



**PRUDENTIAL AUTHORITY
CLIMATE RISK SURVEY REPORT**

2021

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Introduction

The importance of considering and assessing the impact of climate change and climate-related risks in the financial sector has been highlighted by governments, industry bodies, regulators, and public and private institutions, both locally and internationally.

Climate change has been recognised as an overarching global threat, impacting human, societal, environmental and economic systems through rising temperatures, rising sea levels and an increasing frequency/severity of natural catastrophes and extreme weather events. The Task Force on Climate-related Financial Disclosures (TCFD), created by the Financial Stability Board, recognised in its 2017 report on recommendations pertaining to the disclosure of climate-related financial information, that one of the most significant and misunderstood risks being encountered by organisations relates to climate change.

The International Association of Insurance Supervisors has similarly recognised that climate change as well as the global response to the threats posed by climate change (e.g. the reduction of greenhouse gas emissions and adaptation programmes) may have wide-ranging impacts on the structure and functioning of the global economy and financial system. National Treasury, in its technical paper published in 2020 titled 'Financing a sustainable economy', observed in a similar vein that the increasing physical impact of climate change means that it is an important environmental and social risk that financial institutions need to consider, both in their existing portfolios and in new financing and investment decisions.

The impact of climate-related risks threatens the stability of the financial system and is a source of financial risk that will have an impact on the resilience of individual financial institutions. It is considered a systemic risk to the financial sector due to the uncertainty regarding the magnitude, scope and timing of economic damages from climate change, which could translate to financial risks and adversely affect the income and balance sheets of financial institutions. It therefore warrants the heightened scrutiny and enhanced mitigating efforts of the Prudential Authority (PA) within the context of its mandate and statutory objectives.

The Financial Sector Regulation Act 9 of 2017 (FSR Act) established the Twin Peaks model for financial sector regulation in South Africa. The PA and Financial Sector Conduct Authority were formally established in terms of the FSR Act. The FSR Act delineated clear objectives for the PA in terms of section 33 of the FSR Act to promote and enhance the safety and soundness of financial institutions that provide financial products and securities services; promote and enhance the safety and soundness of market infrastructures; protect financial customers against the risk that those financial institutions may fail to meet their obligations; and to assist in maintaining financial stability.

The acute and chronic nature of climate-related financial risks and the potential impact of such risks on financial institutions necessitate further examination that falls within the supervisory and regulatory remit of the PA from a financial stability as well as a safety and soundness perspective. This prompted the PA to engage financial institutions under its supervision, on a formal basis, through the Climate Risk Survey (survey).

Methodology

The survey was developed as a bespoke supervisory data collection tool intended to present the PA with an opportunity to examine the responses of regulated financial institutions to specific climate risk issues of supervisory focus. The survey design included banks, mutual banks, insurers and financial market infrastructures (FMIs) in its intended scope to gauge a diverse sample of responses from regulated institutions (with differentiated roles in the broader financial sector) on climate risk matters. The PA, in advancing its supervisory mandate to promote and enhance the safety and soundness of financial institutions, sought mandatory responses from the surveyed financial institutions on climate risk issues, with specific focus on the impact of this risk at a microeconomic level.

The TCFD survey conducted by the PA in 2019 was designed with a purposive approach of assessing the implementation of the TCFD recommendations. While the 2021 survey has, to some extent, replicated specific elements that were canvassed previously in the TCFD survey, the responses received in this survey were used to monitor progress (if any) by regulated institutions on climate-related disclosures. The objective of the TCFD survey was therefore to gather specific information about regulated financial institutions' awareness and management of various climate risk-related aspects, including reporting.

Data obtained from the 2021 survey will inform the PA's supervisory and regulatory approach to the topic of climate risk with the objective of driving the PA's prioritisation of its climate risk-related initiatives.

The construct of the 2021 survey was premised on a thematic approach. This approach would enable the PA to gauge, at both a broad and specific level, the extent to which regulated financial institutions were engaging with the topic of climate risk. The specific themes replicated touchpoints in the supervisory mandate of the PA relative to regulated institutions. The survey therefore sought to assimilate the thinking of various financial institutions as these related to climate risk drivers (i.e. physical, transition and liability risks) and their respective impacts on these financial institutions.

The survey also sought to attain information relating to the specific drivers that had initiated and promulgated the consideration of climate risk and specific initiatives taken in enhancing the financial institution's understanding of climate-related risks. In this regard, the PA sought to understand the broader institutional perspectives to climate-related risks and their impact within the financial institution, especially its core business activities and stakeholders.

Climate risk and its priority in institutional strategy was a key focal point of the survey. The PA was intent on establishing insights on how climate risk was dealt with at a strategic level by surveyed financial institutions. To this end, the survey sought a holistic understanding of the priority that was accorded to climate risk by surveyed institutions in their respective business strategies, including alignment with the concepts of 'net-zero', 'carbon neutrality' and 'carbon footprint' in their business activities.

A key focus area in developing an understanding of business strategy and climate risk was a prospective enquiry about opportunities arising from climate risk, with specific reference to green

initiatives and investment timelines that were being contemplated by supervised institutions. The PA's approach to governance in the survey was intended to offer insights in terms of the priority levels accorded to climate risk by the boards of directors of the respective financial institutions. The survey solicited specific information to gather evidence of actual discussions that had taken place at a board of directors (board) level relating to climate risk. These questions were intended to gauge the level at which climate risk and its impact was institutionalised and embedded in the governance frameworks of financial institutions as a specific focus area.

Risk management was also a core focus area, given the variable nature and impact of climate risk (i.e. the acute and/or chronic nature of climate-related risks and their impact from a timing perspective). The survey sought to gain insights into the extent to which institutions had considered climate-related risks within the context of an established risk management framework. The intent in this section of the survey was to ascertain how climate-related risks were being considered in risk evaluation parameters (i.e. risk appetite and the time horizons being contemplated), specifically in relation to physical and transition risks within the risk management framework. In the evaluation and assessment of climate risk, the survey explores the methodology and data sources financial institutions apply, and the impact and severity of climate-related risks. Given the acute nature of physical climate risks, the survey gauges how institutions had risk-rated the impacts of specific physical risks on the business. This enquiry extended to transition risks in a similar manner.

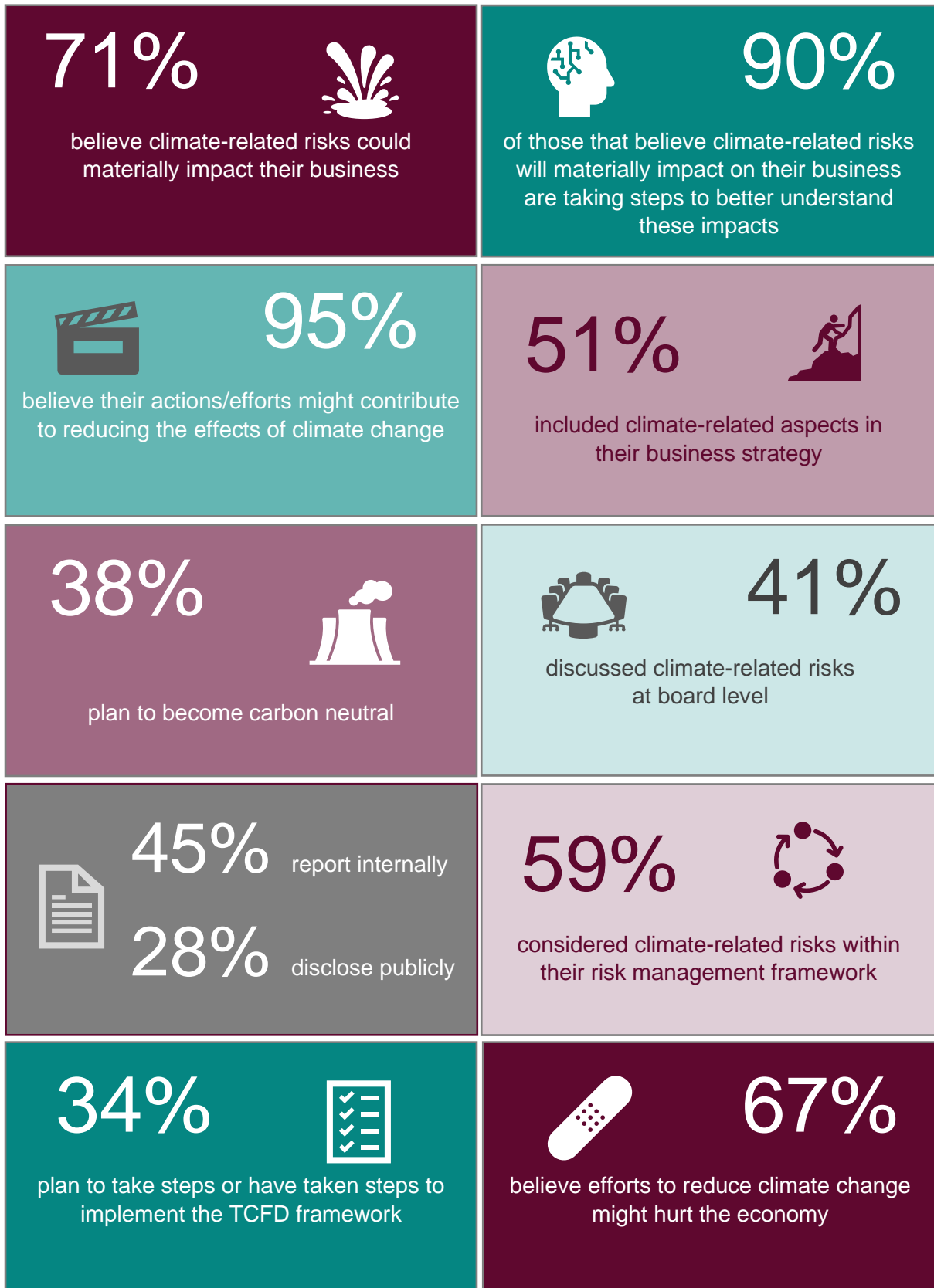
The impact of climate risk on the financial soundness of institutions is of paramount concern to the PA. Of specific concern is the impact on the financial institution's balance sheet as well as corresponding regulatory capital implications. Linked to financial soundness and the quantification of climate-related risks, the survey focused on specific stress-testing methodologies that institutions had applied in the formulation of an impact assessment of climate change.

Given the importance of climate-related financial disclosures as espoused in terms of the TCFD principles, the qualitative aspects of disclosure were assessed, including the alignment to the TCFD recommendations. The survey design dovetailed TCFD focus areas and therefore concentrated on four thematic areas that represent core elements of how organisations operate, namely governance, strategy, risk management, and metrics and targets.

The survey finally touched on the level of operational resourcing dedicated to climate change and the potential impact on operational systems. This component of the survey also extracted opinions on the challenges experienced by institutions relating to potential inhibitors to progress in climate risk-related work.

The results of the survey, discussed below, focus mainly on insurers, banks and FMIs. Even though the results from the mutual banks were analysed and internalised for the purpose of formulating a supervisory and regulatory approach, the results were excluded from the industry report due to the number and the size of the institutions, as they may negate the anonymity of the responses provided in confidence to the PA.

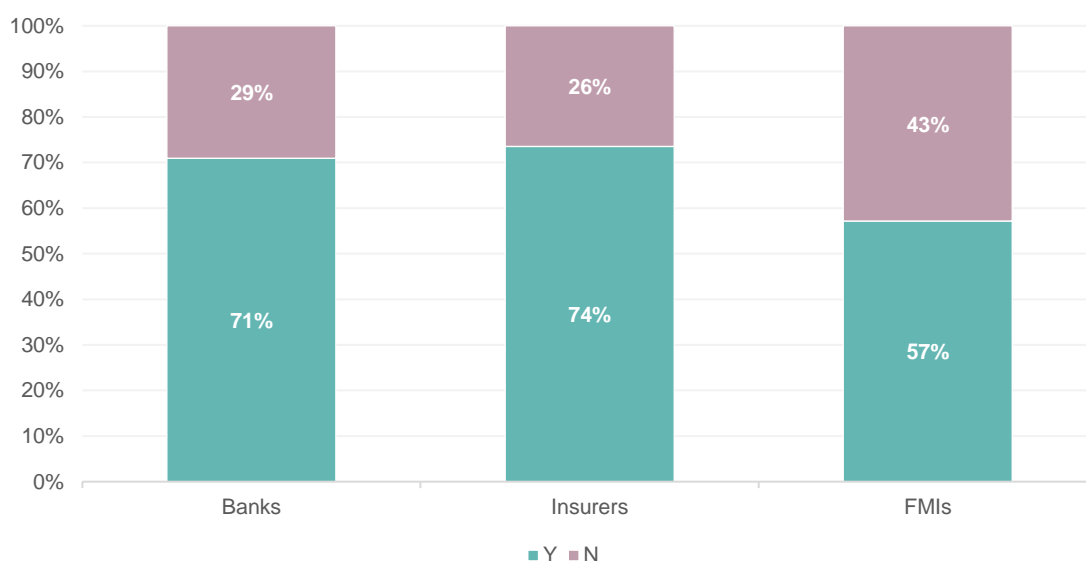
Summary



Industry awareness

The survey data indicated that in most instances financial institutions are of the view that climate change could have a material impact on their business (Figure 1). This view is aligned with the global recognition that climate change and/or adaptation/mitigation interventions to reduce the impact of the risk will be a source of disruption to the financial sector and consequently the core business of individual financial institutions. The materiality of this impact will differ between these institutions, depending on the institution's particular strategies, operations and business models.

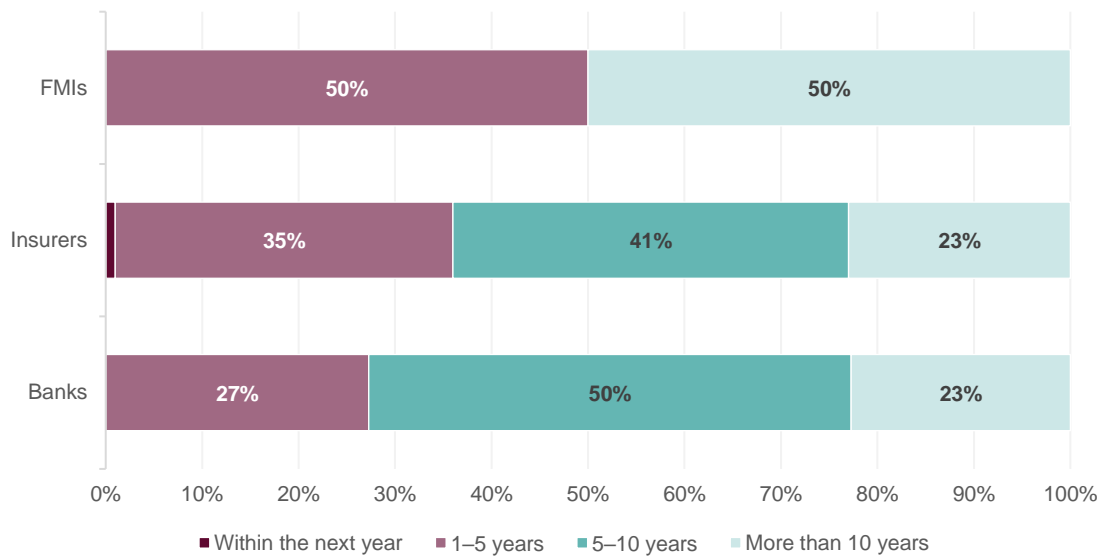
Figure 1: Do you believe climate-related risks could have a material impact on your business?



