UPDATE ON NEW YORK DOMESTIC INSURERS' MANAGEMENT OF THE FINANCIAL RISKS FROM CLIMATE CHANGE

AN ANALYSIS OF NAIC CLIMATE RISK DISCLOSURE SURVEY RESPONSES AND OTHER REPORTING

MAY 2024

Contents

Table of Figures

Executive Summary

In November 2021, the New York State Department of Financial Services ("DFS") issued Guidance for New York Domestic Insurers on Managing the Financial Risks from Climate Change ("Guidance"), setting forth supervisory expectations that its regulated insurers integrate consideration of climate-related financial risks ("climate risks") into their governance, business strategy, risk management processes, and public disclosures. As part of its ongoing efforts to evaluate and support insurers' progress in assessing, managing, and disclosing their climate risks, DFS has conducted a review and analysis of insurers' responses to the National Association of Insurance Commissioners ("NAIC") Climate Risk Disclosure Survey ("Survey") over the past three Survey reporting years.[1]

In 2021 and 2022, DFS issued reports summarizing the results of such review and analysis for Survey reporting years 2019 and 2020, respectively. This latest report, covering insurers' Survey responses for reporting year 2021, follows the NAIC's revision of the Survey questions to align with the widely adopted Task Force for Climate-Related Financial Disclosure ("TCFD") standards.

The Survey questions were grouped according to the following TCFD pillars: Governance, Risk Management, Strategy, and Metrics and Targets. To reflect the changes to the Survey, DFS assessed the extent to which insurers have integrated climate risk considerations into their practices in relation to each of those pillars.

Consistent with its previous reports, DFS has rated Survey responses for reporting year 2021 according to insurers' level of progress in implementing the supervisory expectations set forth in DFS's Guidance. Insurers were rated in one of following categories: "Yet to Start" for ratings of less than or equal to 1.5; "Early Stage" for ratings greater than 1.5 and less than or equal to 2.5; "Making Progress" for ratings greater than 2.5 and less than or equal to 3.5; and "Good Progress" for insurers ratings greater than 3.5. To assign ratings, DFS used an updated methodology, attached in the Appendix, that organized ratings criteria by individual TCFD pillars to align with the revised Survey.

After rating each insurer's Survey response, DFS then calculated aggregate ratings for each insurance line of business - property and casualty ("P&C"), life, and health - on both a premium-weighted and average basis, as well as a composite rating across the three lines of business to get an overall view of the industry's performance. In addition to analyzing these ratings, the report examines ratings for each TCFD pillar, and a composite of ratings across all pillars, on both a premium-weighted and average basis. It also provides a year-by-year comparison that assesses insurers' rate of progress over three consecutive reporting years.

DFS's assessment of progress in implementing Guidance expectations on a risk-weighted basis reflects that larger insurers have a higher relative impact, and generally have more available resources, than

[1] This analysis covered Survey responses (including 62 TCFD reports) submitted in 2022 by a total of 83 groups and 13 non-affiliated companies, representing insurers with annual countrywide premiums ranging from $100 million to close to $200 billion.

insurers in lower premium ranges. However, viewing the industry solely through a risk-weighted lens could mask the advances or weaknesses of small and medium-sized insurers.

As a result, to discern the overall level of progress, the report also analyzes average ratings, which provide equal weight to each insurer's results regardless of its size. Assessing ratings in these two distinct ways has highlighted expectations meriting additional supervisory focus. As noted in Section 3.1 of the Guidance, small and medium-sized insurers may have more concentrated climate risks by product lines, geographies, or sectors than their larger peers. As a result, they may in particular need further support.

Figure 1: 2021 premium-weighted ratings vs. 2021 average ratings

Pillar	P&C		Life		Health	
	Premium	Average	Premium	Average	Premium	Average
Governance	3.5	2.9	3.5	3.0	3.4	2.5
Strategy	3.4	2.7	3.3	2.9	3.0	2.1
Risk Management	3.4	2.7	3.3	2.9	2.9	2.1
Metrics and Targets	3.3	2.4	3.1	2.7	2.5	1.6
Composite	3.4	2.7	3.3	2.9	2.9	2.1

This table in Figure 1 shows that the average ratings across each line of business in reporting year 2021 are lower than the premium-weighted ratings. This is especially true for the Metrics and Targets pillar, where we see a large gap between the two rating criteria across all lines of business.

Figure 2: Premium-weighted ratings for each pillar from 2019-2021

Pillar	P&C			Life			Health		
	2019	2020	2021	2019	2020	2021	2019	2020	2021
Governance	3.1	3.1	3.5	2.9	2.8	3.5	3.0	3.0	3.4
Strategy	3.1	3.2	3.4	3.0	3.0	3.3	3.0	3.2	3.0
Risk Management	2.8	3.0	3.4	3.1	2.9	3.3	2.8	2.6	2.9
Metrics and Targets	3.3	3.4	3.3	2.8	2.9	3.1	2.3	2.2	2.5
Composite	3.1	3.2	3.4	3.0	2.9	3.3	2.8	2.8	2.9

Figure 3: Average ratings for each pillar from 2019-2021

Pillar	P&C			Life			Health		
	2019	2020	2021	2019	2020	2021	2019	2020	2021
Governance	2.3	2	2.9	2.2	2	3	1.8	2	2.5
Strategy	2.3	3	2.7	2.4	3	2.9	1.9	2	2.1
Risk Management	2.1	2	2.7	2.4	3	2.9	1.7	2	2.1
Metrics and Targets	2.5	3	2.4	2.1	2	2.7	1.4	2	1.6
Composite	2.3	2.5	2.7	2.3	2.5	2.9	1.7	2	2.1

As shown in Figure 2, there was a material increase in premium-weighted ratings for the Governance pillar for all lines of business. The 2021 premium-weighted ratings for this pillar saw a significant uptick from the previous years' ratings, while remaining in the "Making Progress" category.

Similarly, the average ratings for Governance in Figure 3 illustrate that insurers in all lines of business, regardless of size, are incorporating consideration of climate risk into their governance processes. P&C average ratings in 2021 improved materially from reporting year 2020, advancing from "Early Stage" to the next higher ratings level, "Making Progress". Health's average ratings also increased during that period, although remaining at "Early Stage". The average ratings for the life business showed the most improvement, rising by an entire numeral over the three-year period, to achieve a "Making Progress" rating in 2021.

