (ICAAP, ILAAP, or ORSA). The gap is closing fastest for areas associated with climate risk mitigation (e.g., transition risks, portfolio net-zero or temperature alignment, and firms' approach to business with emissions-intensive industries), suggesting an improvement in the level of oversight by boards at the other firms.

In the 2022 survey, following GARP's collaboration with the United Nations Environment Programme Finance Initiative (UNEP FI) on building board-level climate dashboards for banks, we added a question about the sorts of dashboards that firms' boards were seeing.

Boards at leading firms were found to be more likely to see climate-related dashboards, with 75% seeing them regularly, compared with 30% at the other firms. The leaders' dashboards are also more comprehensive, and more often cover issues such as portfolio alignment, disclosures, regulatory issues, and the climate risks to which a firm is exposed.

Strategy

Strategic clarity is essential for effective climate risk management. Establishing clarity requires both a review of the scope for climate-related risks or opportunities (at different time periods) and an assessment of how different aspects of the firm will be impacted (Figure 4).

Figure 4: Business Aspects Assessed for Climate-Related Risks and Opportunities

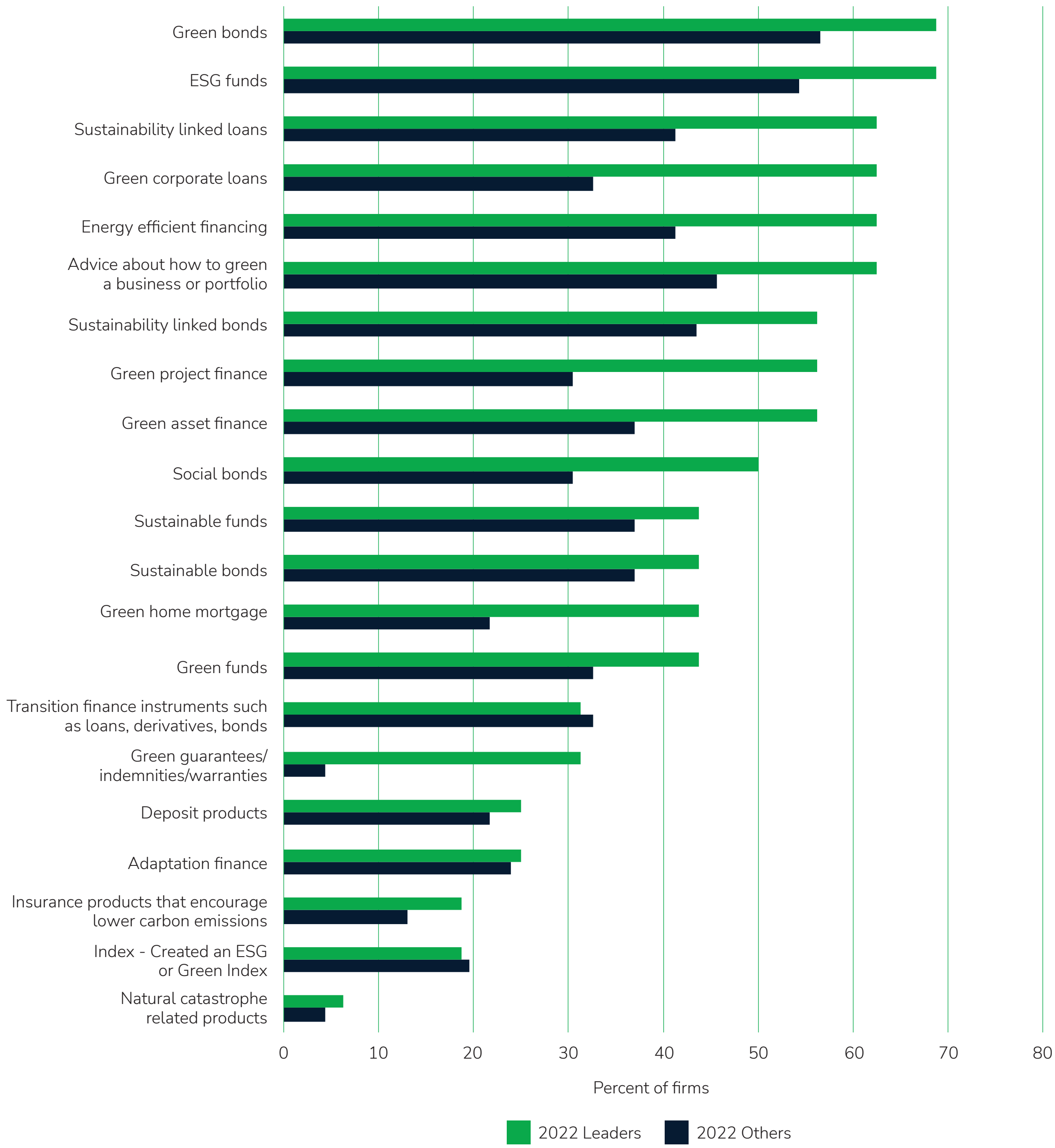
Leading firms tend to be more comprehensive in their assessments. They're more likely to look at climate-related risks and opportunities over longer time periods — as well as to expect that they will be significant over all time periods.