Insurers who indicated that climate-related risks would not materially affect their core business cited their specific product offering as the rationale for this view. Linked insurance products in the life insurance market or legal expense insurance in the non-life market were offered as examples of why climate-related risks may not materially affect these specific insurers. Banks ventured a similar rationale: specific product offerings in niche markets would be immune to material impacts of climate-related risks. Banks in some instances did, however, indicate that while direct exposure to climate-related risks was not in contemplation, indirect exposure was still within consideration.

A significant number (35%) of financial institutions surveyed indicated that climate-related risks will materially manifest in the business models of these institutions within a five-year time horizon, while in some instances financial institutions (41%) indicated that the impact of climate-related risks will materialise within a 5- to 10-year horizon, and in other instances financial institutions (24%) were of the view that the impact of climate-related risks were beyond a 10-year horizon. The PA did note one institution that expected a material impact over the next year (Figure 2).

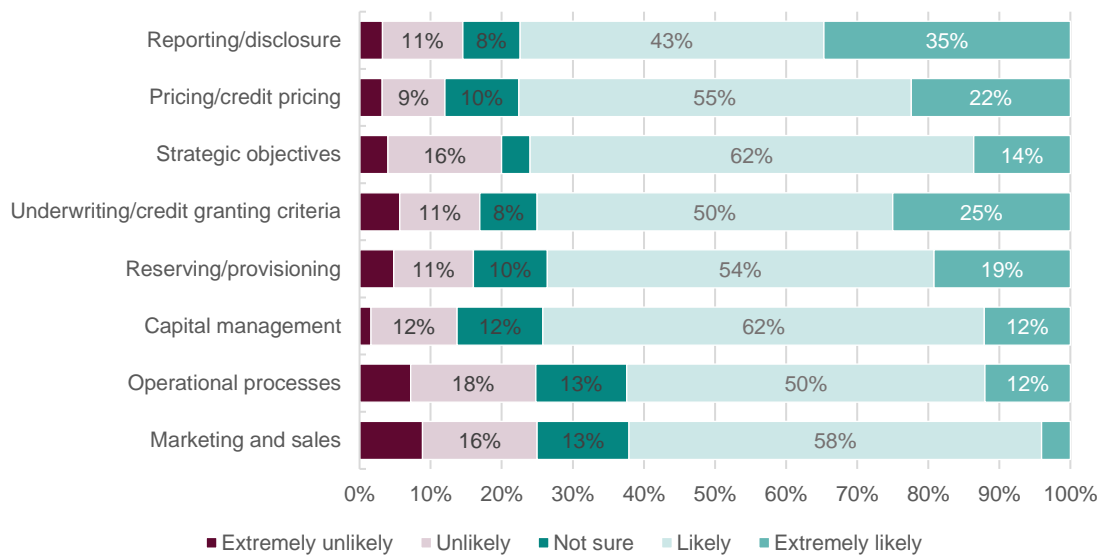
Figure 2: Time horizon for climate risk manifestation



The time horizon for climate-related risks to materialise is dependent in part on the speed and vigour at which the transition to a net-zero carbon environment transpires globally. South Africa’s global commitment to a net-zero carbon environment by 2050 and the costs associated with such a commitment necessitates a degree of urgency in the just transition. Financial institutions would need to factor in this consideration in terms of longer-term investment strategies and the sustainability of the impact of these strategies in terms of South Africa’s global commitment to a net-zero carbon environment.

Survey data indicated that climate change will most likely impact most business areas of financial institutions (Figure 3). Reporting, both internal and external to the institution, as well as pricing were indicated as being the most significant areas of concern.

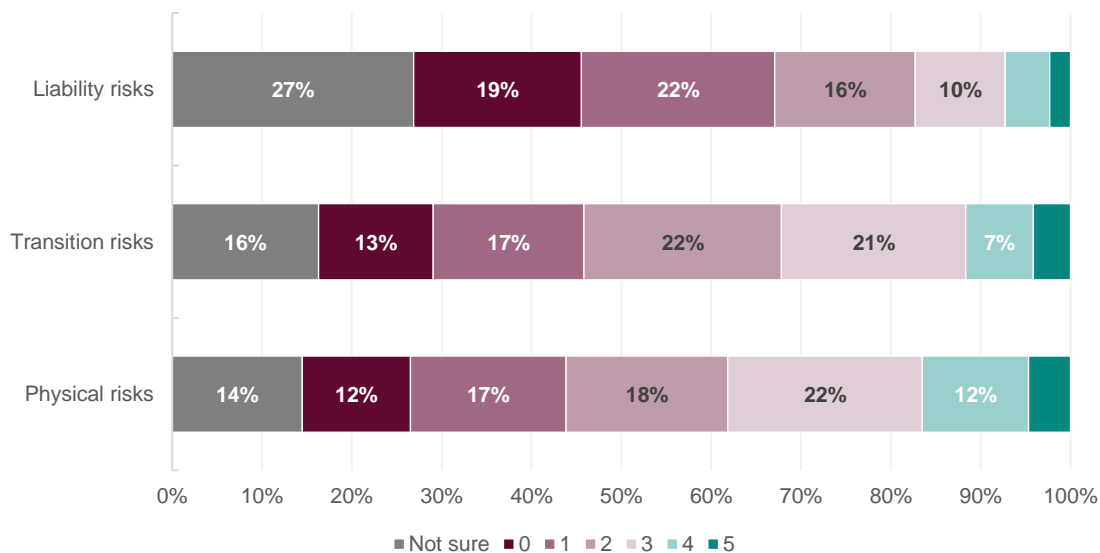
Figure 3: Business areas that could be affected by climate-related risks



The wide-spread disruptive effects of climate risk necessitate an acute understanding by financial institutions of the potential implications to strategy, operations and business models. The significant drive internationally towards standardised public disclosures of climate-related information to permitting stakeholders to make appropriate and informed investment and risk management decisions will result in increased availability and the quality of data. Reporting is discussed in more detail below.

Figure 4 shows the potential impact expected from climate-related risks.

Figure 4: Severity of impact from different types of climate-related risks (0 = no impact, 5 = significant impact)



In most cases, financial institutions indicated a moderate to severe impact of climate-related risks on the institution. Respondents further indicated that there was still a significant element of uncertainty around the potential impact of climate-related risks. The PA was encouraged that at least 80% of

financial institutions surveyed either have initiatives in place or are planning initiatives in the near future to improve the institutional understanding of climate-related risks. Banks (64% of those surveyed) and insurers (53% of those surveyed) indicated that they already had climate-related initiatives in place. Although a wide range of possible initiatives were indicated in terms of improving individual institutional understanding of climate-related risks, the focus remains on internal research and awareness sessions as part of a wider capacity-building initiative.

Increasing the understanding of how climate-related risks could potentially impact a financial institution is a critical step to proactively mitigate and manage these risks. The PA has noted with concern that, in some instances, financial institutions are of the view that climate-related risks do not warrant further understanding, given that the risk is uncertain with unknown implications.

The PA noted with interest that most financial institutions surveyed (52%) indicated that the responsibility for climate-related risks should be located with government. In fact, more than 90% of financial institutions surveyed indicated government as one of the top three choices. Regulators (60%) were also among the top three choices by financial institutions for assuming responsibility for climate-related risks. Financial sector regulators are responsible for financial sector laws and regulations, and for supervising financial institutions in accordance with such laws and regulations. Despite these supervisory obligations, it is an expectation that supervised financial institutions can play a significant role in the response to climate-related risks. There is an increased focus internationally on the importance of the role of regulators in the response to climate-related risks and guiding principles are therefore being developed internationally in this regard.

The financial sector can play an important and significant role in supporting the response to climate-related risks through adaptation and mitigation by mobilising the financial resources required for the transition. The PA was encouraged to note that most financial institutions surveyed (80%) were of the view that the financial sector can contribute to reducing the effects of climate change. Given the increased pressure internationally to transition to a net-zero carbon environment and the importance of the role the financial sector could play in such a transition should not be understated. Financial institutions in the pursuit of this objective would, however, need to foster an acute understanding of the impact that climate-related risks may have on strategy, operations, business models and balance sheets. The importance of this consideration is further underlined by the fact that most financial institutions (95%) indicated that their own actions/efforts may contribute to reducing the effects of climate change.

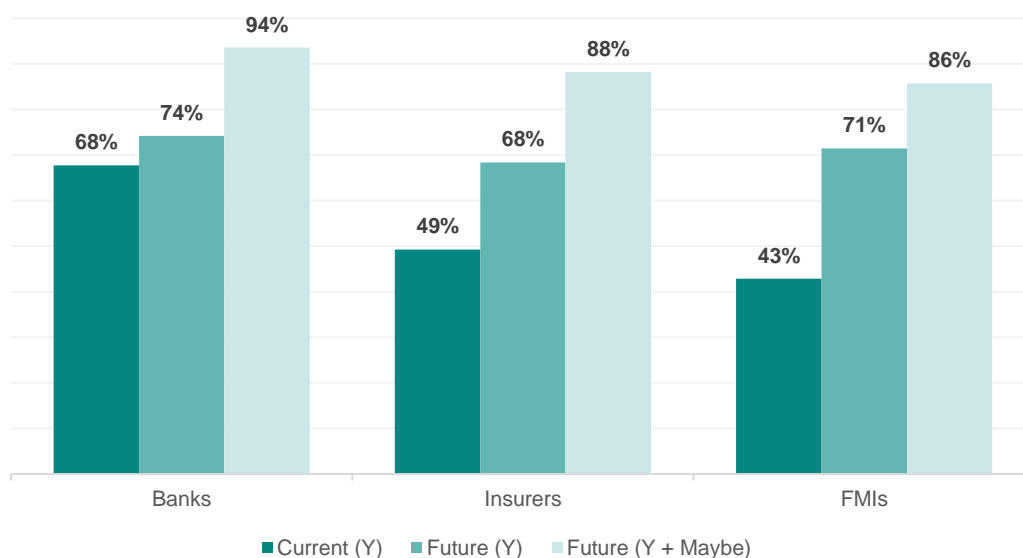
In order to reduce the potential impact of climate change and to mitigate the irreversible consequences it may bring, financial institutions will have an important role to play in this transition. Apart from the risks that such a transition may bring, it could also bring various opportunities that will benefit the broader economy. Uncertainty about the impact of a move to a green economy was highlighted in the survey responses, with 67% of financial institutions being of the view that the efforts to reduce the impact of climate change may have adverse effects on the economy, while 20% of institutions have a more definite view that the transition will have a negative impact on the economy.

Strategy

The importance of integrating key risks and opportunities into a financial institution's overall business strategy cannot be overstated, as the strategy drives operational activities and decisions in all areas of the business.

Financial institutions surveyed (51%) responded that climate-related risks were considered in the institution's business strategy (Figure 5). Furthermore, these respondents indicated that while climate-related risks were considered in their business strategy, in many of these instances these considerations had not necessarily translated into formalised policies and frameworks. The PA noted encouragingly that a significant proportion of financial institutions surveyed (68%) indicated that climate-related risks would be considered in their business strategy in the future. Where respondents (49%) had not considered climate-related risks in their strategy discussions and action plans, the common impediments included resource constraints and the 'wait and see approach' being adopted in anticipation of regulatory instruments being issued and direction from parent companies, if part of a group structure. In some instances, respondents indicated that climate-related risks did not affect business operations and that consideration to climate-related risks would only be initiated where climate risk scenario analysis results necessitated further action.

Figure 5: Consideration of climate risks in business strategy



The PA noted from the survey data that more than half of all banks surveyed that had considered climate-related risks in their business strategies, had done so in different business areas, resulting in climate risk forming part of operational risk plans. In some instances, banks had embarked on formalising holistic and overarching sustainability strategies, while in other instances, banks alluded that such sustainability strategies form part of general discussions and may be given greater emphasis in the future. Respondents who indicated alignment with the Paris Agreement, in principle, indicated that institutional climate risk strategies would be formalised once government had published formal commitments for the country and promulgated enabling legislation. The PA has noted the regulatory

compliance approach to climate risk as one of the drivers in the development of institutional strategy addressing the impact of climate change in financial institutions.

Foreign branches of banks indicated that guidance from the group/controlling company and foreign regulators was awaited in terms of climate-related risks.

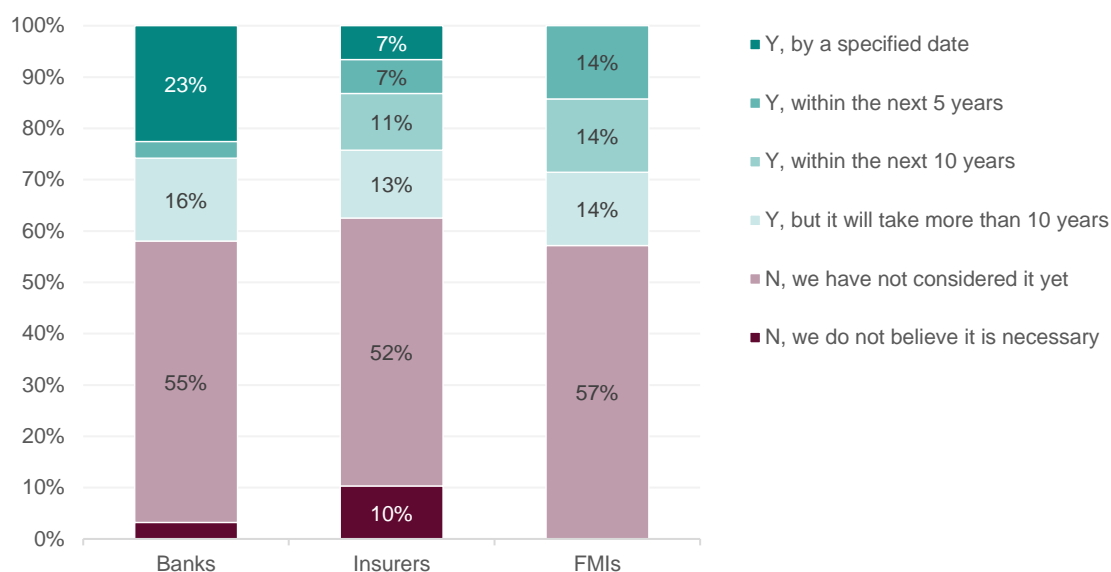
Most respondents in the banking sector who have not considered climate-related risks in their business strategies have adopted this approach in the belief that climate-related risks would not have a material impact on the institution's business but did not rule out the possibility that this risk could be considered in the future. Other respondents acknowledged that, given the focus on these risks globally, inaction could be associated with reputational risk. A respondent stated that while their respective business strategy had been adapted materially due to the COVID-19 pandemic, climate-related risks would only impact strategic objectives in the long term.