A key factor in this development was that in the Guidance, DFS had established an August 15, 2022 timeline for its regulated insurers to implement Guidance expectations relating to board governance and establishment of plans to incorporate consideration of climate risk into their organizational structure.

While insurers have made considerable progress regarding Governance, the results for the Strategy, Risk Management, and Metrics and Target pillars were not as favorable or consistent. This is especially evident from the average ratings shown in Figure 3. The consistently higher level of premium-weighted ratings than average ratings over the three reporting years indicate that much of the progress for these pillars is being driven by the larger insurers.

Finally, DFS reviewed supplemental information it requested from insurers to monitor whether they had implemented Guidance expectations subject to the August 15, 2022 timeline. DFS-regulated insurers were asked to describe what actions they had taken to integrate consideration of climate risk into their board and management governance processes. In addition, they were asked to describe the specific plans they had developed to incorporate these considerations into their organizational structure more broadly. Reinforcing the conclusions from Survey ratings of the Governance pillar, all but a handful of the regulated insurers, regardless of size, appear to have met this implementation timeline. Further, a significant component of large and medium-sized insurers and some smaller insurers appear to have advanced from planning to execution and are taking steps to incorporate consideration of climate risk into their risk management processes.

In summary, DFS's analysis indicates that, despite a large variation in resource levels and capacity, most insurers are integrating consideration of climate risk into their processes to some degree. Continuing its approach from previous years, DFS will use the information obtained from these analyses in connection with its review of insurers' progress against Guidance expectations as part of supervisory examinations. It will engage with individual insurers that appear to lag their peers, as well as with more advanced insurers, to learn about their accomplishments so far and what challenges they face.

Introduction

As the past few years have shown, climate change poses wide-ranging challenges and risks to the financial system, especially the insurance industry. This is because physical and transition risks stemming from climate change impact an insurer's assets, liabilities, and business models. At the same time, tremendous opportunities for insurers also stem from climate change, in the form of new products, new services, and new investment areas. This report reviews the current state of the lines of business and their progress over the past three reporting years, and highlights examples of steps to implement Guidance expectations that our regulated insurers may wish to prioritize.

The NAIC's Climate Risk and Resiliency Task Force developed the new TCFD-aligned Survey and launched it for use in the 2022 Survey, for insurers' responses regarding their actions in 2021. For this report, the DFS took into account the NAIC's alignment with the TCFD's standards[2]. Implementing the new TCFD-aligned disclosure framework enhances transparency about how regulated insurance companies manage climate-related risks and opportunities. The new Survey also aligns with a widely accepted disclosure framework that has been incorporated into regulatory reporting requirements in many jurisdictions. DFS developed an updated rating methodology that assesses the extent to which insurers have integrated climate risk considerations in relation to TCFD pillars, while remaining consistent with the methodology used in the past to assign ratings. This allows for ratings to be compared across the years to assess insurers' progress over time.

The following are some of the criteria used to determine the level of progress of Survey respondents. The complete criteria are provided in the Appendix.

1. **Governance (Pillar 1):** The insurer has designated a board member or board committee to oversee management of climate risks. These board responsibilities are part of its oversight of the insurers' risk management, investments, or underwriting processes. Its board has designated members of senior management as responsible for assessment and management of these risks. Well-rated insurers also have established clear lines of responsibility beyond such designated senior management and have created cross-functional risk management committees. Climate risks are fully integrated into the enterprise risk management processes. In addition, the insurer provides information on how climate risks are addressed, not just at the enterprise level, but also how policies, processes, and procedures specific to climate risk cascade down to an individual insurer within the Group.
2. **Strategy (Pillar 2):** The insurer acknowledges climate risk and its impact on business strategy and financial planning, while providing details on plans to mitigate adverse impacts and take advantage of opportunities presented by climate change. A well-rated insurer in this category takes a forward-looking approach by assessing the impact of various climate scenarios on its business strategy and takes part in industry or international networks with regards to the topic of climate change.
3. **Risk Management (Pillar 3):** The insurer provides details of the impact of physical and transition risks for both underwriting and investments. The insurer assesses climate risk impacts on standard risk types, as well as risks to various geographies and sectors. Well-rated insurers describe how climate risk is integrated into their enterprise risk management framework and discuss risk mitigation strategies.
4. **Metrics and Targets (Pillar 4):** The insurer measures and manages its exposure to physical and transition risk by using risk metrics and targets. Well-rated insurers also use forward-looking methodologies as well as catastrophe modeling to measure and manage climate risks. They also

[2] U.S. Insurance Commissioners Endorse Internationally Recognized Climate Risk Disclosure Standard for Insurance Companies (naic.org)

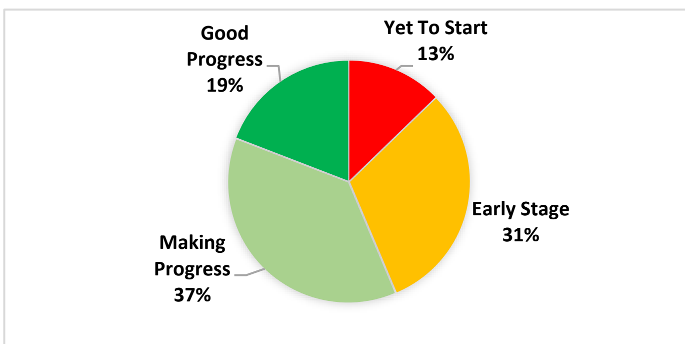
use data and tools to assess exposure to business lines, sectors, and geographies vulnerable to climate risk.

These examples of criteria illustrate steps consistent with implementation of Guidance expectations. Using these criteria, DFS analyzed the Survey responses to describe the current state of rated insurers' progress, to review how such insurers have advanced over the three reporting years, and to assess the progress by insurer line of business and size.

Current State

Although progress has been made over time across all lines of business, insurers still have more to do to improve their ability and capacity to assess, measure, and manage climate-related risks. There is a large disparity among insurers in their implementation of initiatives that address these risks in their business models. As shown in Figure 4, we find that 44% of the insurers are rated either as "Yet to Start" or "Early Stage" based on their responses to the NAIC Survey, and only 37% are rated as "Making Progress". The industry as a whole is not yet prepared to identify and manage these risks effectively, as evidenced by our finding that only 19% of insurers have achieved "Good Progress".

Figure 4: Overall Insurance Distribution by Rating; Composite Ratings Across Lines of Business (Percentage of Groups/Unaffiliated Companies by Number)



In addition to analyzing overall industry results, we examined differences among specific lines of business, and by premium level within those lines of business.