Interestingly, after performing these assessments, the leaders tend to be more optimistic that their strategy is resilient to climate-related risks beyond five years. This confidence might stem from having been more advanced than the others in their assessment of impacts across different business aspects.

The gap between leaders and others is particularly pronounced with respect to reviewing the impacts on financial/corporate planning and business targets. Leaders, moreover, hold an edge in the assessment of climate-related risks and opportunities across all other business aspects, but the other firms have made up ground over the past two years.

Leading firms are also more likely to take advantage of the commercial opportunities that climate change raises, via developing different types of products and services — from sustainability-linked loans to green corporate loans and green home mortgages (Figure 5).

Figure 5: Product Innovation in Leading and Other Firms in 2022



Risk Management

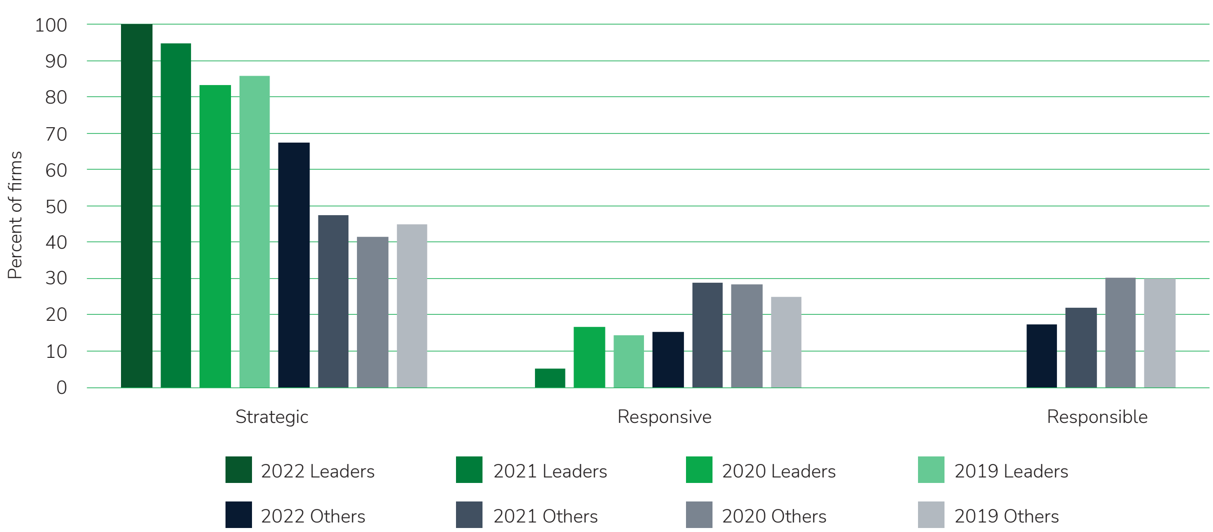
Over the past four years, we have seen most firms become more ambitious about their climate risk management. Leaders have always favored the most progressive approach, while the others have steadily shifted away from the least advanced method. (See box below for definitions.).

Using terminology borrowed from the Bank of England, we asked firms to specify whether their approach to climate risk management was "responsible," "responsive," or "strategic," with each category corresponding to different levels of maturity.

- **Responsible** is an approach driven primarily by corporate social responsibility (CSR), focusing on reputational risks.
- **Responsive** means that climate change is viewed as a financial risk, albeit from a relatively narrow, short-term perspective.
- **Strategic** implies a more comprehensive approach, taking a long-term view of the financial risks, with board engagement.