In terms of insurers, the results of the survey indicated that while respondents in the sector had considered and integrated climate-related risks in strategy overall, this approach (as with banks) had yet to be formalised. Most respondents indicated that climate risk was not considered, supported by the view that the institution's business was not materially impacted by climate risk. In some instances, respondents indicated that the consideration of climate risk would only transpire where scenario analysis results indicated the need for modifications to the institution's strategy.

FIMs surveyed indicated that three respondents had considered climate-related risks in their overall business strategy. The PA noted that approximately half of respondents stated that climate-related risks are currently not a material risk.

Adhering to the obligations of the Paris Agreement is a challenging undertaking, requiring substantial investment from both the public and private sector. Many financial institutions indicated, under the general awareness section of the survey, that their own actions can potentially assist in reducing the effects of climate change. A significant number of entities have, however, not yet considered the commitment to carbon neutrality. The PA noted that some banks and insurers have already set target dates for carbon neutrality. The drive towards carbon neutrality presents both transition risk and opportunity for these sectors. Although entities might face some risks with a carbon neutral move, they might also face future risks by not moving at all (Figure 6).

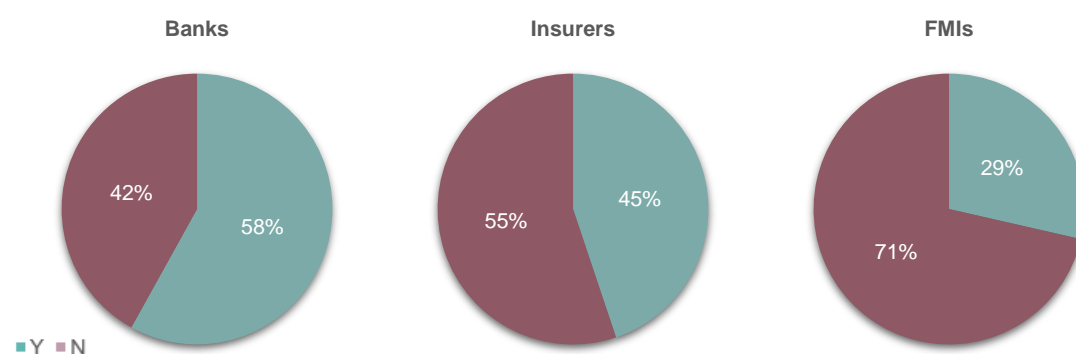
Figure 6: Is your organisation planning to become carbon neutral?



Banks have announced commitments to net-zero emissions by 2050 and have set interim targets for net-zero emissions for their operational footprints by 2030. Some banks and insurers have incorporated their respective carbon footprints into their accounting policies and their annual reports. A specific insurer advised that a strategic initiative was encouraging investee companies to decarbonise, particularly the highest carbon-emitting companies, whereas another respondent did not believe carbon neutrality will be possible.

The PA was encouraged to note from the survey data that many financial institutions had started to measure their carbon footprint despite these institutions refraining on internal decisions to attain carbon neutrality (Figure 7). The measurements are largely based on the institutions' own operations but about a third of institutions surveyed have extended their carbon footprint measurement to their investment portfolios and supply chains.

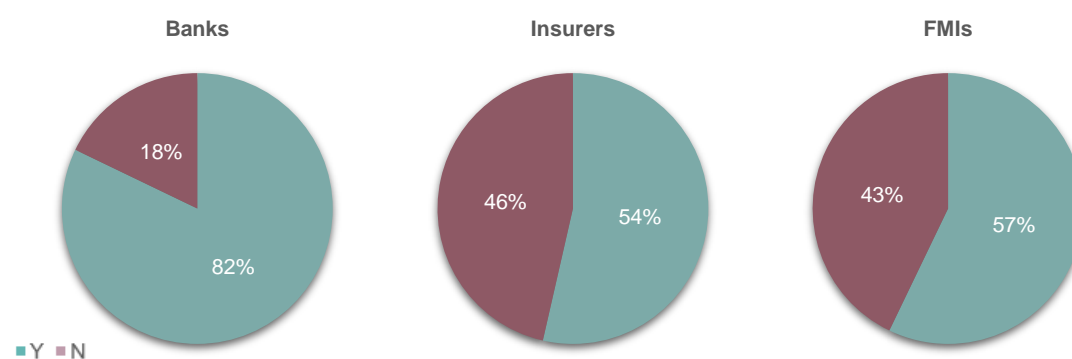
Figure 7: Does your organisation try to measure its own carbon footprint?



A large majority of respondents (76%) indicated no formal membership to any networks/initiatives related to the net-zero Paris Agreement obligation nor had they deployed climate risk-related tools/methodologies within their institutions. Respondents did, however, state that there was broad commitment/alignment to initiatives such as the United Principles of Responsible Banking, Paris Pledge for Action, Collective Commitment to Climate Action, United Nations Global Compact, United Nations Principles for Responsible Investments, Partnership for Carbon Accounting Financials, Carbon Disclosure Project and Montreal Pledge, and voluntarily disclosed information in line with the TCFD principles. Furthermore, some banks are determining methods to calculate financed emissions.

Financial institutions (59%) confirmed that opportunities could be foreseen for climate-related products and services. More than half the respondents of each sector were of the view that climate-related opportunities would materialise, and these could potentially help drive the transition to a low carbon economy in a profitable way (Figure 8).

Figure 8: Does your organisation foresee climate-related opportunities?



While some institutions have investigated business opportunities for the short, medium and/or long term, other institutions have not, to date, considered such opportunities. In this regard, most banks cited transition finance as an opportunity. The issuance of green bonds and enabling listing platforms were also identified as common opportunities. Respondents also mentioned that new insurance products to support the transition to a low carbon economy could be an innovative way to create opportunities.

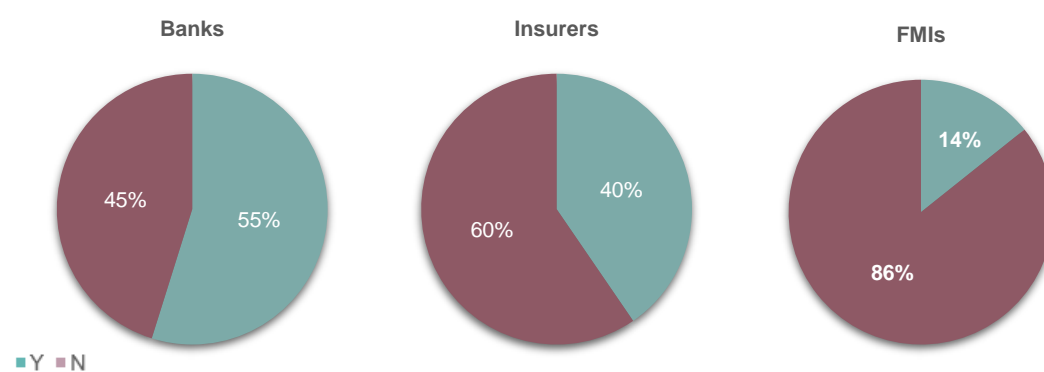
The PA noted that financial institutions have also started to promote and support 'green' sectors. This was mostly done by supporting clients with green initiatives and setting targets for investment activities. Respondents also indicated setting targets for lending activities (19%) and insurance (25%).

Governance

Financial institutions surveyed indicated that climate-related risks are considered in strategy, which is indicative of the level of priority that some institutions have accorded to climate-related risks. The effective execution of strategy is driven in part by institutionalised governance structures that influence how the institution's objectives are set and achieved; how risk is identified, monitored and addressed; and how performance is optimised. Good governance promotes, preserves and strengthens stakeholder confidence and, most importantly, it ensures that the organisation is well placed to respond to a changing external environment.

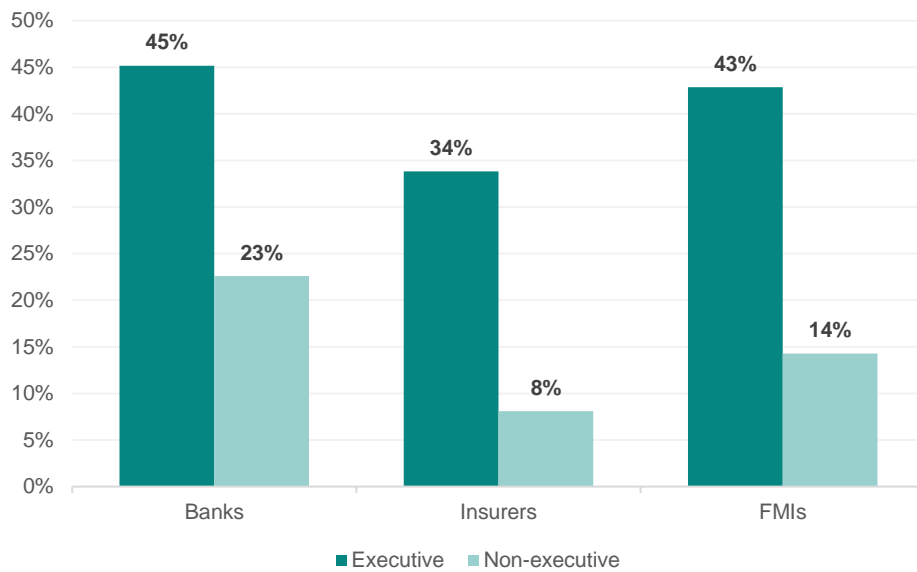
The PA noted that respondents (42%), which included most of the larger banks and insurers, had discussed climate-related risks at a board level. Smaller financial institutions have not discussed climate-related risks at great lengths at a board level and are still in the process of identifying the impact these risks might have on their business (Figure 9).

Figure 9: Climate-related risks discussed at board level



Survey observations indicated that, for institutions that indicated climate-related risks were discussed at a board level, in some instances (35%) these discussions were covered under a separate and standing agenda item. Having a separate and standing agenda item increases the focus on the topic and allows board members to engage more regularly. Another important aspect that could increase focus on the topic is having an owner/responsibility assigned at a board level (Figure 10).

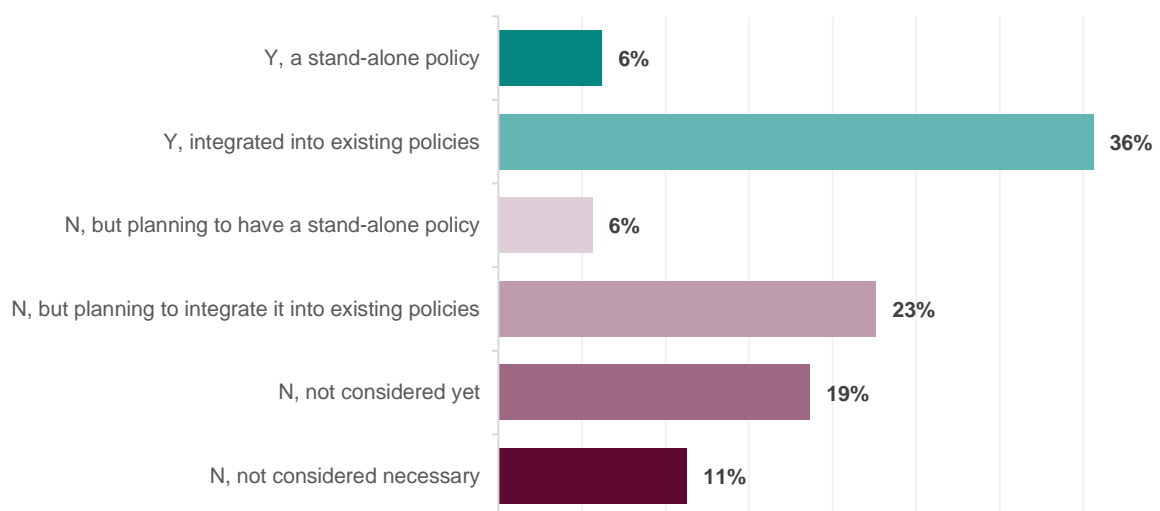
Figure 10: Board member responsible for climate-related risks



In some cases, financial institutions (11%) had a non-executive board member specifically responsible for climate-related risks, while some institutions (36%) indicated that an executive committee member was specifically responsible for overseeing climate-related risks. In the instance that there was a non-executive board member appointed to oversee climate-related risks, there was also an executive committee member assigned to this risk type (Figure 10).

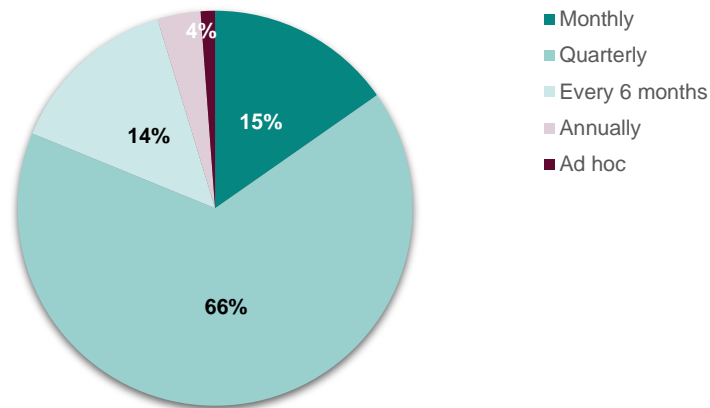
The PA noted that financial institutions (42%) had integrated climate risk into an existing policy or had a stand-alone policy in place, while other institutions (29%) were planning to do so (Figure 11).