Life Insurers

Life insurers overall seem to be further along in addressing climate-related risks. Figure 5 shows that among insurers that are involved in the life business, a majority have been rated either "Making Progress" or "Good Progress", with only 8% rated as "Yet to Start". This level of progress may be attributable in part to such insurers' awareness that climate change impacts may increase significantly over time, with the most impact to be felt later this century. As a result, these impacts may affect their long-term assets and liabilities, which can in some cases extend beyond 50 years.

The Survey results were analyzed based on the size of the insurers participating in the life business. As noted in Figure 6 below, the life line of business is unique in that it has companies from all premium ranges rated as "Good Progress". Within the different size categories, the largest premium range, with over $20 billion in written premium, has the highest percentage of companies rated as "Good Progress (40%). The only life insurers rated “Yet to Start” were the smallest ones (i.e., below $3 billion in written premium), with a percentage of 25%. The highest percentage for this group was 42% rated “Early Stage”. Only 8% of these companies were rated “Good Progress”, but the percentage of these companies rated “Making Progress” was still notable, at 25%.

Figure 5*:* Life Company Distribution by Rating; Composite Ratings Across Insurance Lines (Percentage of Groups/Unaffiliated Companies by Number)

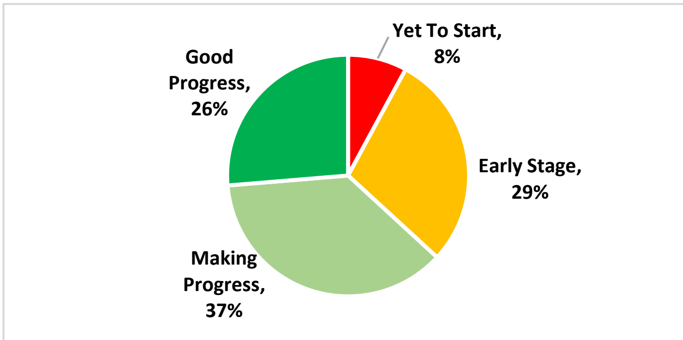
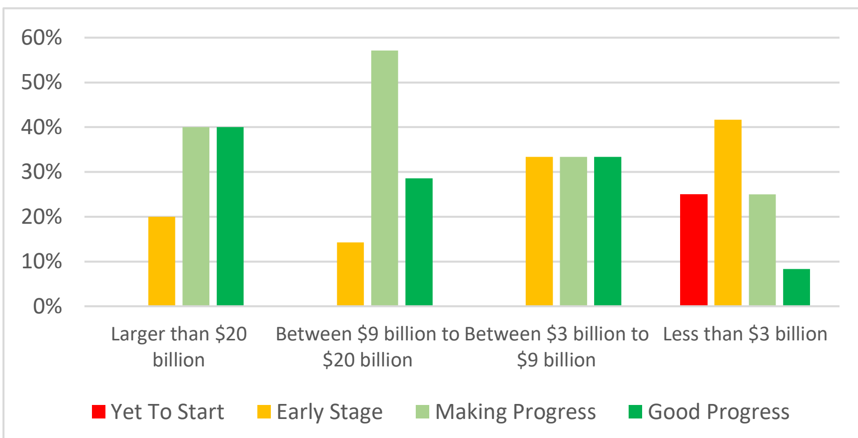


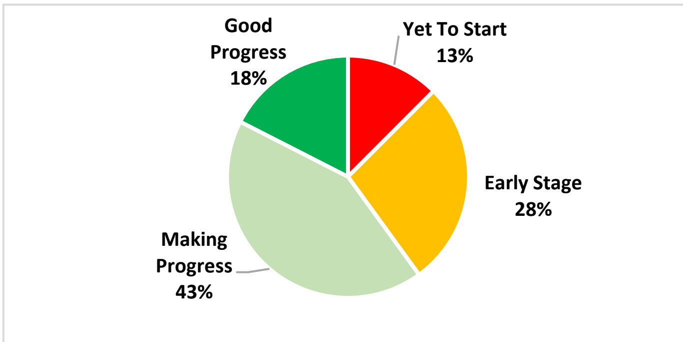
Figure 6: Life Insurer ratings by premium range



Property & Casualty (P&C) Insurers

P&C as a line of business has also made progress compared to previous years, with 61% of its insurers in either the “Making Progress” or “Good Progress” category. However, 13% of P&C insurers are in the “Yet to Start” category. P&C as a sector already faces the physical manifestations of climate change, as evidenced by the National Oceanic and Atmospheric Administration (NOAA) report of the increasing number of billion-dollar loss events, both on a national level and in New York State.[3] As climate risks are evolving, the Guidance emphasizes that insurers should take a forward-looking approach to understand the resilience of their business models over medium and long-term time horizons.[4]

Figure 7: P&C Company Distribution by Rating; Composite Ratings Across Insurance Lines (Percentage of Groups/Unaffiliated Companies by Number)



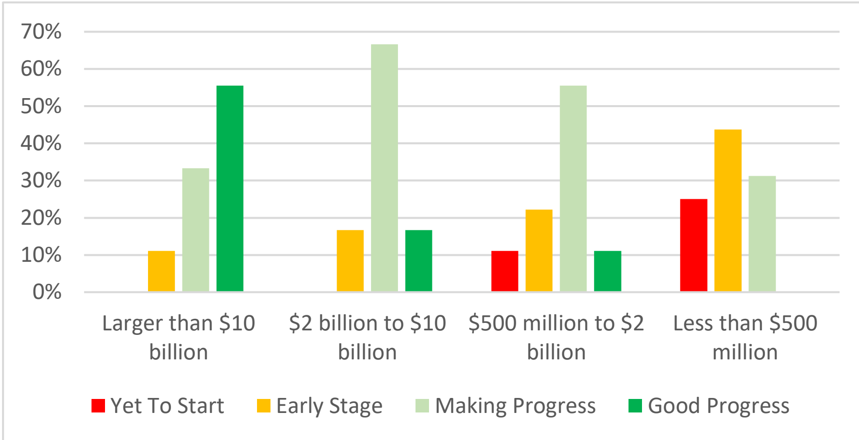
P&C's largest premium range, covering insurers with premiums over $10 billion, has the most insurers in the "Good Progress" category (56%), although 11% of largest insurers are still at the "Early Stage", lagging their peers. Medium-sized insurers (in the $2 billion to $10 billion range) enjoy the distinction of having the highest percentage of insurers rated" Making Progress" (67%), but still have 17% in the "Early Stage" category. Smaller insurers (in the $500 million to $2 billion premium range) include 56% of insurers categorized as "Making Progress", and 11% rated "Good Progress". Only insurers in the two smallest premium range categories in this line of business, with annual premiums between $2 billion and $500 million, or with annual premiums less than $500 million, have insurers in the "Yet to Start" category. That said, even the smallest premium range, less than $500 million, has 31% of insurers in the "Making Progress" category.