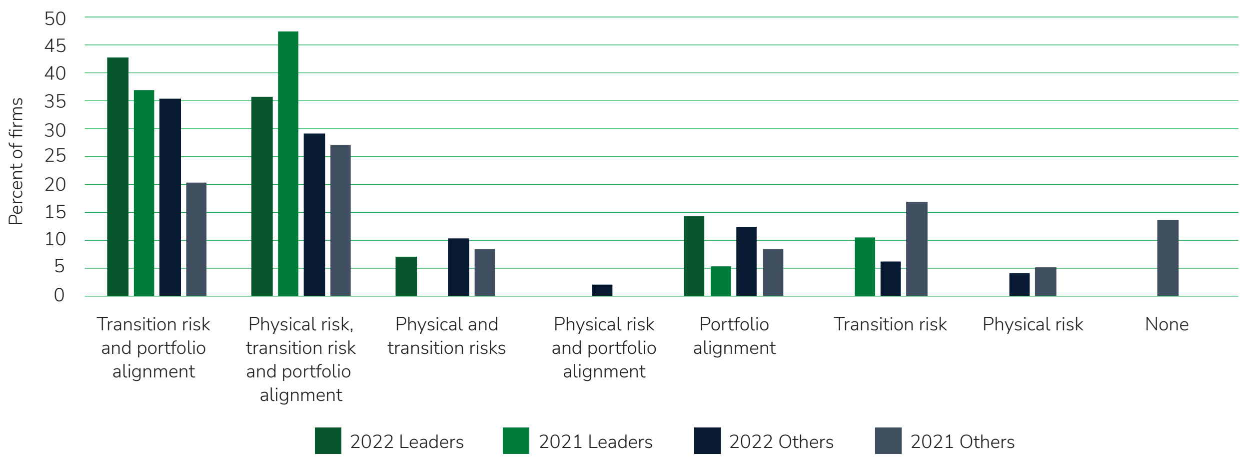
In 2022, all the leaders took a comprehensive or "strategic" approach to climate-related risk. While just under 70% of the other firms now have this level of ambition, this number has risen considerably over the past four years. About a third of the others in 2022 had either a responsible or responsive approach. Interestingly, the leaders have never settled for the most basic ("responsible") approach (Figure 6).

Figure 6: Approach to Climate Risk



Over the past two years, we have asked firms which types of climate risk they prioritize: physical, transition, or portfolio alignment to net-zero or temperature targets. In both years, the leading firms were more likely to concentrate on multiple types. That said, there is now a greater focus on transition risk and portfolio alignment at both leading and other firms (Figure 7). This may reflect the growing focus on the transition to net zero and the increasing number of firms making net-zero commitments.

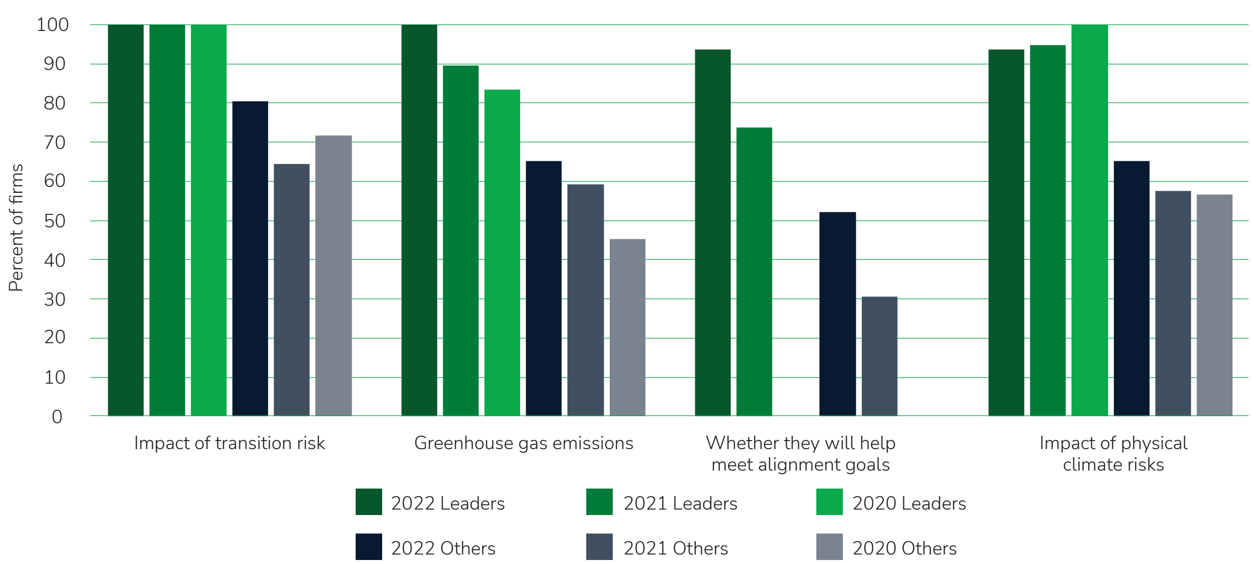
Figure 7: Climate Risk Priorities Across Firms