Figure 11: Climate-related risk policy in place



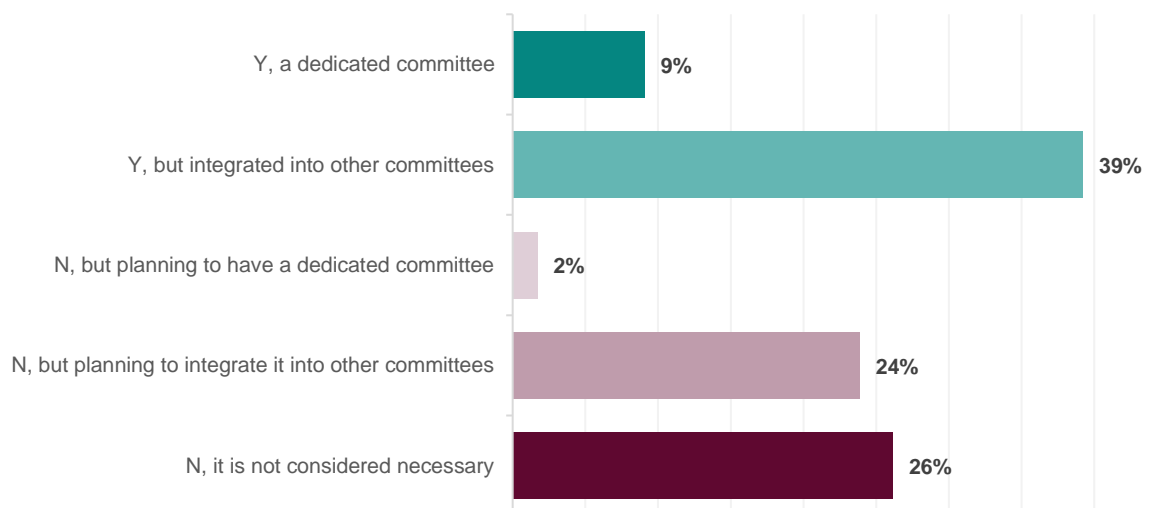
In terms of governance committees responsible for climate-related risks, the survey indicated that financial institutions (48%) either had a dedicated committee or another committee that integrated climate-related risks into their mandate, of which the majority meets on a quarterly basis (Figure 12).

Figure 12: Frequency of meetings of climate-related risk committee



Furthermore, some financial institutions (26%) indicated that planning was underway to have a dedicated committee oversee climate-related risks or to integrate the committee into other established committees. Other financial institutions (26%) indicated that a committee considering climate-related risks was not necessary at present. This view was observed mainly in smaller financial institutions where climate risk is not material or would not have a significant impact on the entity (Figure 13).

Figure 13: Committee in place that deals with climate-related risks



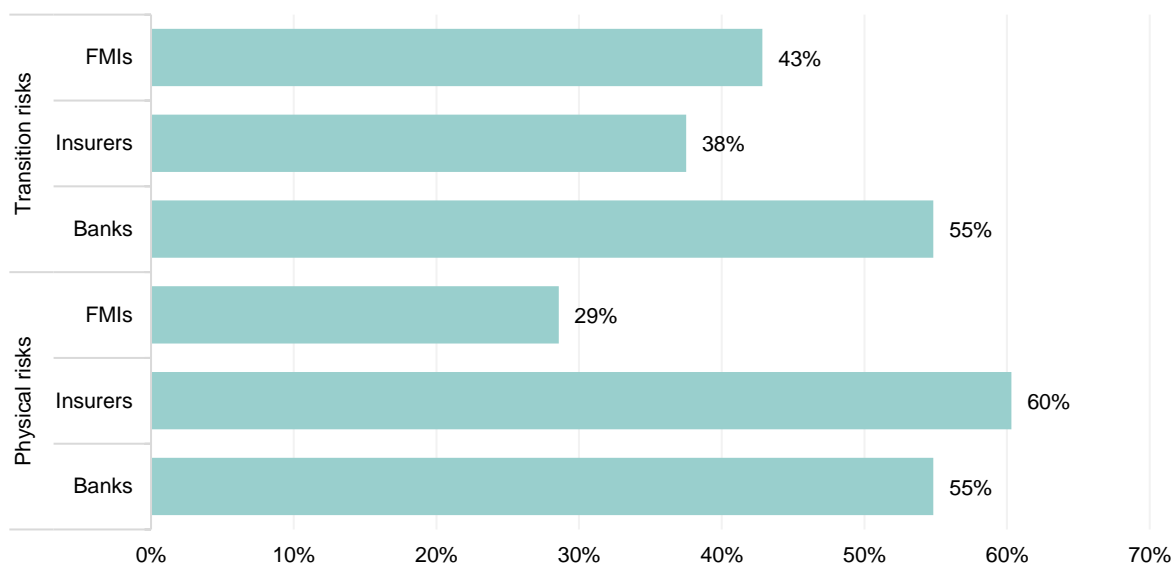
Risk management

The risk management framework of an organisation enables the process of identifying, assessing, monitoring, managing, mitigating and reporting all material risks faced by the organisation in its entirety. When embedded appropriately into an organisation's operations, it becomes a critical tool for management and board decision-making, as risk management pertains to operational and strategic matters. It is crucial to have a framework that is sufficiently forward-looking to identify any current and emerging risks that could potentially have a material impact on the operations of the organisation. Such a tool enables an organisation to be more pre-emptive and proactive in its approach to managing risks.

Identifying specific climate-related risks that could have a material impact on the operations of an organisation poses many challenges. Some of these risks will materialise over a longer time frame than is usually considered within an organisation's risk management framework. In addition, the lack of good quality data to support the risk management process is often cited as one of the major challenges. However, given the significant drive to a more sustainable economy, both locally and internationally, it becomes critical for an organisation to understand how its operations and/or strategy will be affected. It is not only about the effective management of risk, but also about continually adapting its business model to ensure long-term sustainability.

Figure 14 indicates the percentage of financial institutions that are currently considering climate-related risks within their risk management frameworks.

Figure 14: Consideration of climate-related risks within the risk management framework

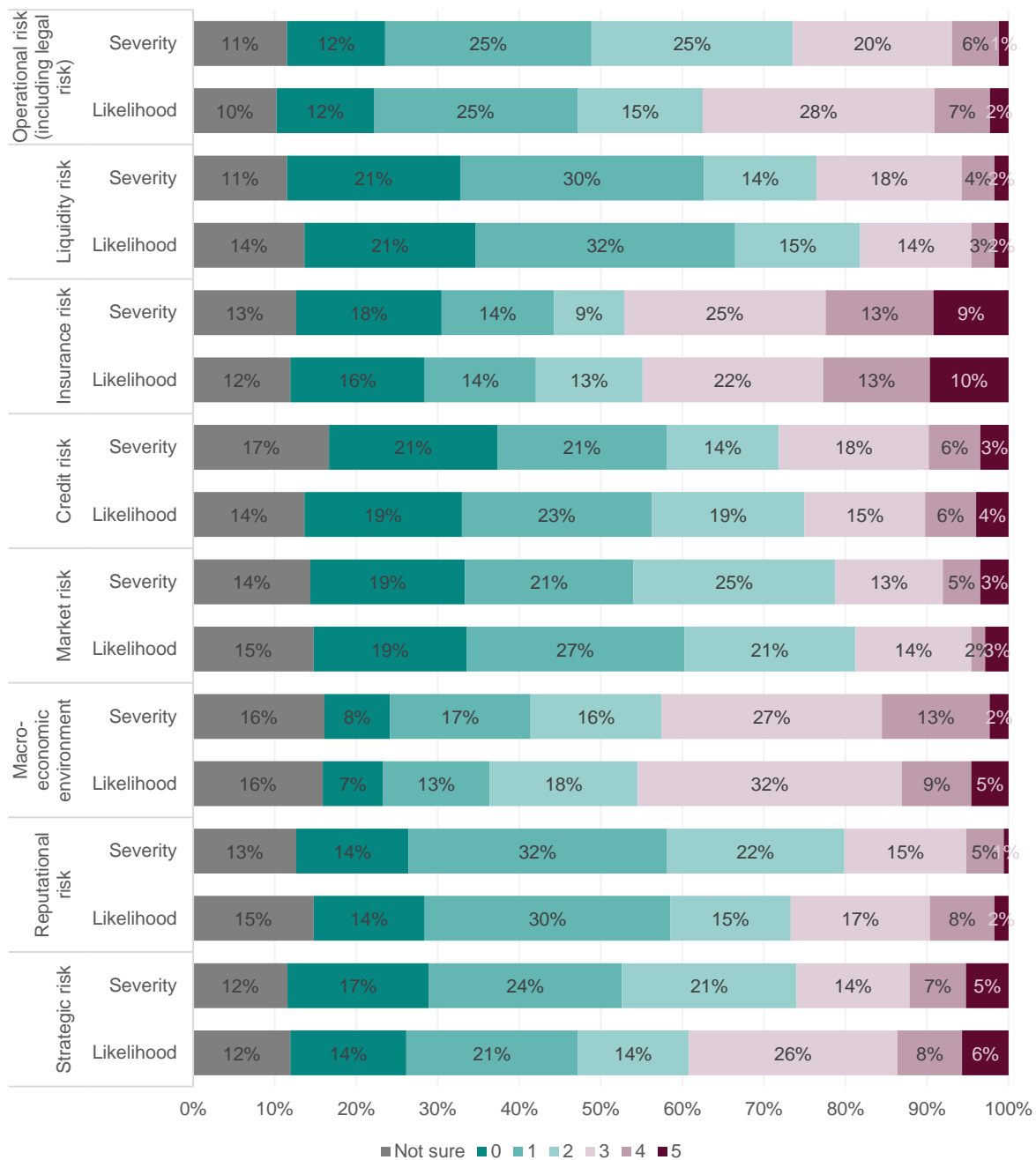


Financial institutions surveyed (58%) are considering physical risks within their framework, while other institutions (41%) are considering transition risks. The PA observed that, in the insurance sector, the consideration of physical risks is much more prominent compared to transition risks, given that insurers (non-life) traditionally see exposure to physical risks in the insurance policies they issue. However, the

importance of considering transition risks has been on the rise due, in part, to the net-zero commitments made by countries, industries and organisations.

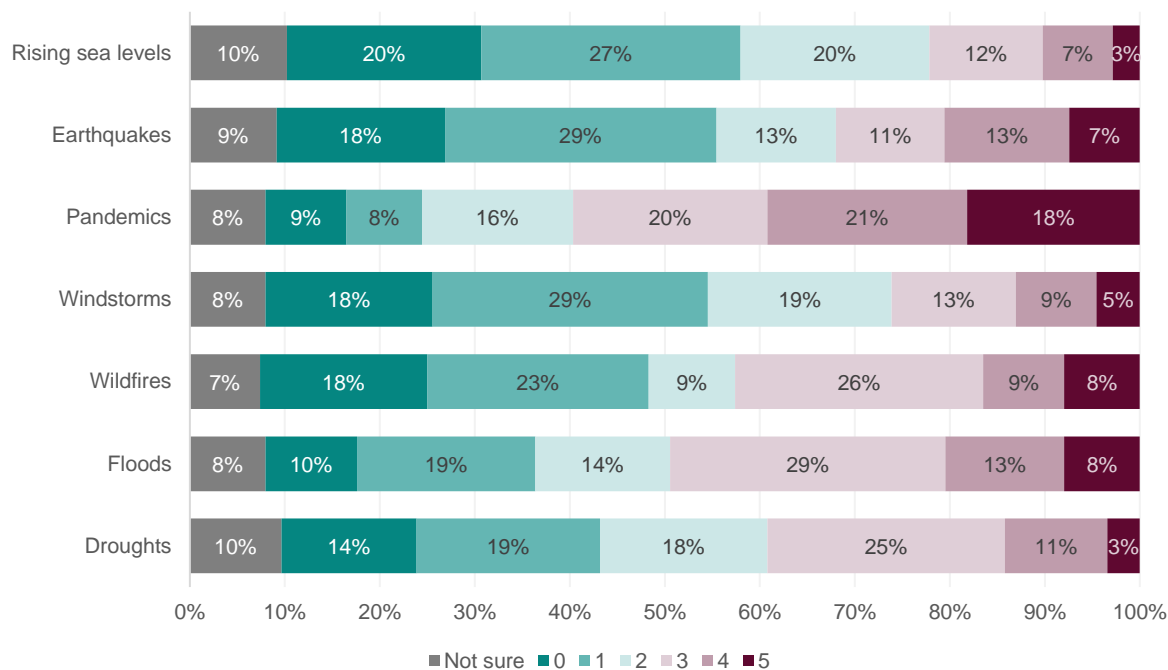
Most institutions (as depicted in the figure below) have indicated a moderate to severe impact to most areas of the business as a result of physical climate-related risks. This observation illustrates the potential wide-spread implications of these risks and the complexity to effectively manage and mitigate these risks. An important note from Figure 15 is that, apart from a moderate to severe impact, many respondents indicated that there is a varying likelihood that these risks will occur.

Figure 15: Expected impact from climate-related physical risk (0 = no impact, 5 = extremely likely/significant impact)



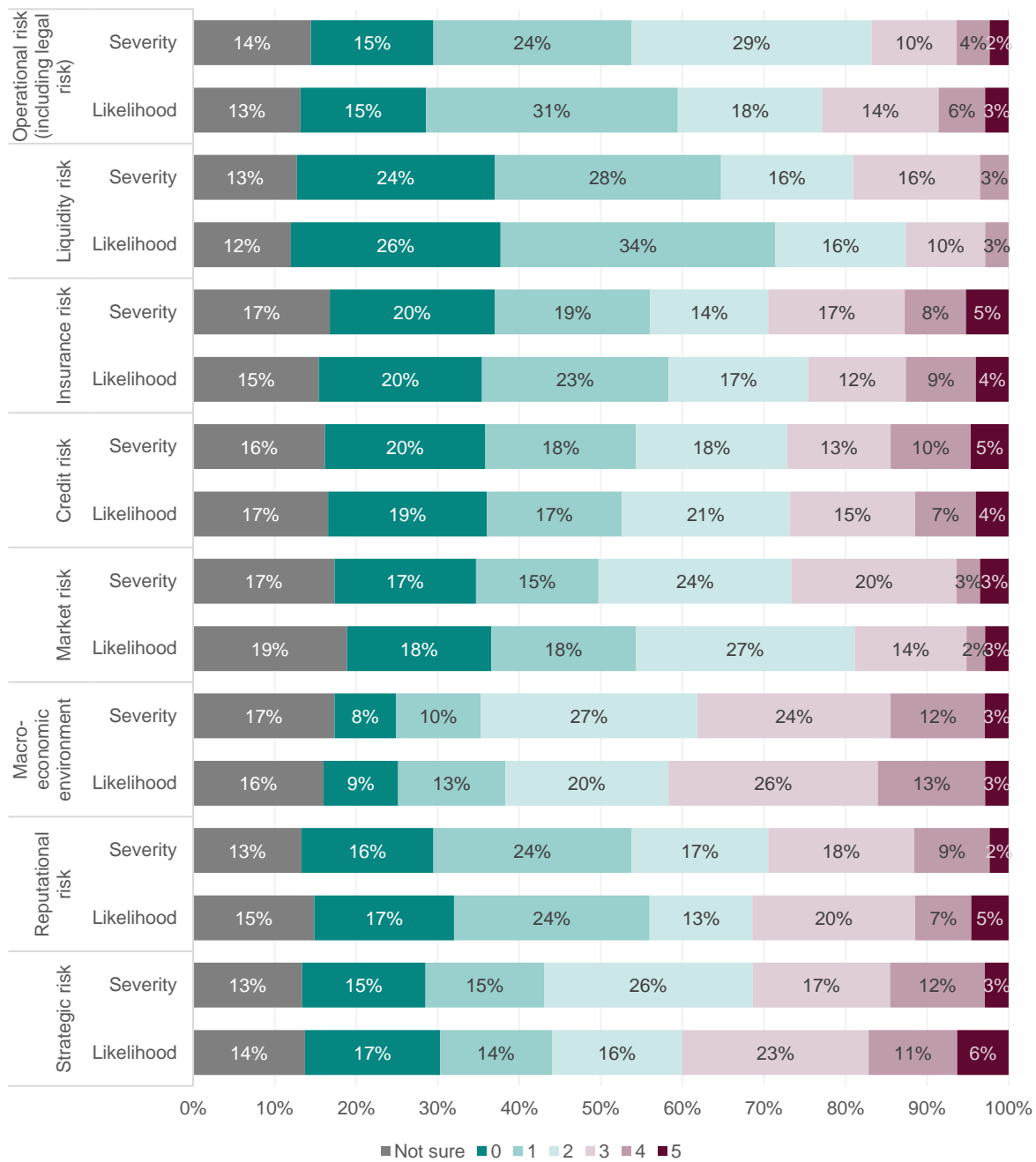
Pandemics, wildfires, floods and droughts have been highlighted as physical risks that could pose the most significant challenges to financial organisations. Approximately 20% of respondents indicated that all these events would have a moderate to severe impact on their business, further highlighting the broad risk spectrum that needs to be considered (Figure 16).