---

[3] Billion-Dollar Weather and Climate Disasters | United States Summary, https://www.ncei.noaa.gov/access/billions/state-summary/US, National Centers for Environmental Information (NCEI); Billion-Dollar Weather and Climate Disasters, New York Summary, https://www.ncei.noaa.gov/access/billions/state-summary/NY, NOAA National Centers for Environmental Information (NCEI).

[4] Guidance Section 3.7, Paragraph 42.

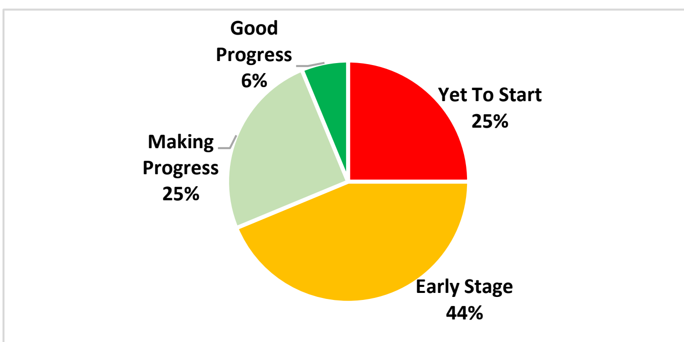
Figure 8: P&C Insurer Ratings by premium range



Health Insurers

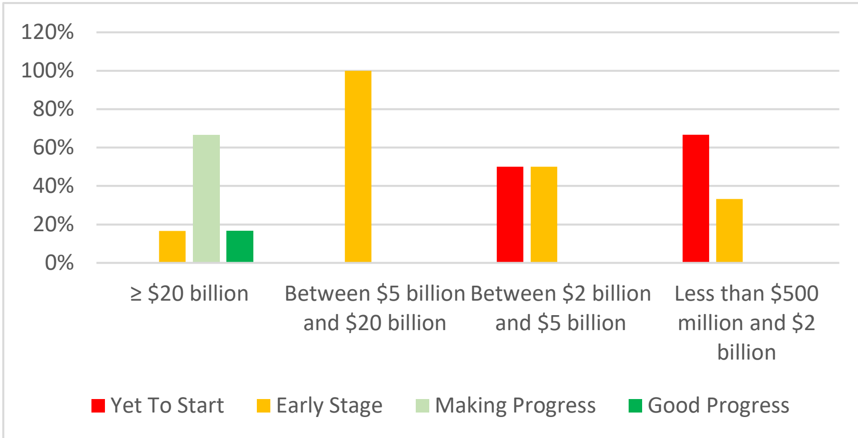
The health line of business is performing at a lower level than its life and P&C counterparts, with a substantial portion of this line of business (69%) in the “Early Stage” and “Yet to Start” categories, and only 6% in the “Good Progress” category.

Figure 9: Health Company Distribution by Rating; Composite Ratings Across Insurance Lines (Percentage of Groups/Unaffiliated Companies by Number)



For the rated health insurers, all the companies in the “Good Progress” and “Making Progress” categories fall within the largest premium range (over $20 billion). All other premium ranges only include companies that are rated “Early Stage” or “Yet to Start”. This shows that health’s progress throughout the 2019, 2020, and 2021 reporting years principally reflects improvements by the largest insurers.

Figure 10: Health Insurer Ratings by premium range



Overall Results

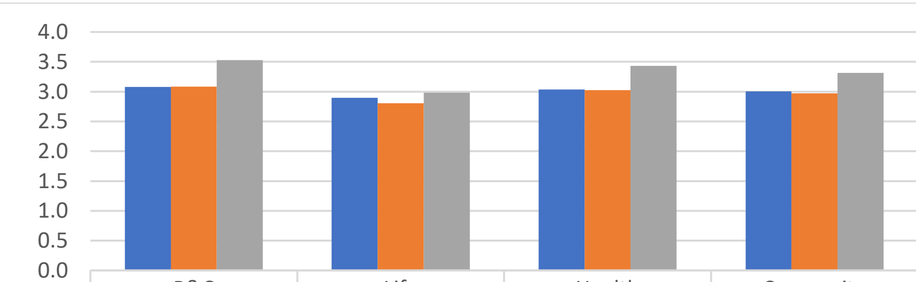
This review of insurer status by line of business and premium level demonstrates that, while in general larger insurers' ratings reflect the most progress, a company's size does not always indicate its level of sophistication in understanding climate risk. Some larger insurers lag their peers and, in some cases, their smaller counterparts, while medium-sized and smaller insurers can still perform well in comparison to other insurers in that line of business, regardless of size.

Progress Over Time

As noted in the Executive Summary, DFS assessed the level of progress of insurers against Guidance expectations by comparing ratings assigned over the 2019 to 2021 reporting periods. The analysis is broken down by the TCFD pillars, as detailed below.

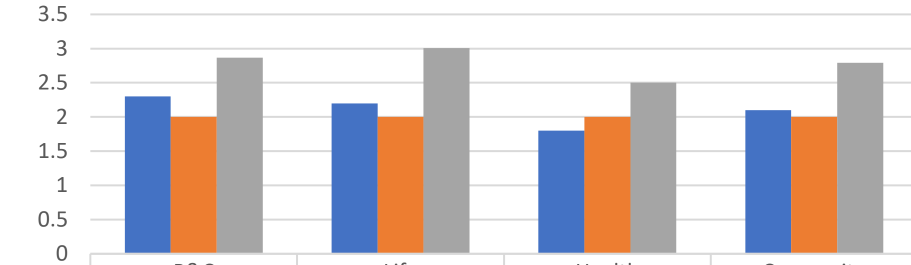
Governance

Figure 11: Premium-weighted Governance ratings from 2019-2021 for all Lines of Business



	P&C	Life	Health	Composite
2019	3.1	2.9	3.0	3.0
2020	3.1	2.8	3.0	3.0
2021	3.5	3.0	3.4	3.3