A sensible way to integrate climate risk into risk management is to embed it in due diligence processes. Due diligence at leading firms has been more comprehensive than at other firms over the past three years, but the gap is narrowing a little.

All leading firms have assessed the transition risk of their counterparties since 2020, and there has been a steady rise in the proportion assessing greenhouse gas emissions. Overall, in 2022, the most significant gap between leaders (94%) and others (52%) is assessing whether exposure to a particular counterparty will help the firm meet its alignment goals. Leaders' assessments are also nearly twice as likely to be quantitative — not only for physical and transition risk but also for portfolio alignment.

Figure 8: Due Diligence of Counterparties' Climate Risk Coverage



In the 2022 survey, we asked for the first time about mitigating actions firms have taken in response to due diligence. Almost all leaders (94%) have taken mitigating actions in response to their counterparties' transition risk, and most have done the same for their counterparties' physical risk and for portfolio alignment — with the most common actions being increased engagement, requesting transition plans, and reducing exposure. These were also the most common actions taken by the other firms, but at a substantially lower rate.

There are other differences in climate risk management at leading and other firms. For example, 88% of leaders have a climate risk appetite statement, considerably higher than the 48% of others that have one. This is perhaps not surprising as overall leaders have more, and better, processes for managing climate risk. The leaders also provide more climate-risk-related training to all groups within their firms, and especially to boards, senior management, management, finance, audit, and legal functions.

Last year, we argued leaders were probably more advanced in their climate risk management because they were subject to more regulatory scrutiny. But this gap has narrowed considerably in 2022, with a higher proportion of other firms (87%) being subject to regulations. (Leaders were at 94%.)

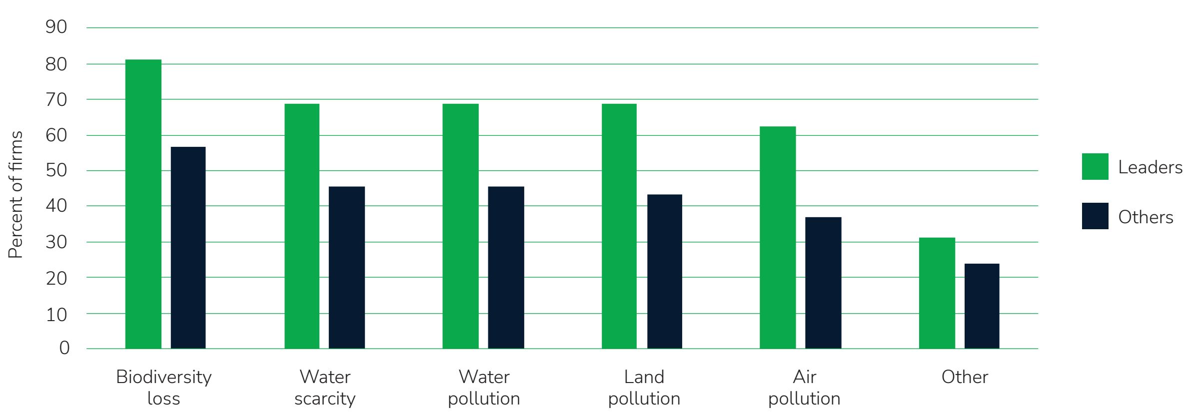
Moreover, while the leaders were nearly twice as likely as others to be participating in a regulatory climate risk stress test in 2021, that gap in 2022 (70% of leaders versus 50% of others) has also narrowed substantially. Nevertheless, it is interesting that over half of the leading firms expect to increase their climate staffing levels significantly over the next two years, compared with a third of the others. Perhaps this is a sign that the leaders intend to maintain their edge.

Other Environmental Risks

In light of the growing awareness of the interconnections between climate change and broader environmental risks, we included questions about environmental risks for the first time in 2022. These questions were not included in the maturity model, but provided useful data about emerging trends.