Figure 16: Expected impact from different types of physical risks (0 = no impact, 5 = significant impact)



Like physical risks above, many institutions also expect a moderate to severe impact from transition risks, as shown in Figure 17. Again, many organisations indicated that transition risks are likely to be transmitted through different risk areas.

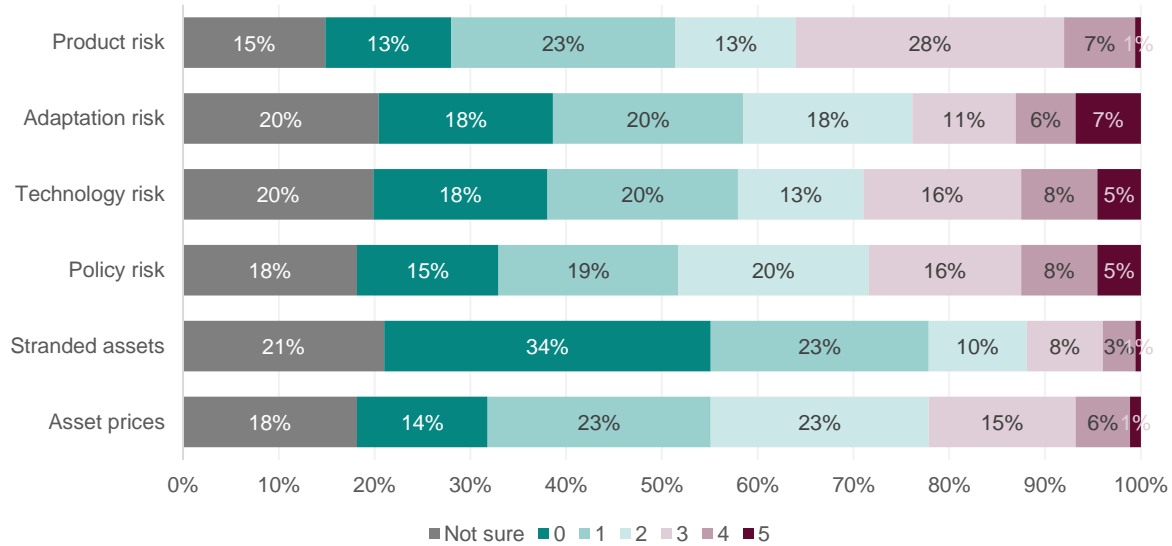
Figure 17: Expected impact from climate-related transition risks (0 = no impact, 5 = extremely likely/significant impact)



There is a higher level of uncertainty on the expected impact from transition risks on the business model of financial institutions (Figure 18). Climate adaptation strategies will play a significant role in reducing transition risk for an organisation but can also introduce significant risks if not implemented diligently. Many institutions indicated that the speed at which technology is evolving in the climate space as well as the rate at which policies and regulations are being implemented will have a moderate to severe impact on organisations. The consideration of climate-related aspects within product design could

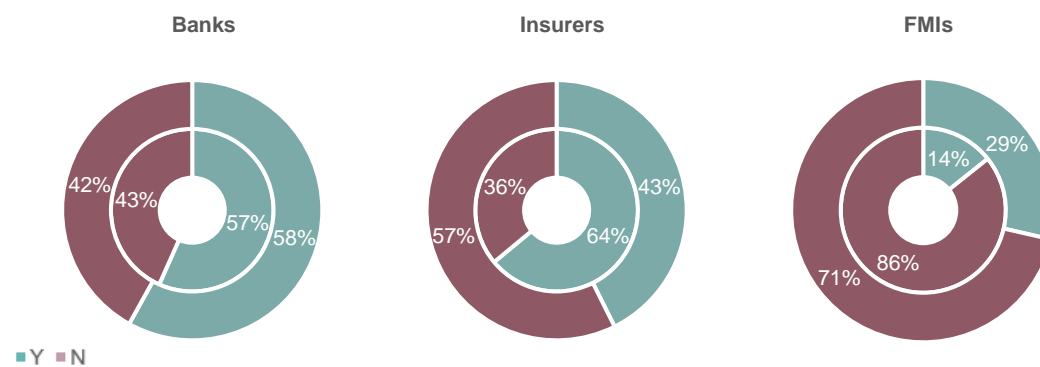
become increasingly important to manage potential future risks and exposures, and to unlock new opportunities.

Figure 18: Expected impact from different types of transition risks (0 = no impact, 5 = significant impact)



A significant number of organisations are using or are planning to use risk mitigation strategies for the management of physical and transition risks, as highlighted in Figure 19. These strategies will assist in keeping risk exposures within the targeted risk appetite levels of the organisation and could protect balance sheets against significant loss events.

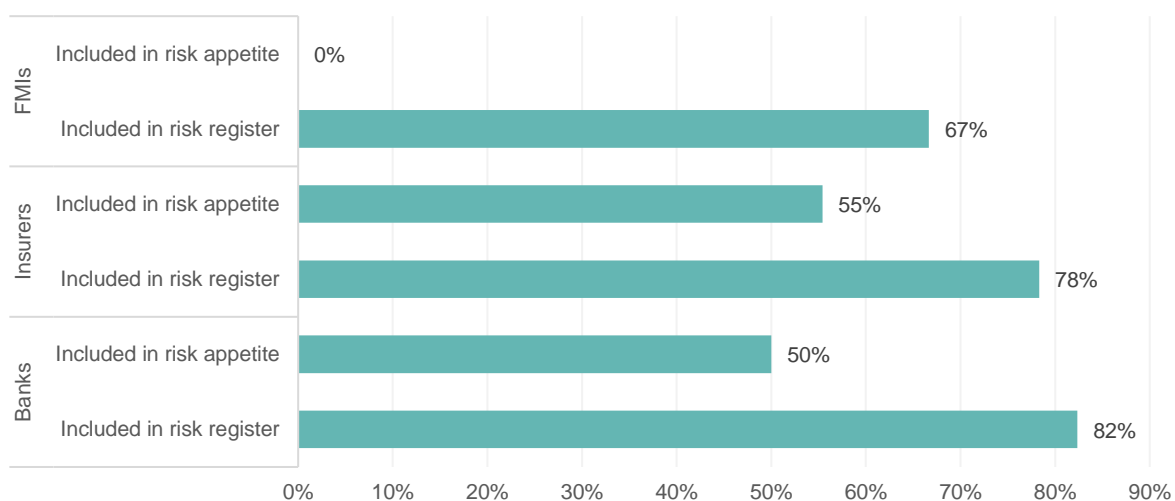
Figure 19: Risk mitigation strategies in use or planning to be used (inner ring: physical risks, outer ring: transition risks)



The rest of this section considers those institutions that have indicated the inclusion of climate-related risks within their risk management framework.

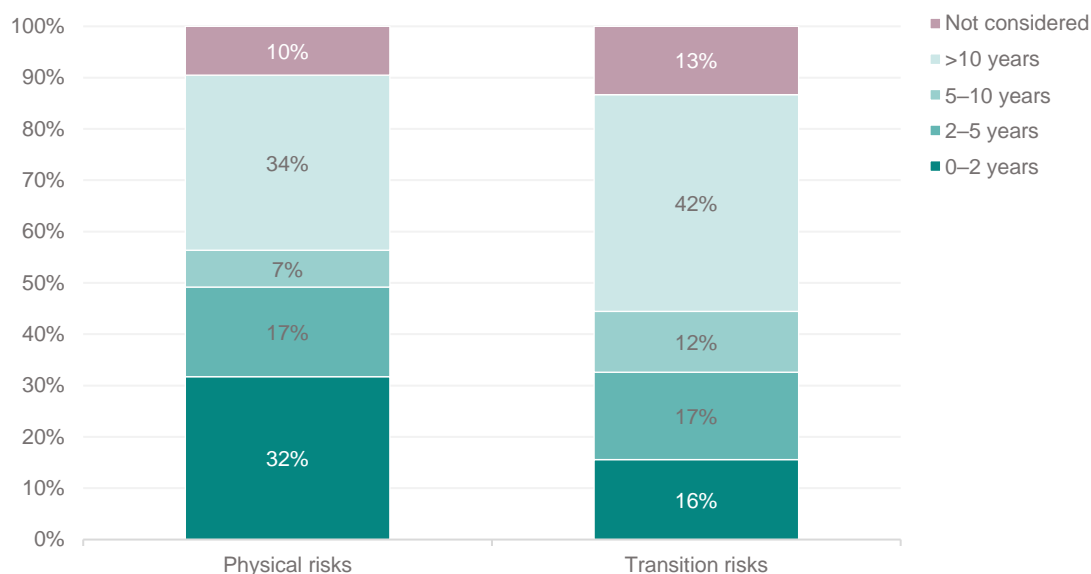
Most of these institutions have included climate-related risks on their risk register and some have considered it within their risk appetite, as indicated in Figure 20. Incorporating these risks on their risk registers or risk appetite statement enables institutions to focus and report on these matters more frequently, which increases transparency to senior management and institutions' boards and subcommittees. It also allows for risk to be considered more explicitly as part of operational and strategic decision-making.

Figure 20: Consideration of climate-related risks within risk register and risk appetite



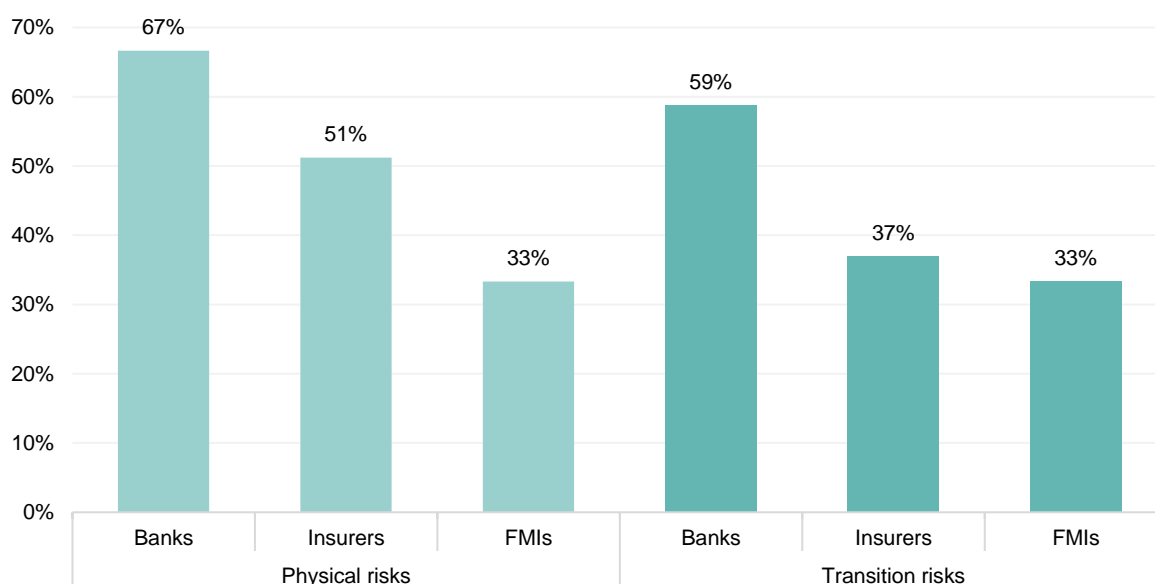
Institutions currently assess transition risks over a slightly longer time horizon than physical risks. A significant portion of institutions are assessing the risk over a time-horizon longer than 10 years. This observation was similar across different types of financial institutions (Figure 21).

Figure 20: Time horizon over which climate-related risks are assessed within risk management frameworks



An important part of assessing climate-related risks is to have tools and models that can quantify the impact from these risks as far as possible (Figure 22). More than half of the banks that included climate-related risks within their risk management framework are using tools and models as part of their risk assessment process. It was evident that tools and models are more widely used to assess physical risks relative to transition risks and are more prominent in the insurance sector.

Figure 21: Use of tools and/or models in climate-related risk assessments



Most institutions use both internal and external data sources as inputs to these tools and models as well as other parts of the risk assessment process (Figure 23). More than half of the institutions use both quantitative and qualitative data sources to enhance their risk assessment process (Figure 24).