Figure 12: Average Governance ratings from 2019-2021 for all Lines of Business

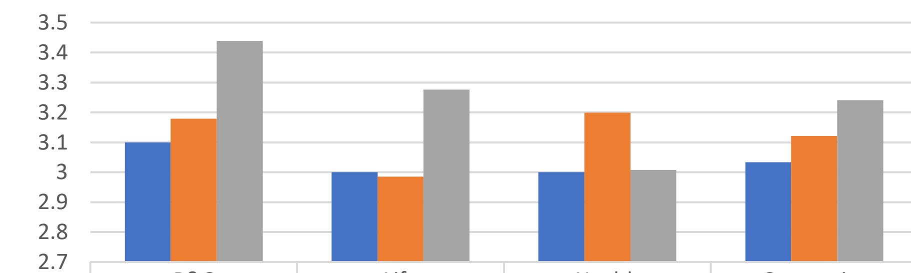


	P&C	Life	Health	Composite
2019	2.3	2.2	1.8	2.1
2020	2	2	2	2
2021	2.9	3.0	2.5	2.8

For both premium-weighted and average ratings, as shown in Figures 11 and 12, respectively, the Governance pillar showed the largest increase for all lines of business. As the Guidance contains explicit expectations that insurers integrate climate-related risk considerations into their governance processes, with implementation timelines attached, such timelines appear to have provided insurers with an impetus to increase the speed and robustness of their integration.

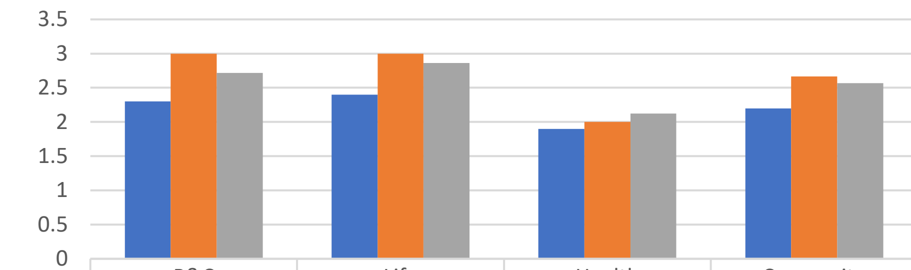
Strategy

Figure 13: Premium-weighted Strategy ratings from 2019-2021 for all Lines of Business



	P&C	Life	Health	Composite
2019	3.1	3	3	3.0
2020	3.2	3.0	3.2	3.1
2021	3.4	3.3	3.0	3.2

Figure 14: Average Strategy ratings from 2019-2021 for all Lines of Business



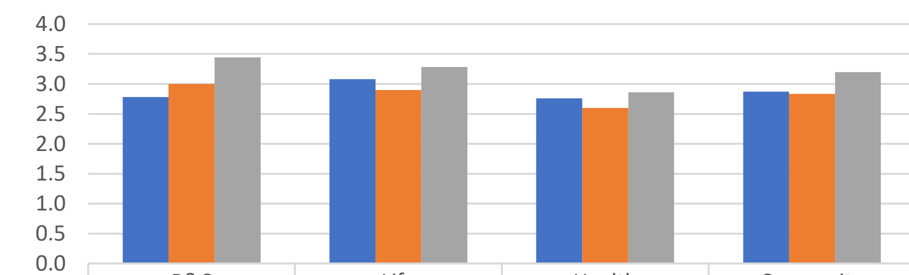
	P&C	Life	Health	Composite
2019	2.3	2.4	1.9	2.2
2020	3	3	2	2.7
2021	2.7	2.9	2.1	2.6

Figures 13 and 14 showcase the differences between premium-weighted and average ratings for the Strategy pillar.

While premium-weighted ratings showed a steady increase, except for the health line of business, insurers' average ratings fluctuated. This difference between the two types of ratings indicates that larger insurers, which generally have access to more resources, are better able to assess the impact of climate risk on their business strategy than medium-sized and smaller insurers.

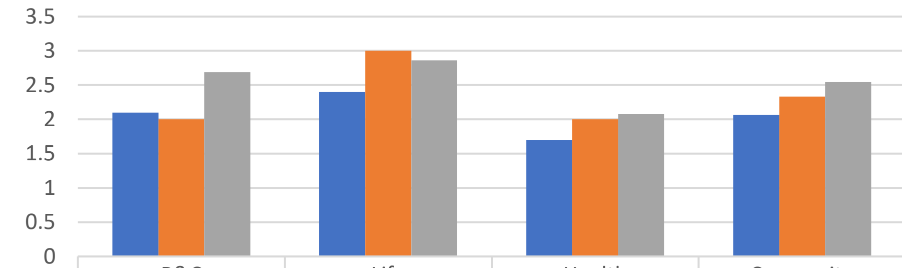
Risk Management

Figure 15: Premium-weighted Risk Management ratings from 2019-2021 for all Lines of Business



	P&C	Life	Health	Composite
2019	2.8	3.1	2.8	2.9
2020	3.0	2.9	2.6	2.8
2021	3.4	3.3	2.9	3.2

Figure 16: Average Risk Management ratings from 2019-2021 for all Lines of Business

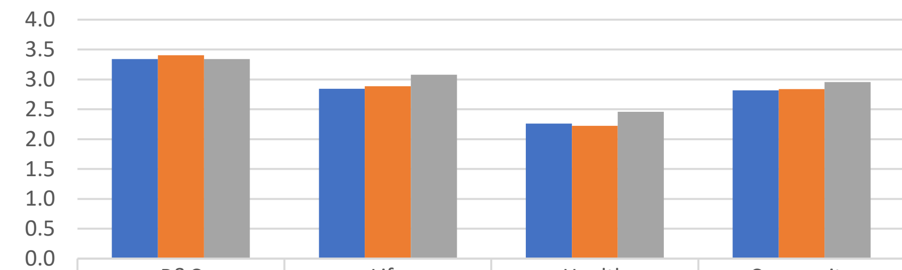


	P&C	Life	Health	Composite
2019	2.1	2.4	1.7	2.1
2020	2	3	2	2.3
2021	2.7	2.9	2.1	2.5

The Guidance was released in November 2021, and the rating increases for that year evidence the influence of the Guidance expectations relating to this pillar. Insurers have begun to implement measures to assess how climate risk can impact their operations, underwriting, and investments. Both types of ratings increased from 2019 to 2021, indicating that medium-sized and smaller insurers are also making progress in this area. However, because the premium-weighted ratings remain higher than the average ratings, this shows that overall, it is the larger insurers that have done the most to integrate consideration of climate risks into their risk management processes.