We found that a slightly higher percentage of leaders (88%) have looked at these broader environmental risks in comparison to others (72%), but the leaders were much more likely to have looked at a wider range of these risks. In terms of specific risks considered, the most popular for all firms was biodiversity loss (Figure 9).

Figure 9: Other Environmental Risks Considered by Firms in 2022



Fifty percent of leaders have looked at the impact of other environmental risks on their portfolio and their portfolio's impact on the environment, compared with 28% of others. Leaders also performed more materiality assessments of other environmental financial risks.

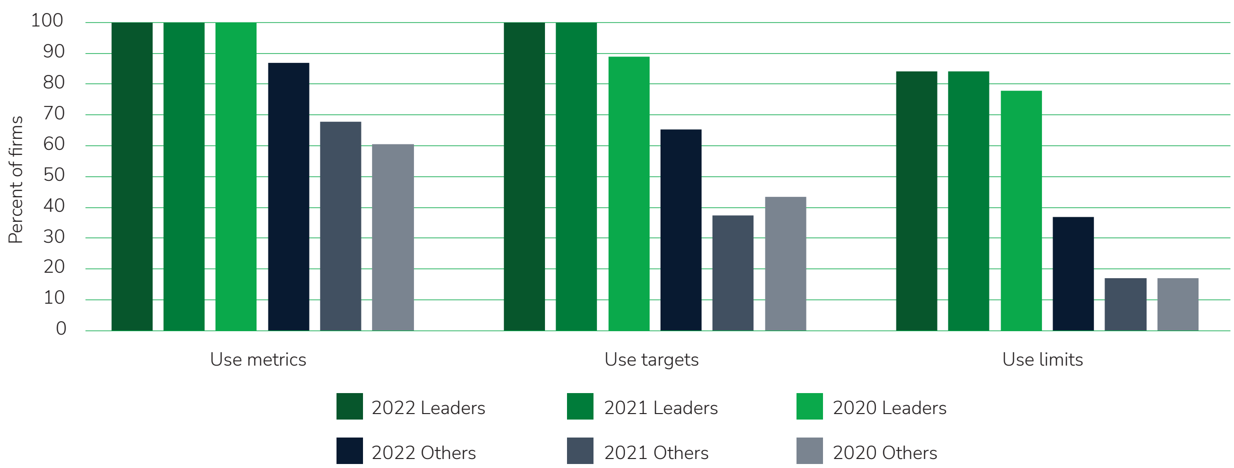
Metrics, Targets, and Limits

For the Survey, these terms were defined as follows:

- A metric is a measure used to assess climate risk.
- A target is the outcome the organization aims to achieve.
- Limits represent the worst outcome the organization is prepared to accept without taking corrective action.

All leaders use metrics and targets, and the majority of them use limits. Meanwhile, across the other firms, the use of all three has been rising over the past three years (Figure 10).

Figure 10: Metrics, Targets, and Limits Usage



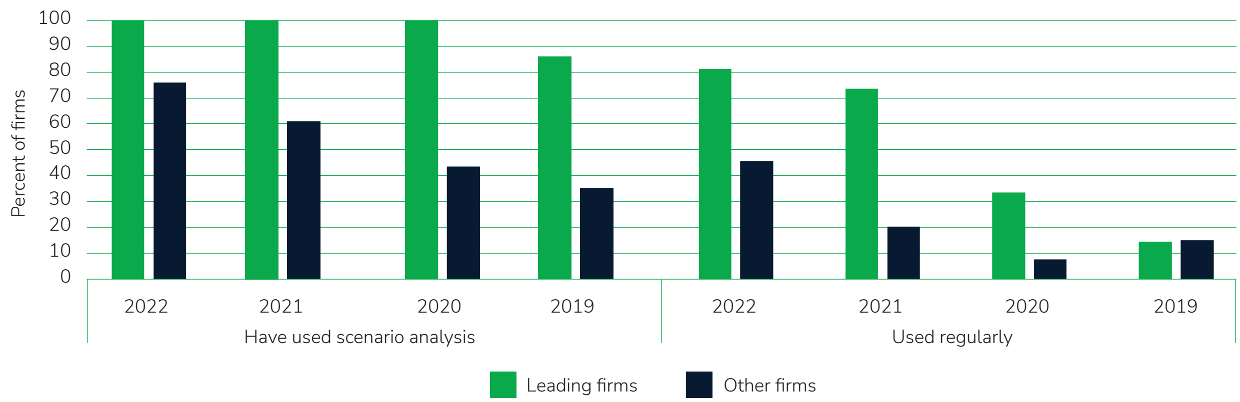
Metrics, targets, and limits are used for different purposes, with leaders using them more extensively (e.g., for managing asset risks and for meeting their fiduciary duties) than the others. Leaders are also more advanced at embedding them within their organizations. For example, all of the leaders' metrics are aligned with the strategy of their organizations and are part of the risk management framework (Figure 11).