Figure 22: Use of external and/or internal data sources

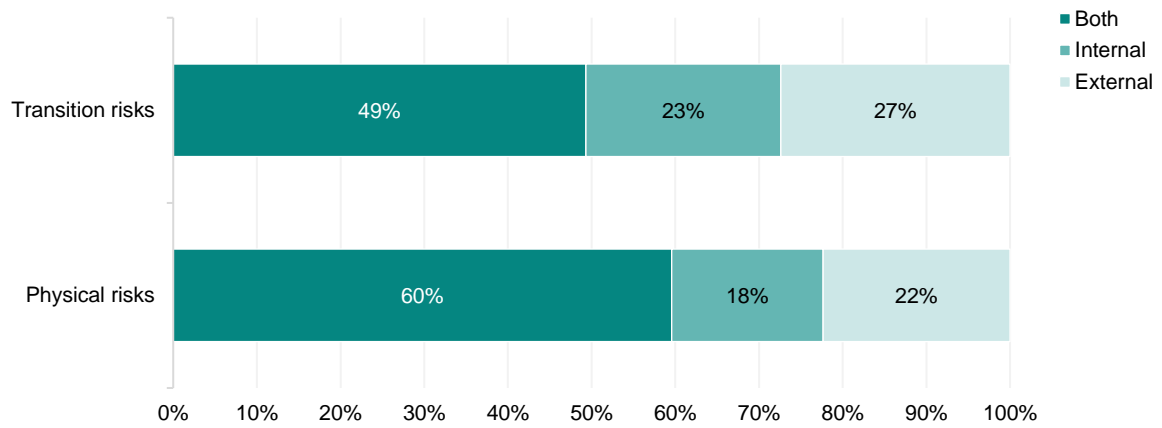
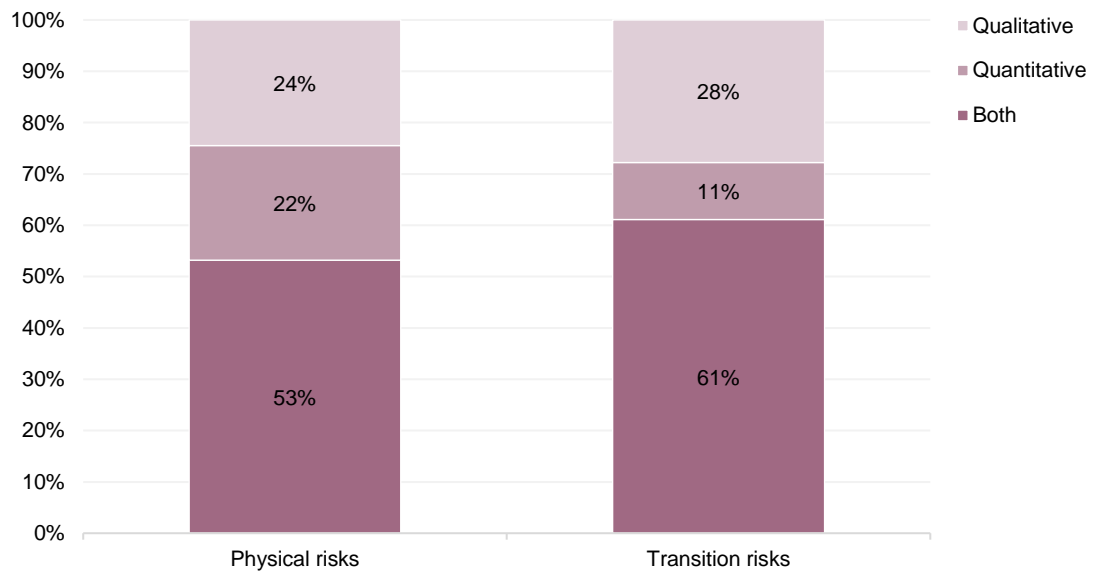


Figure 23: Nature of data sources



Financial soundness

The PA is responsible for monitoring and preserving the safety and soundness of financial institutions. As such, the PA needs to understand the potential impact that new and emerging risks could have on the financial soundness of institutions and the financial system in its entirety.

Financial institutions also have the responsibility of remaining financially sound to effectively execute their strategies and business plans while satisfying obligations to their customers and shareholders. Climate-related risks may have a significant impact on these objectives through physical and transition transmission channels.

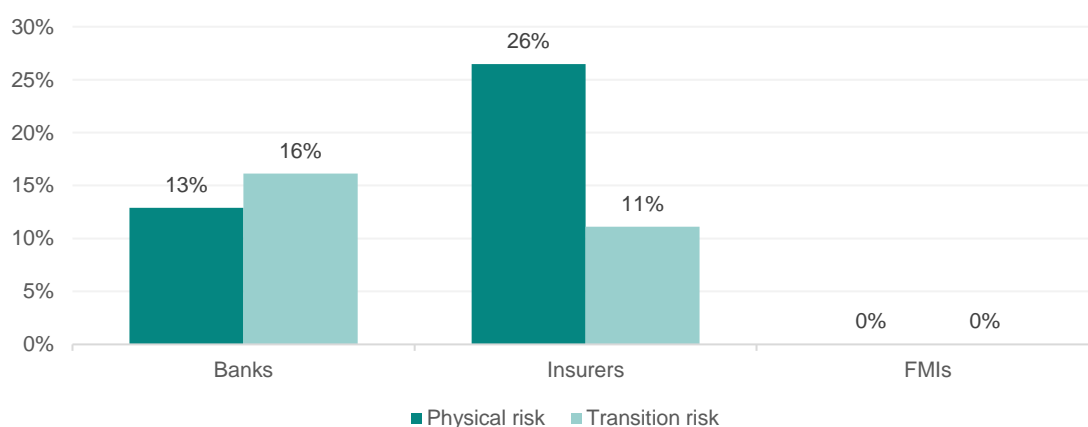
Physical risks such as extreme weather events and natural catastrophes may lead to the destruction of property, reallocation of communities and, ultimately, the loss of life. These unfortunate consequences may, in turn, affect financial institutions through insurance claims, impacts on investment portfolios, destruction of own- and third-party property and infrastructure, and changing market dynamics such as the un-insurability of property which will influence lending portfolios.

The global move to a net-zero carbon environment, one that is critical to the survival of our planet, will have a significant impact on the supply and demand of various products and services. An increased number of organisations are focusing on reducing their own carbon footprint and finding new ways to replace fossil-depending operations. The rate and speed at which this transition takes place could have a significant impact on certain sectors and industries, not only through investments but also through financial products and services.

It is therefore important for financial institutions to consider and quantify the potential impact from climate-related physical and transition risks to enhance strategic and operational decision-making.

In general, supervised institutions (24%) had quantified the impact of climate-related risks. Figure 25 shows the breakdown between financial institution type by climate-related risk type.

Figure 24: Quantification of climate-related risks



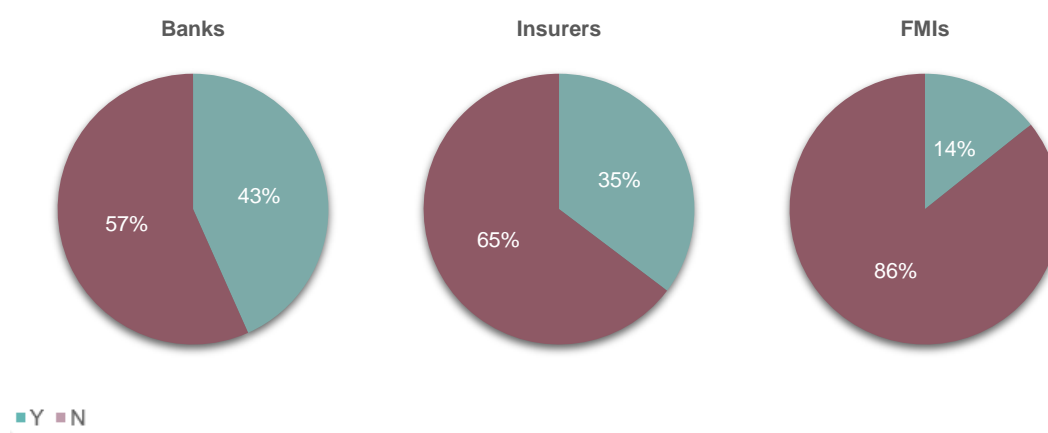
Although financial institutions responded with a 'No', most of these institutions indicated that they had been in the process of commencing with the quantifications.

Stress testing

Stress-testing analysis remains an important tool that financial institutions can use to assess potential impacts from climate-related risks on their business models and to develop climate-related strategic plans. Stress-testing frameworks should, ideally, adequately cover the financial impact of both physical and transitional risks to have a holistic view across different transmission channels.

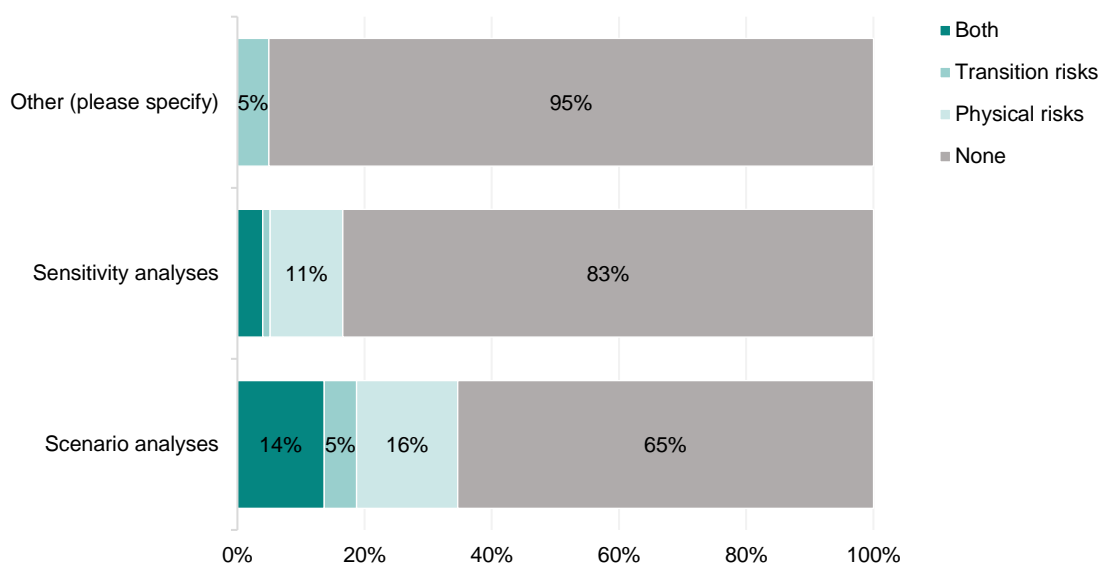
Respondents were asked to indicate the types of stress-testing analyses undertaken to assess the impact of climate-related risks (Figure 26). In general, respondents (36%) indicated that some type of stress-testing analysis was being performed, with most respondents leaning towards scenario analysis that considers both physical and transition risks. Many of these institutions have performed the analysis on a portfolio level, with some having done it for both portfolios and certain sectors.

Figure 25: Financial institutions that undertook climate-related stress testing



Most importantly, the survey shows that respondents (65%) currently have not undertaken any type of stress-testing analysis (Figure 27). The main reasons for not attempting this type of analysis were a lack of good quality and granular data, a lack of guidance on methodologies, limited market practices, and not having skilled resources specific to climate-related stress testing.

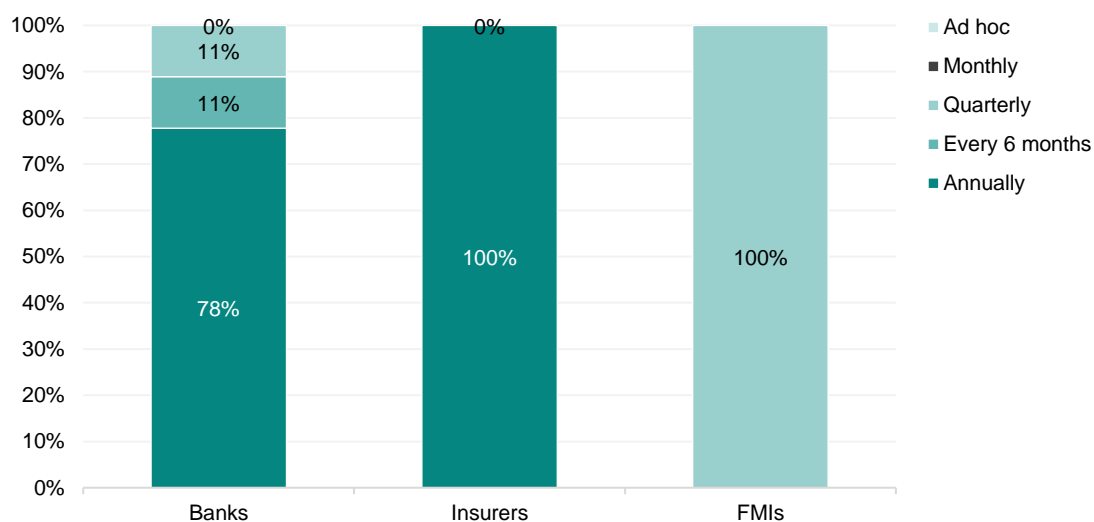
Figure 26: Type of climate-related stress testing undertaken



Climate-related scenarios allow organisations to consider how physical and transition risks impact the business over time. Banks are more likely to conduct a scenario analysis that considers both the impact of physical and transition risks. Insurers are more likely to assess the impact of physical risks in their stress testing in comparison to transitional risks.

Financial institutions that performed stress-testing analyses indicated that such stress tests were conducted on an annual basis, which was also the most common frequency indicated in this cohort. Some banks (8%) and all FMIs (100%) indicated that their analyses are performed on a quarterly basis, while other banks (31%) and insurers (25%) indicated that they perform these analyses only on an ad hoc basis (Figure 28).

Figure 27: Frequency of stress-testing analyses



The TCFD noted that, as firms mature in the application of climate-related stress-testing analysis, firms can improve disclosure through documentation of the process, including the key inputs and assumptions made. These results can feed the own risk and solvency assessment (ORSA) and internal capital adequacy assessment process (ICAAP) and assist management and the board with important strategic and operational decisions.

Of the firms that undertook stress-testing analyses, 84% indicated that results were documented, with most of the firms having had this exercise included in either their ORSA or ICAAP (Figure 29). Despite some institutions (16%) indicating that no documentation was in place, the majority provided a positive indication that plans were in place to document the results (Figure 30).

Figure 28: Are stress-testing results documented?