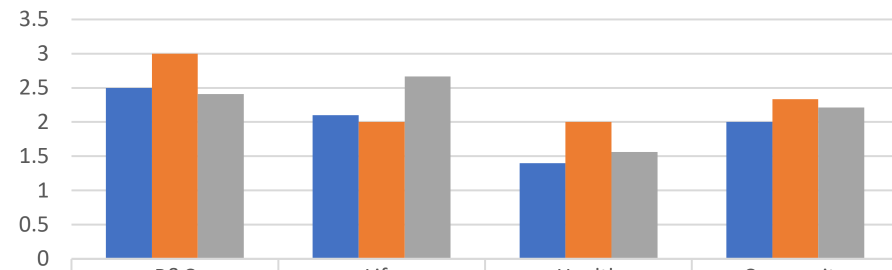
Metrics and Targets

Figure 17: Premium-weighted Metrics and Targets ratings from 2019-2021 for all Lines of Business



	P&C	Life	Health	Composite
2019	3.3	2.8	2.3	2.8
2020	3.4	2.9	2.2	2.8
2021	3.3	3.1	2.5	3.0

Figure 18: Average Metrics and Target ratings from 2019-2021 for all Lines of business



	P&C	Life	Health	Composite
2019	2.5	2.1	1.4	2.0
2020	3	2	2	2.3
2021	2.4	2.7	1.6	2.2

The ratings for the Metrics and Targets pillar reflect a larger difference between average and premium-weighted ratings than for other pillars. Figures 17 and 18 also show that ratings for 2021 were not always the highest, both for premium-weighted and average ratings.

These results indicate that this pillar has been the most difficult one for insurers to implement as part of their existing processes. This could be the result of gaps in available data, exacerbated by a lack of consistent disclosure standards, and of resource constraints which may limit insurers' capacity to utilize available methodologies and tools.

Overall results

In relation to all four pillars, larger insurers performed better overall than their medium-sized and smaller peers. They may have developed greater expertise and may have access to greater resources and capacity that enabled further progress. Although no insurer is spared from the impact of climate change, small and medium-sized insurers are often more vulnerable to its impacts, especially as they may not have the advantage of diversification like their larger counterparts.

Implementation of Guidance Expectations

As mentioned in the Guidance, DFS expected New York domestic insurers to have implemented its expectations relating to board governance (Section 3.6.1), and to have specific plans in place to implement the expectations relating to organizational structure (Section 3.6.3), by August 15, 2022.

After review of the responses to DFS's request for information ("RFI") issued to all its regulated insurers in 2022, DFS found that the vast majority of respondents met applicable Guidance expectations on board governance and organizational structure. Those insurers had designated board committees and/or specific board members to oversee assessment and management of climate risk. The most advanced insurers had developed robust plans, with associated timelines, to incorporate climate risk into their enterprise risk management frameworks.

It is notable, however, that many small or medium-sized insurers did not establish timelines or specific milestones to track progress associated with their plans to integrate consideration of climate risk into their risk management processes. These insurers may face resource constraints. These constraints are contemplated and accounted for in Section 3.1 of the Guidance. The Guidance indicates that insurers should implement Guidance expectations in a proportionate manner, as befits their size, complexity, and exposure to climate risks.

When DFS established the August 15, 2022 timeline for implementation of expectations relating to governance and organizational structure in the Guidance, it also recognized in Section 3.5 that more complex expectations, such as those relating to risk appetite, analysis of the impact of climate risks on existing risk factors, reflection of climate risks in Own Risk and Solvency Assessment ("ORSA") reports, scenario analysis, and public disclosure, could take longer to implement. Although no specific timeline was established for these more complex expectations, the Guidance encouraged insurers to get started on this work.

In the interim, insurers have had an opportunity to develop greater capacity and understanding of the Guidance expectations relating to pillars other than Governance. However, continued efforts are needed to improve progress for Guidance expectations relating to the Strategy, Risk Management and Metrics and Targets pillars.

As the Department has done since issuing the Guidance, DFS will continue to leverage the results of the annual survey to:

1. Assess insurers' progress in identifying, assessing, and managing climate risks in keeping with Guidance expectations, and, as appropriate, develop additional direction on implementation;
2. Identify additional good practices that can be shared with the industry in future webinars and reports; and
3. Support risk-based supervision by identifying insurers that appear to lag, generally or in a specific area, compared to their peers, and by engaging in bilateral discussions to understand their challenges and highlight areas for improvement.

Insurers can review the relevant ratings criteria set forth in the Appendix to identify how they can improve further, as well as the examples of good practices contained in DFS's reports on 2019 and 2020 Survey responses. Consistent with Section 3.5 of the Guidance, development of time-bound plans to implement the related Guidance expectations in a proportionate manner facilitates oversight of their progress.

The following are examples of steps to implement Guidance expectations that insurers may wish to prioritize:

- **Governance:** monitoring progress against plans to embed consideration of climate risks into insurers' organizational structure. (Guidance Section 3.5)[5].

---

[5] References to Guidance sections and paragraphs highlight key provisions but are not intended to be exhaustive.

- **Strategy:** exploring how climate risks may affect insurers' business strategy beyond the standard three- to five-year planning horizon. (Guidance Section 3.3, Paragraph 22 and Section 3.7, Paragraph 42). Insurers may wish to start with pilot exercises that assess the resiliency of their current business model under one or more climate scenarios over the medium term (five to ten years) and over longer periods, to help identify areas of potential vulnerability with respect to their products, geographical exposures, or investments. (Guidance Section 3.8.1.1, Paragraph 47 and Section 3.9, Paragraphs 75 and 76).
- **Risk Management:** undertaking more comprehensive analyses of how both physical and transition risks may affect existing risk factors and integrating forward-looking assessment of these risks. (Guidance Section 3.4, Paragraph 27 and Section 3.8, Paragraphs 46 and 55). This is particularly important for P&C insurers in relation to underwriting exposures, and for life insurers, in relation to their investments. For those entities required to have an enterprise risk management ("ERM") function, incorporating ongoing consideration of climate risks into their ERM processes and risk appetite statements, and addressing in their annual ORSA how they identify, categorize, manage, and monitor material climate risks. (Guidance Section 3.8, Paragraphs 46 and 48, and Section 3.8.3).
- **Metrics and Targets:** identifying available data and tools to assess material climate risks applicable to their products, geographical exposures and investments. (Guidance Section 3.1, Paragraph 16 and Section 3.10, Paragraph 84). Using an iterative approach, advancing from qualitative to quantitative measurement of those risks as additional data and tools become available. (Guidance Section 3.1, Paragraph 17, and Section 3.10, Paragraph 83). For P&C insurers, building capacity to understand their tail risks, such as through exploring use of natural catastrophe models that incorporate climate-conditioned catalogues, rather than limiting their focus to historic loss information. (Guidance Section 3.9, Paragraph 74).