Figure 11: Alignment of Metrics, Targets, and Limits

Scenario Analysis

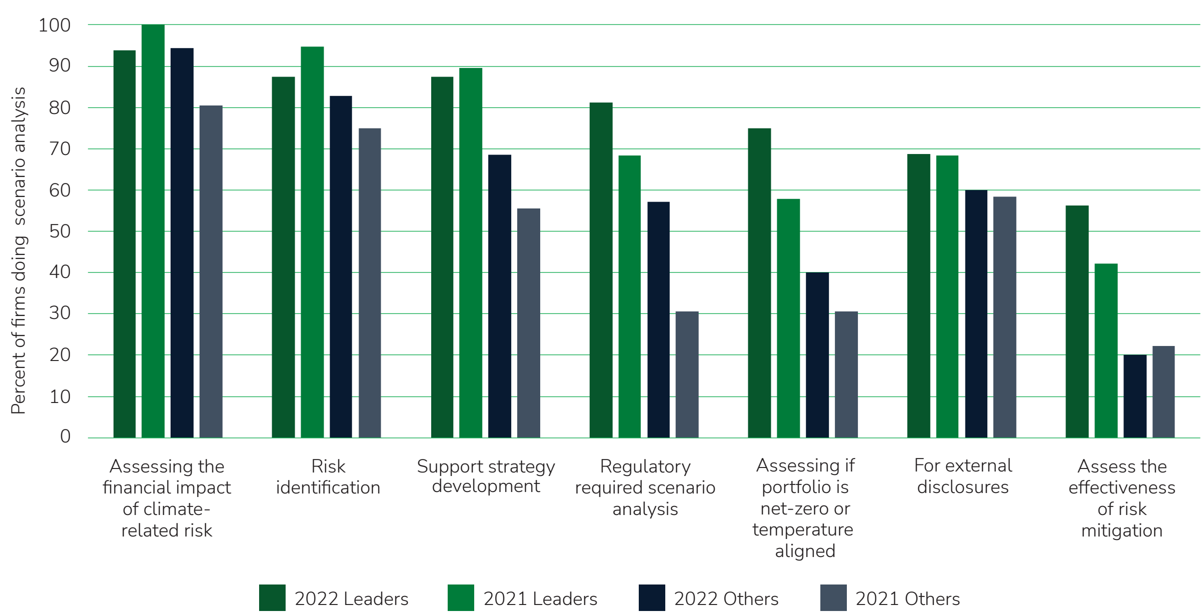
Over the past three years, all leaders have used scenario analysis to understand the impact of climate-related risk on the portfolios or balance sheet of their organizations. It's encouraging to see the steady rise in the proportion of other firms using it, from 35% in 2019 to around 75% in 2022 (Figure 12). Leading firms are, however, still much more likely to use scenario analysis regularly.

Figure 12: Frequency of Firms' Scenario Analysis



Firms undertake scenario analysis for a range of reasons, with the most common being (1) assessing the financial impact of climate-related risk; (2) risk identification; and (3) supporting strategy development (Figure 13). Leading firms appear to use scenario analysis for a broader range of reasons, and they used it substantially more often than other firms to assess both the alignment of a portfolio and the effectiveness of risk mitigation.

Figure 13: Reasons for Undertaking Scenario Analysis



All the leaders are using scenario analysis to assess both physical and transition risks, compared with 70% of the others. The majority of the leaders are also assessing portfolio alignment, as opposed to over one-third of the others.