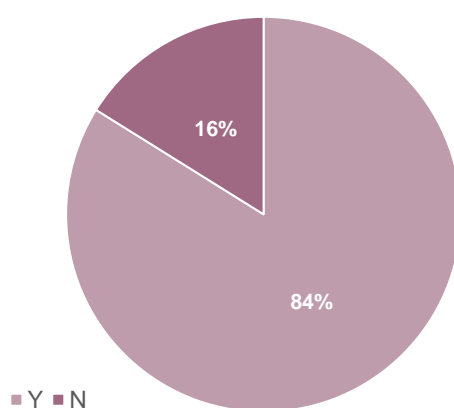
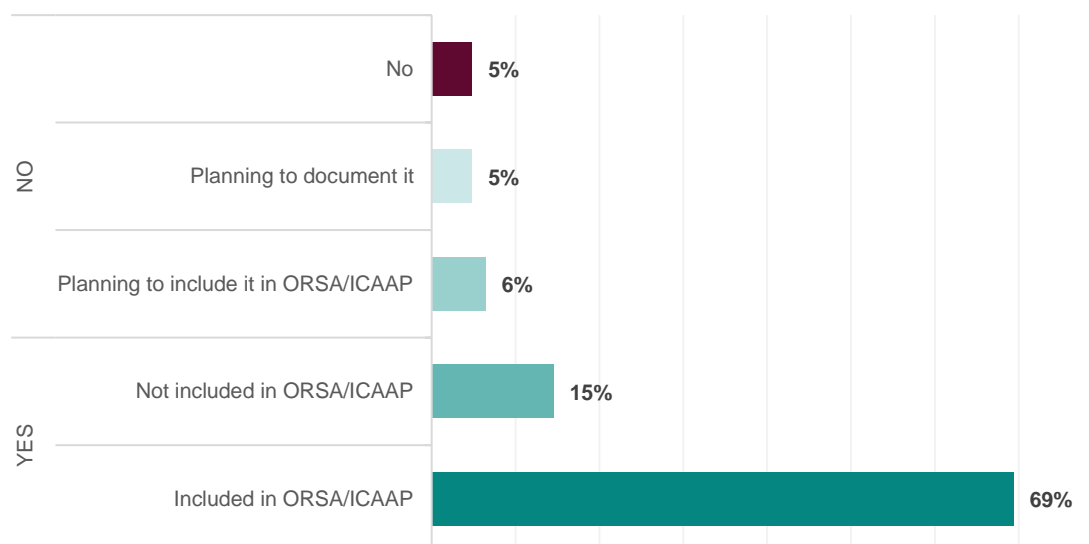
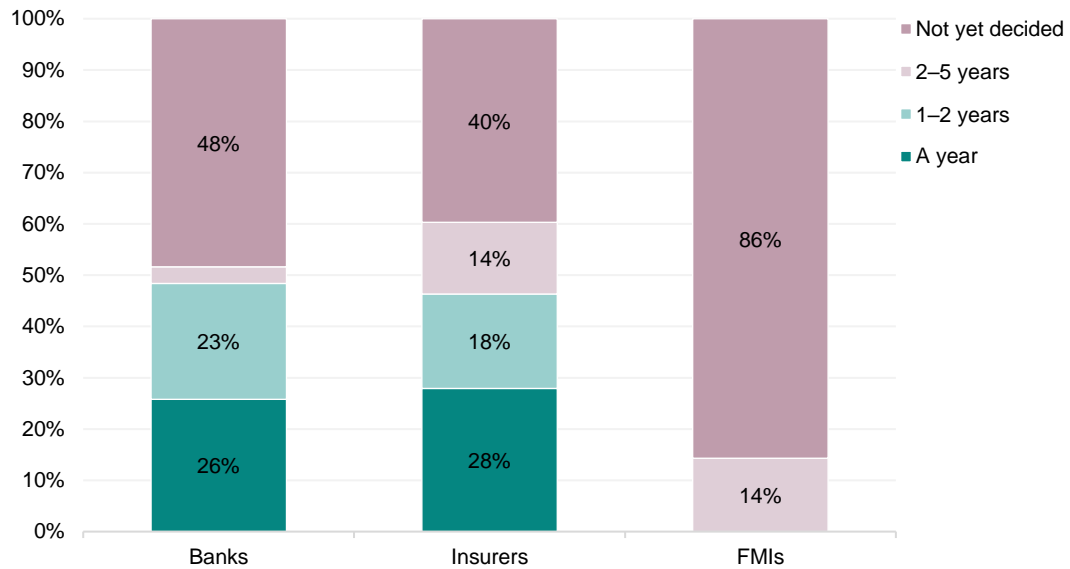


Figure 29: Documenting stress-testing results



Institutions have given an indication of the time frames in which they anticipate conducting a climate-related stress test (Figure 31). To this end, many institutions (44%) indicated that they had yet to decide on these time frames. Other institutions provided time frames for conducting some form of stress testing in the next year (26%), the next one to two years (18%) and the next two to five years (12%).

Figure 30: Time frame for undertaking a stress-testing analysis

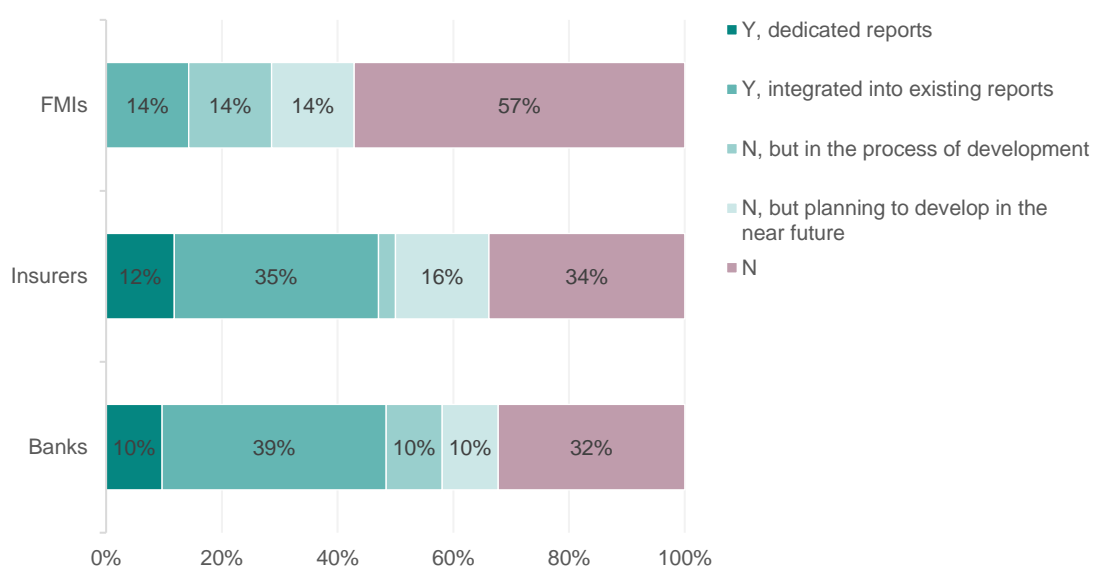


Reporting

A key component of good risk management practices is the reporting of relevant information that enables appropriate decision-making within the organisation at various levels. It assists in the monitoring of key risks within the organisation and can highlight areas of growth that may exist. Reporting ranges from internal dashboards and summary reports used as part of the day-to-day operations and includes inputs into management reports and board packs.

Banks, insurers and FMIs all indicated good progress in terms of reporting internally on climate related information (Figure 32). Some of the institutions, mostly the larger institutions, indicated that they already report on the information, either through a dedicated report or through an additional section within an existing report. Others indicated that they are busy developing internal reports or planning to do so in the near future. A third of insurers and banks indicated that they do not report on this information and that they are also not planning to do so in the near future.

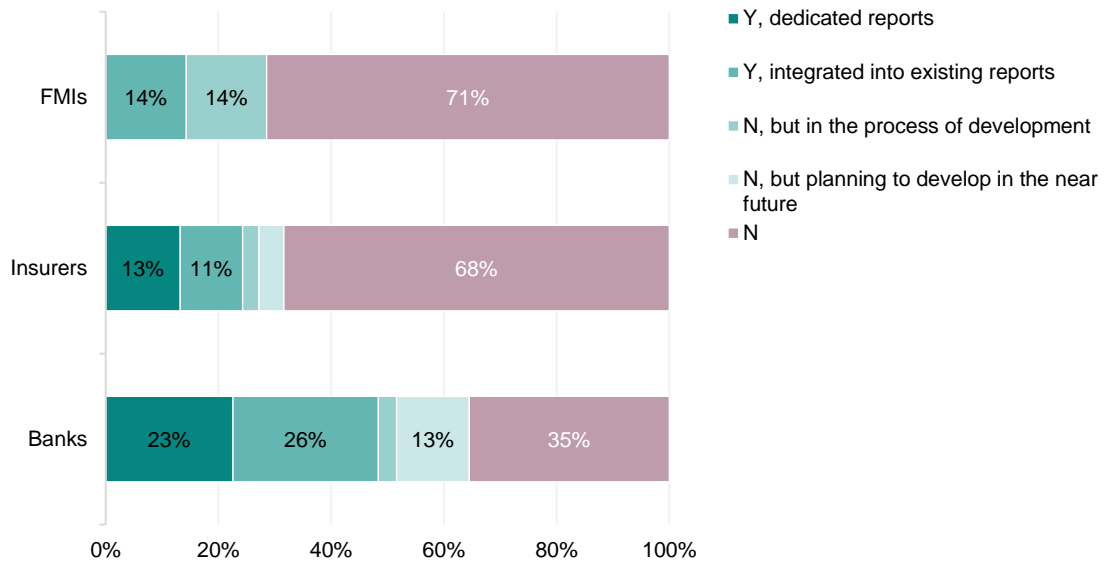
Figure 32: Private disclosure of climate-related information



Reporting is not only important for internal purposes but is key to effective stakeholder engagement, especially for shareholders and potential future customers. It creates transparency for stakeholders to understand the business model and strategy of the organisation as well as the potential risks it faces.

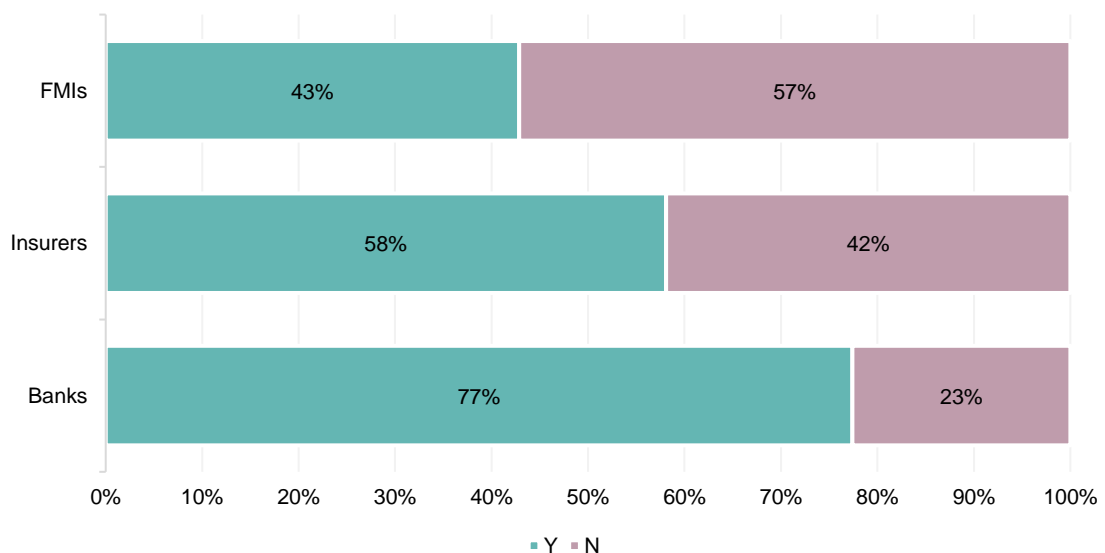
A large proportion of institutions indicated that climate-related information is not disclosed, of which some institutions (24%) indicated that they were considering disclosing this in the future (Figure 33).

Figure 31: Public disclosure of climate-related information



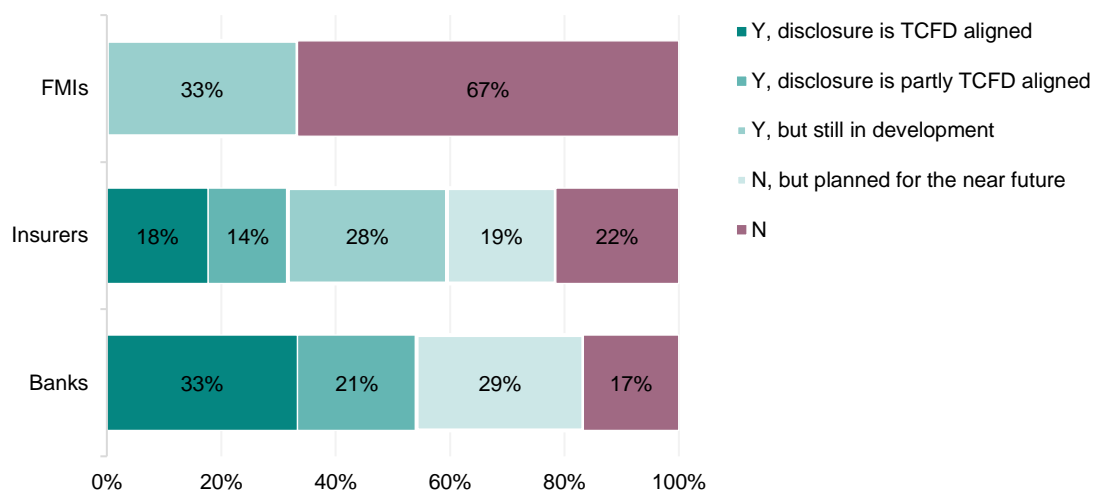
An important element of making disclosures meaningful to end users is by using standardised frameworks such as the TCFD (Figure 34). Awareness levels of the TCFD framework have increased significantly over the past couple of years, with the majority of institutions (60%) indicating that they are aware of the TCFD framework.

Figure 32: TCFD awareness



Institutions (92%) that are aware of the TCFD indicated that the TCFD provides an adequate framework for disclosing climate-related information (Figure 35). As such, an increased number of institutions mentioned that they are disclosing information based on the TCFD framework (36%). Some institutions (22%) indicated that they are busy developing their disclosure framework to be TCFD aligned, while others (21%) are planning to do so soon.

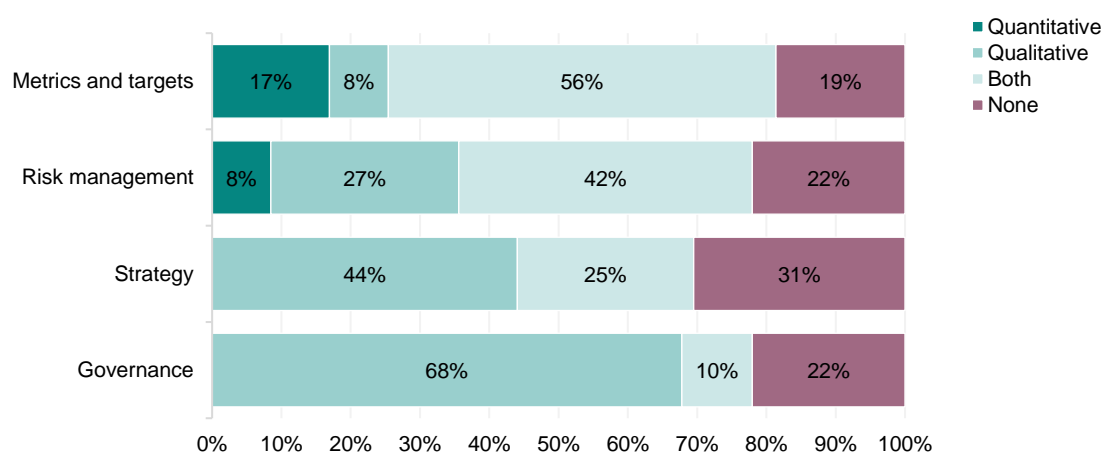
Figure 33: TCFD-aligned disclosures



In terms of all institutions that are aware of the TCFD, alignment with the TCFD is envisaged within the next two years (29%) for some institutions and within the next two to five years (32%) for other institutions. The PA has observed several board resolutions on the topic thus far which will put increased pressure on institutions to disclose climate-related information in the future.