Conclusion

DFS's analysis of reporting year 2021 Survey responses, as well as its assessment of changes over reporting years 2019, 2020, and 2021, demonstrates that insurers have made progress regarding Governance, as seen in their improvement in ratings over the three-year period. These results, as well as the review of RFI responses, indicate that entities of all sizes, to varying degrees, have taken steps toward implementing these Guidance expectations.

By contrast, the ratings for the Strategy, Risk Management, and Metrics and Target pillars did not show the same consistent level of progress. Insurers need to take a strategic approach to climate risks that considers their impact over medium- and longer-term time horizons, to assess the resilience of their business strategy and their risk management processes, as well as to understand what data and tools they need to make those assessments.

Climate risks pose material and wide-ranging challenges to the insurance industry. To address these challenges, all insurers must be adequately prepared to identify, assess, and manage these risks, through taking measures relating to the four pillars examined in this report.

Appendix 1 *(Ratings Methodology)*

This table contains the ratings methodology referenced in the report, categorized by TCFD pillar. Each topic highlights expectations related to the Guidance that DFS assessed. Align as much as possible

Topics	Yet to Start	Early Stage	Making Progress	Good Progress
Governance: *1.Disclose governance around climate related risks and opportunities.* *1A. Describe the board and/or committee responsible for the oversight of climate-related risks and opportunities.* *1B. Describe management's role in assessing and managing climate-related risks and opportunities.*	1. No climate policy. 2. Does not view climate change as a risk to the company and does not have analysis to support that position. 3. Governance structure or senior management function ("SMF") does not consider climate risks. 4. Climate risks not part of ERM.	1. No official climate policy but considers climate change in risk management. 2. Board and SMF not engaged in accountability structure. 3. Climate change is an ERM issue, but only as an operational risk. 4. Has not established climate-related lines of responsibility below SMF.	1. Has a climate policy. 2. Insurer or insurer's group has designated a board member or committee, and a SMF, to be responsible for climate risks. 3. Limited information provided on climate-related lines of responsibility below SMF. 4. Has an internal committee to identify and address climate risks, but committee is not fully cross-functional, or the committee structure is not set up. 5. If climate risk is addressed at group level, the insurer does not disclose details of governance and climate-related activities at the insurer level.	1. Has a clear and detailed climate policy. 2. Insurer or insurer's group has designated a board member or committee, and a SMF in risk, underwriting, and/or investments to be responsible for climate risks. 3. Details provided on climate-related lines of responsibility below SMF. 4. Has an active internal cross-functional risk committee to identify and address climate risks that includes at least underwriting (for P&C) and investment functions. 5. Climate risks fully integrated into ERM process. 6. If climate risk is addressed at group level, the insurer discloses details of governance and activities at the insurer level including description of the mechanism through which the group board and management access insurer's board and management, and the implementation of the group level risk appetite, processes

				and framework at the insurer level.
Strategy *2. Disclose the actual and potential impacts of climate-related risks and opportunities on the insurer's businesses, strategy, and financial planning where such information is material.* *2A. Describe the climate-related risks and opportunities the insurer has identified over the short, medium, and long term.* *2B. Describe the impact of climate-related risks and opportunities on the insurer's business, strategy, and financial planning.* *2C. Describe the resilience of the insurer's strategy, taking into consideration different climate-related scenarios, including a 2 degree Celsius or lower scenario.*	1. Does not acknowledge impact on its business under different climate scenarios	1. Acknowledges business could get impacted under different climate scenarios but either considers them not material or doesn't measure impact	1. Acknowledges business could get impacted longer term under different climate scenarios but either considers them not material or provides some high level analysis on the impact. 2. Provides no details on its plans to mitigate the adverse impact under these scenarios.	1. Acknowledges the impact of climate-related risks and opportunities on its business, strategy and financial planning. Articulates the impact on business strategy under climate scenarios. 2. Provides details on its plans to mitigate the adverse impact and take advantage of opportunities that might present themselves under various climate scenarios. Details include information about steps to mitigate impact on revenue, and capital due to asset devaluation. 3. Takes part in industry networks dedicated to the topic of climate change nationally and/or internationally.

Risk Management *3.Disclose how the insurer identifies, assesses, and manages climate-related risks.* *3A. Describe the insurers' processes for identifying and assessing climate-related risks.* *3B. Describe the insurer's processes for managing climate-related risks.* *3C. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the insurer's overall risk management.*	1. Climate risks not identified, and no explanation provided as to why climate change does not pose a risk to the insurer. 2. No process in place to identify or assess climate risks 3. Identification done ad hoc, or responsibility assigned to a third-party. 4. Has not taken actions to model climate risks. 5. No consideration of climate risks in investments and no explanation provided as to why the investment portfolio is not exposed to climate risks.	1. Impact of climate risks on some risk factors identified without providing details. 2. Geographic information missing (for P&C insurers). 3. Process of risk identification and assessment is in place but unclear whether the process addresses climate risks, and details on the process are insufficient. 4. Risk identification and management cover only physical risks or only liabilities for P&C insurers. 5. Provided limited information on the models used for assessing climate risks. 6. No mention of forward-looking data or models. 7. Recognizes climate risks in investments but does not have a separate process for considering them or provides little information on process, data and model, and asset classes. 8. Views climate risks to investments as	1. Some information on impact of climate risks on some branded risk factors and lines of business provided. 2. Geographic information missing (for P&C insurers). 3. Limited information on measures taken to address climate risks provided. 4. Process of climate risk identification and assessment is in place and embedded in ERM. 5. Some information provided on the process, data, and models used, and which business areas or product lines are considered. 6. Risk identification and management cover only physical risks or only liabilities for P&C insurers. 7. Broad recognition of physical and/or transition risks without linking them to its business. 8. Provided some information on the analytical, catastrophe (for P&C insurers), and risk modeling techniques to assess climate risks.	1. Details on the impact of physical and transition risks on most branded risks factors and various lines of business provided. 2. Risk identification and management process cover both physical and transition risks for both assets and liabilities. Systematically considers climate risks for various geographical locations of business or investments (Geographic details provided for P&C insurers). 3. Impacts of climate risks on branded risk factors beyond operational and reputational risks analyzed in detail. 4. Details on organizational structure, processes, data, and models to address climate risks are provided. 5. Process of climate risk identification and assessment is in place and embedded in ERM and the risk appetite framework. 6. Describes how assessment of climate risks informs business strategies and risk mitigation strategies. 7. Provided details on sophisticated analytical, catastrophe (for P&C insurers), and risk modeling techniques