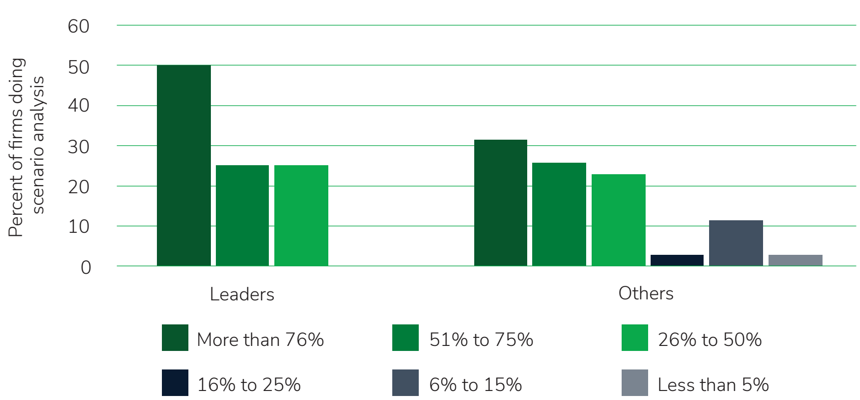
Leaders are getting more value out of their scenario analysis by being more likely to both evaluate and act on the analysis. For example, in 2022, all leaders evaluated whether action should be taken, compared with only around a third of the other firms (up from 90% and 25%, respectively, in 2021). Furthermore, leaders have consistently been more likely to take a range of actions over the four years of the survey, such as improving their disclosures, changing their risk management, altering portfolio composition, updating products or services, and revising their strategy (Figure 14).

Figure 14: Actions Taken After Doing Scenario Analysis

In 2022, the Network for Greening the Financial System (NGFS) scenarios were the most widely used across financial firms and their supervisors, with the disorderly transition NGFS scenario ranking as the single most used across all firms.

Leading firms employ a more diverse range of scenarios, and, according to the 2022 Survey, they more frequently participate in supervisory stress tests (nearly 70% versus 50% of others). Moreover, in comparison to others, leaders employ scenario analysis to cover a higher proportion of their balance sheets (Figure 15), and are twice as likely (90% for leaders vs. 45% for others, roughly) to use a baseline scenario.