		playing out only in decades.	9. Mostly relies on third-party data and model vendors. 10. No mention of forward-looking data. 11. Impact of climate risks on investments recognized. 12. Considers climate risks in investments and provides some information on the process, data and models, and asset classes. 13. No clear expectations for external managers (if used) regarding climate risks. 14. Has not conducted climate-related scenario analysis or stress tests with a long time horizon.	to assess Physical risks. 8. Often forms its own view of climate risks rather than relying on third-party data and models. 9. Used forward-looking data or models. 10. Impact of Transition risks on investments articulated. Provides details on how climate risks are considered in the investment process and for different asset classes, and describes the data and models used. 11. Has clear expectations for external asset managers (if used) regarding climate risks. 12. Often conducted climate-related scenario analysis or stress tests for different time horizon and provided details on the results, including details of scenarios used for underwriting risks and the ones used for risks in its investments. 13. Often considers interaction between underwriting and investments for P&C insurers. 14. Discussed impacts of climate risks on capital (for P&C insurers).

Metrics and Targets *4.Disclose the metrics and targets used to assess and manage relevant collateralized risks and opportunities where such information is material.* *4A. Disclose the metrics used by the insurer to assess climate-related risks and opportunities in line with its strategy and risk management process.* *4B. Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.* *4C. Describe the targets used by the insurer to manage climate-related risks and opportunities and performance against targets.*	1. Does not use catastrophe modeling to manage climate risk. 2. Has not specified any metrics and targets for assessing and managing climate-related risk and opportunities.	1. Does use catastrophe modeling to measure and manage climate risk but does not provide many details on perils and its exposure to them by business lines or geographies. 2. Does not have well defined metric framework to assess climate-related risk and opportunities.	1. Does use catastrophe modeling to measure and manage relevant collateralized climate risks and opportunities. 2. Provides details on the perils and its exposure to them broken down at higher level like business segment but does not provide much detail on the models used. 3. Does have some reasonably defined metrics framework in place that address various aspects of physical risks like exposure to certain perils but does not address in detail transition risks and opportunities to the business model and investments.	1. Does use catastrophe modeling to measure and manage relevant collateralized climate risks and opportunities. 2. Provides detailed information on the various perils and its exposure to them broken down by businesses and geographies. Provides detailed description of catastrophe models used. 3. Has risk metrics in place to assess and manage both physical and transition risks. These metrics measure the amount of exposure to business lines, sectors, and geographies vulnerable to climate-related physical risks that allow for alignment with climate scenarios like 1 in 100 years probable maximum loss, Climate VaR, carbon intensity. Metrics also include the amount of financed or underwritten carbon emissions.

To reflect insurers' overall ratings, qualitative ratings were converted into numerical scores: Yet to Start = 1, Early Stage = 2, Making Progress = 3, and Good Progress = 4. **The scores for each section were based on the responses to the questions.**

1. **Governance** – Policies and operating mechanisms that drive systems toward preventing, mitigating, or adapting to the risks posed by climate change.
2. **Strategy** – Actual and potential impacts of climate-related risks and opportunities on the businesses, strategy, and financial planning over short, medium and longer time horizons. Responses to questions in the strategy section that address engagement with the policyholders to help them transition to a low carbon economy and reduce climate-related losses do not directly apply to Life or Health insurers, and therefore are not considered for their composite ratings.
3. **Risk Management** – The embedding of climate risk into ERM programs in a manner that anticipates, informs, and compensates for climate risks. The use of sophisticated software and practices to address climate change risks, including scenario analysis and stress testing.
4. **Metrics and Targets** – Framework of metrics and targets in place to assess and manage climate-related financial risks and opportunities. It includes details on the methodologies and models (especially catastrophe models) deployed and the associated uncertainties around using those methodologies. Incorporation of a plan for measuring and managing emissions is not directly related to risk management and was not considered for the composite ratings.

To create a composite rating, all sections were given a weight of 1 but questions that are not focused on risk management were not included in the evaluation. The composite ratings were then categorized as: “Yet to Start” for ratings of less than or equal to 1.5; “Early Stage” for ratings greater than 1.5 and less than or equal to 2.5; “Making Progress” for ratings greater than 2.5 and less than or equal to 3.5; and “Good Progress” for insurers ratings greater than 3.5.

Appendix 2 (RFI Questions)

RFI Questions that were used to assess the implementation of expectations relating to Sections 3.6.1 and 3.6.3 of the Guidance.

1. Please describe your company's board governance structure as it relates to climate risks and include at least the information below:
   - The board member(s) or committee(s) that are responsible for the oversight of the management of climate risks.
   - The board's familiarity with climate risks and education/training on climate risks.
   - Whether board governance is done at the ultimate holding company level (if applicable), intermediate holding company level (if applicable), the entity level, or a combination. If handled at the ultimate holding company level, describe what activities are undertaken at the entity level.
   - If the company has made climate commitments, how the board oversees management's progress toward meeting such commitments.
   - The senior management function(s) that are responsible for the management of climate risks.
   - Please share any other relevant information.
2. Please describe the specific plans the company has developed on climate-related organizational structure and include at least the information below:
   1. How climate risks will be managed through the company's existing enterprise risk management functions.
   2. The roles and responsibilities of the control functions related to managing climate risks.
   3. How the risk management process will be implemented across lines of business, operations, and control functions.
   4. Plans for explicitly considering climate risks in enterprise risk reports and ORSA summary reports.
   5. Plans for the internal review of the functions and procedures for managing climate risks.
   6. Plans for developing the skill, expertise, and knowledge for assessing and managing climate risks.

(Optional) If the company has considered using remuneration policies to align incentives with the strategy for managing climate risks and with performance against climate metrics, please describe any such considerations and their status.

(Optional) The Department does not expect the plans relating to organizational structure to be implemented by August 15, 2022. However, if the company has implemented any portion of those plans, please describe the status and when the plans will be fully implemented.