Figure 15: Proportion of Balance Sheet/Portfolio Covered by Scenario Analysis

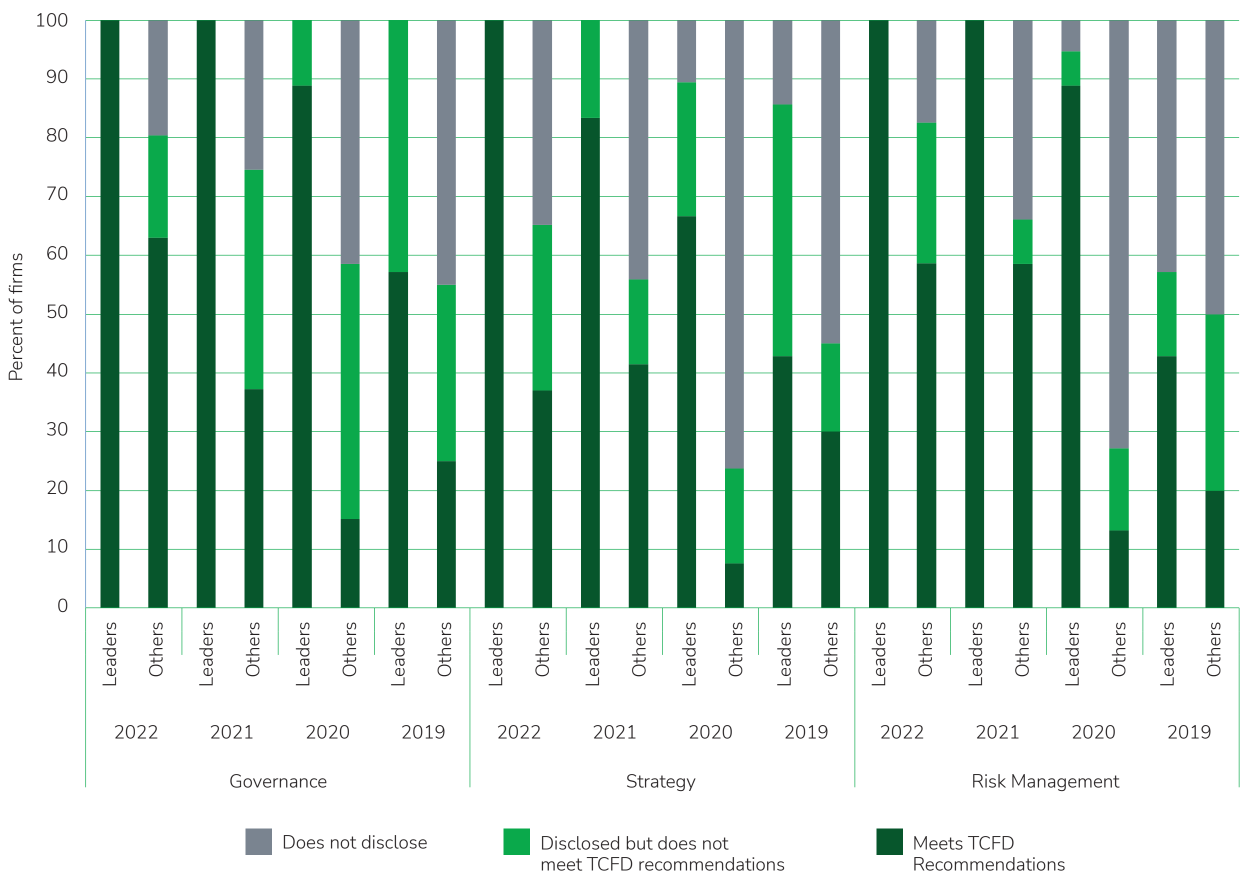


Disclosures

All firms have made progress over the four years of the survey in both making disclosures and in meeting the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). That said, the leading firms are more advanced with their external disclosures across all categories (governance, strategy, and risk management). What's more, in 2022, all leaders thought they met TCFD recommendations for their governance, strategy and risk management disclosures.

In the past, we have argued that the leaders might have been more advanced because a larger proportion of them were subject to regulatory requirements on disclosures. In 2022, that gap narrowed, with 81% of leaders and 76% of others reporting that they needed to meet regulatory requirements. It may, moreover, just be a matter of time before the gap closes even further.

Figure 16: External Disclosures and TCFD Recommendations



Conclusion

Over the past four years, we have seen significant improvements in climate risk management, across the firms that have participated in our surveys. This is partly due to increased regulatory scrutiny and the setting of clear supervisory expectations, but also because the passage of time allowed firms to develop and embed their approaches.

However, there are areas where the leaders maintain an edge. To name just a few: boards at leading firms are discussing the issue more frequently and more often have access to dedicated dashboards; metrics, targets, and limits are more likely to be integrated within risk management and aligned with firms' strategy; and new climate/sustainability products are more likely to be developed or adapted.

Leaders, moreover, have more advanced training and recruitment plans, get more value from their scenario analysis, and are more likely to have set a climate risk appetite. It will be interesting to see how these gaps between the leaders and others evolve over the coming years.

GARP will not conduct its climate risk survey in 2023. We will review whether to undertake the survey in 2024, giving firms time to further develop and embed their climate risk management practices. We expect to see climate risk management practices continue to evolve across the financial sector.

About the Authors

Jo Paisley, President of the GARP Risk Institute (GRI), has worked on a variety of risk areas at GRI, including stress testing, operational resilience, model risk management and climate risk. Her career prior to joining GARP spanned public and private sectors, including working as the Director of the Supervisory Risk Specialist Division within the Prudential Regulation Authority and as Global Head of Stress Testing at HSBC.

Maxine Nelson, Senior Vice President, GARP Risk Institute, currently focuses on sustainability and climate risk management. Previous roles have included operational risk modeling at NAB, leading KMPG London's credit risk team, senior consultant at Oliver Wyman, responsibility for counterparty credit risk at the UK FSA, and Global Head of Wholesale Risk Analytics and Head of Capital Planning at HSBC.

GARP® | Global Association of Risk Professionals

garp.org

ABOUT GARP | The Global Association of Risk Professionals is a non-partisan, not-for-profit membership organization focused on elevating the practice of risk management. GARP offers the leading global certification for risk managers in the Financial Risk Manager (FRM®), as well as the Sustainability and Climate Risk (SCR®) Certificate and ongoing educational opportunities through Continuing Professional Development. Through the GARP Benchmarking Initiative and GARP Risk Institute, GARP sponsors research in risk management and promotes collaboration among practitioners, academics, and regulators.

Founded in 1996 and governed by a Board of Trustees, GARP is headquartered in Jersey City, N.J., with offices in London and Hong Kong.

For more information, visit garp.org or follow GARP on LinkedIn, Facebook, and Twitter.

HEADQUARTERS
111 Town Square Place
14th Floor
Jersey City, New Jersey
07310 USA
+1 (201) 719.7210

LONDON
17 Devonshire Square
4th Floor
London, EC2M 4SQ UK
+44 (0) 20 7397.9630

HONG KONG
The Center
99 Queen's Road Central
Office No. 5510
55th Floor
Central, Hong Kong SAR, China
+852 3168.1532