The financial institutions that adopted or are planning to adopt the TCFD recommendations indicated that they mostly disclose qualitative information, especially on strategy and governance. However, more and more institutions are managing to disclose both qualitative and quantitative information across these categories. On metrics and targets as well as risk management, most institutions are disclosing both qualitative and quantitative information (Figure 36).

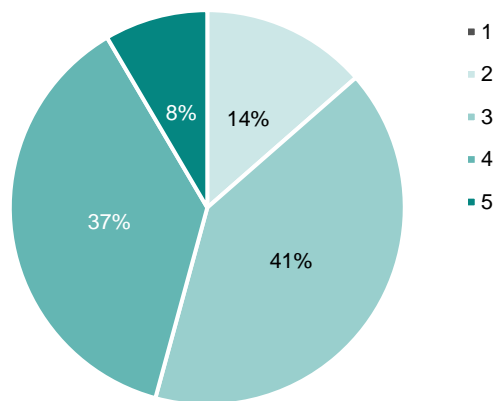
Figure 36: Nature of TCFD-aligned disclosures



Institutions (29%) that have adopted or are planning to adopt the TCFD recommendations specified that their disclosures contain/will contain forward-looking information, such as the results from stress-testing and scenario analysis.

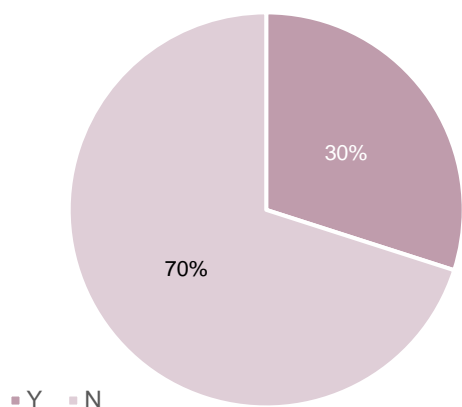
It seems as if those that have taken steps to implement the TCFD framework found it moderately difficult to do so (Figure 37). No institution indicated that they found this process to be simple. Climate-related information varies widely in terms of scope and detail, and the lack of data availability complicates the process further. Institutions (8%) highlighted that they found the process to be complicated.

Figure 37: Difficulty in TCFD implementation (1 = simple, 5 = complicated)



The TCFD framework is currently the most popular framework considered by most organisations and international bodies, but it is not the only framework available. Institutions (30%) indicated that they have considered disclosure frameworks other than the TCFD framework (Figure 38).

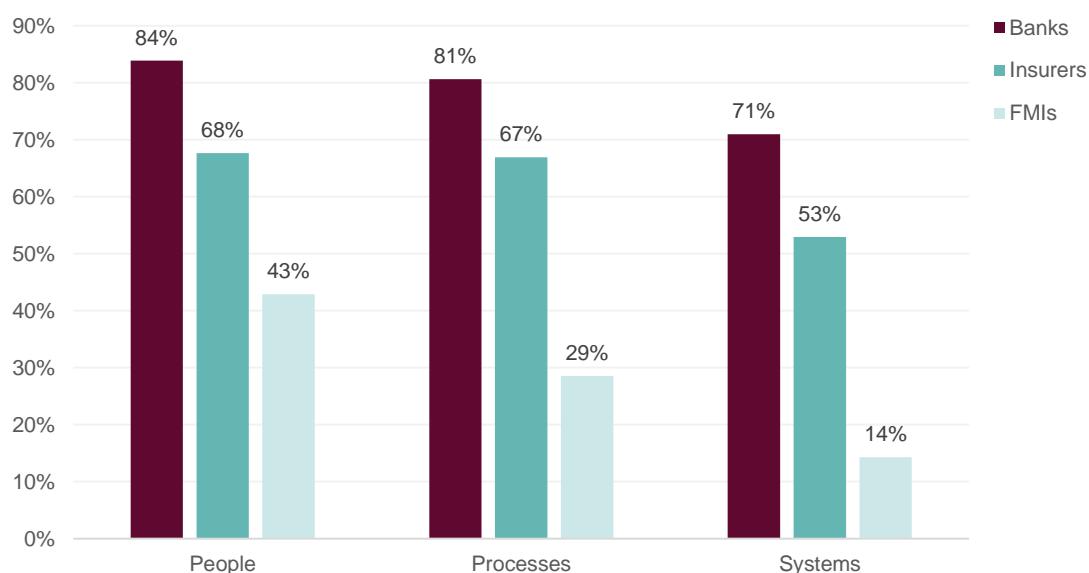
Figure 38: Consideration of disclosure frameworks other than TCFD



Operational initiatives

Climate change, like most other risks, may have a significant impact on the people, processes and systems of financial institutions. The extent of the impact will be driven by the sensitivity of specific business models to climate risk as well as the speed at which financial institutions respond to this risk. It can also be influenced by the speed at which individuals and organisations reduce their carbon footprint to contribute to a net-zero environment. To manage operational risk from a climate-related aspect effectively, an organisation needs to identify the potential transmission channels through which these risks may arise and analyse the likelihood and impact thereof. However, it all starts with an expectation of whether climate risk could influence an organisation's people, processes and systems. Figure 39 highlights this expectation for banks, insurers and FMIs.

Figure 39: Expectation on whether climate risk will impact people, processes and systems

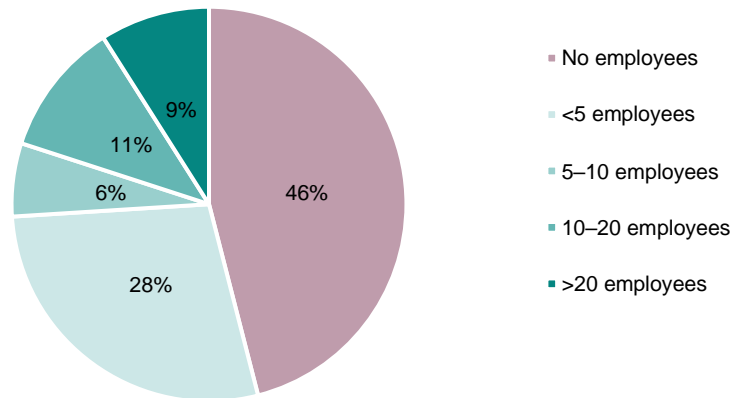


Outcomes from the survey show that most insurers and banks expect climate change to have an impact on all these operational areas. FMIs also expect the impact to cut across the different areas, but to a lesser extent. Furthermore, institutions (51%) expect an impact on their outsourcing/third-party vendor arrangements. These realisations are an important start and could support the need for targeted initiatives to further investigate and analyse the potential impact on the organisation.

As highlighted by most organisations above, the people of an organisation will potentially experience the biggest impact. Given the potential wide-spread implications of climate change and the complexity thereof, it is important to have internal/external resources dedicated to the topic. Several organisations have started to create awareness around climate risk among their own staff and have subsequently started upskilling staff and/or employing dedicated staff to drive climate-related initiatives. Most financial institutions (54%) currently have employees engaged on the topic (Figure 40). Banks seem to have a

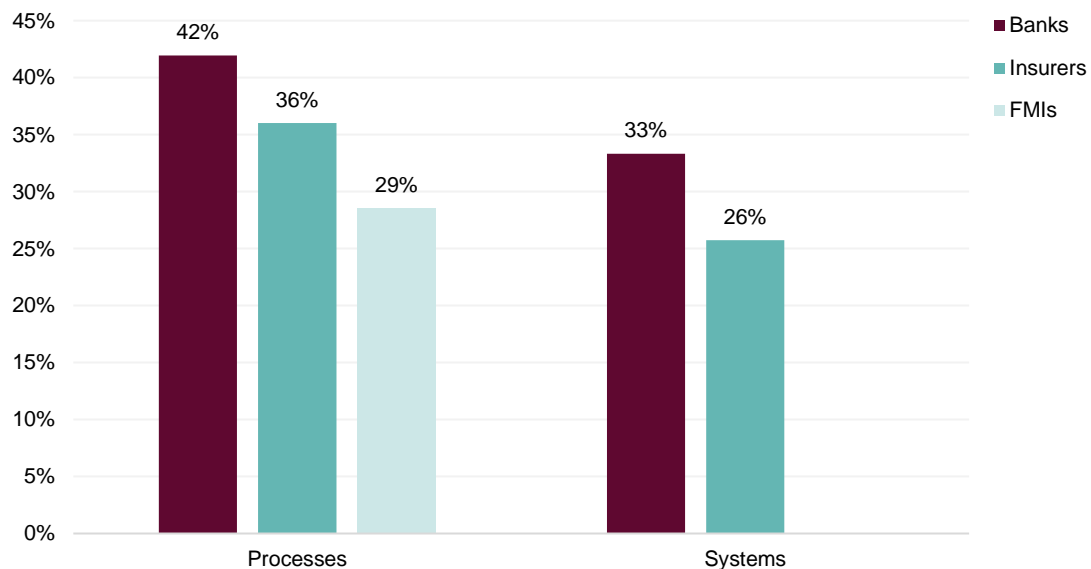
larger part of their workforce involved in climate-related initiatives compared to other financial institutions.

Figure 40: Percentage of financial institutions that have employees working on climate risk/initiatives



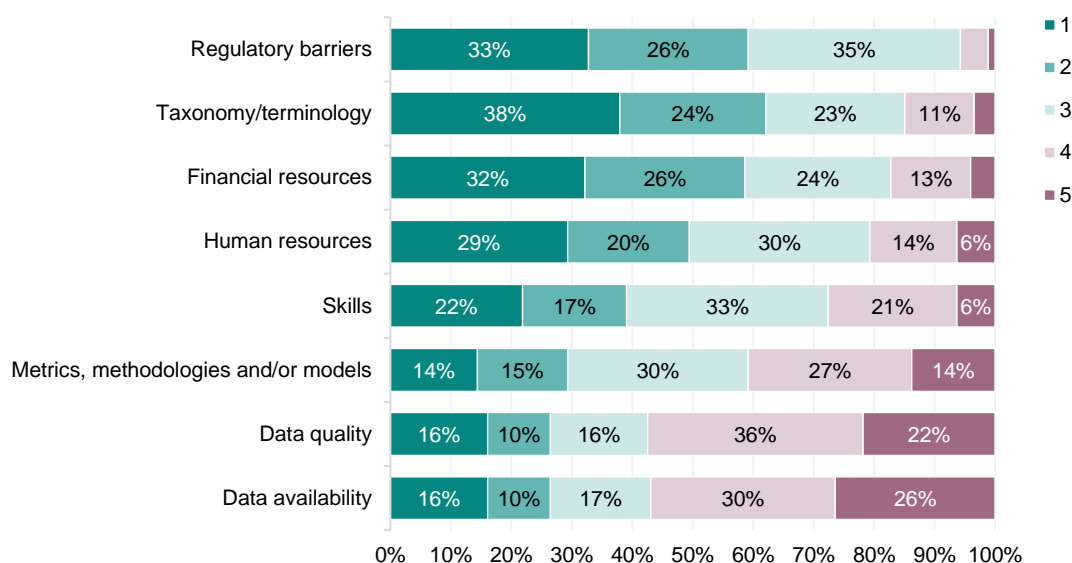
Many organisations have implemented processes and/or systems to coordinate climate-related activities across the organisation (Figure 41). Having these systems and processes in place will facilitate the organisations’ drive to further understand and monitor the impact of climate-related risks and to potentially highlight future opportunities.

Figure 41: Implementation of processes and systems to coordinate climate-related activities



Implementing climate-related initiatives poses many challenges for organisations – across people, processes and systems – and could affect the speed at which organisations are able to respond to these risks (Figure 42).

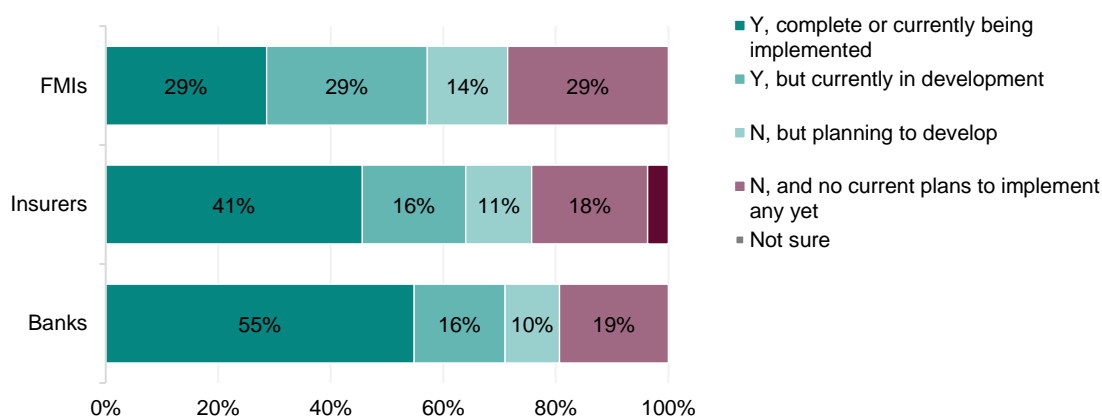
Figure 42: Challenges in implementing climate-related initiatives (1 = no challenge, 5 = extremely challenging)



Data availability and data quality were seen to be the most challenging areas that financial institutions grapple with in their climate-related work. This highlights the importance of having reporting initiatives that can influence/support the need to close these data gaps and to increase the quality of data over time. Many organisations indicated financial and human resources not to be a significant challenge, although it is still hard to find the right skills.

To keep the increase in average global temperatures as low as possible over the next 50 years, individuals and organisations have the responsibility to reduce their own carbon footprint and contribute to the global efforts to have a net-zero carbon environment by as early as 2050. It is encouraging to see how many financial institutions have implemented or are starting to implement initiatives to reduce their carbon footprint. In total, financial institutions (75%) are either planning, developing or implementing initiatives (Figure 43).

Figure 43: Implementation of initiatives to reduce carbon footprint



Conclusion

The 2021 Climate Risk Survey presented the PA with insightful views into the climate-related risk activities of financial institutions. The results have, on an aggregated basis, demonstrated that the institutions surveyed engage on the topic across key themes in the survey design. Notably, there was an appreciation among financial institutions of the material impact that climate risk may have on these institutions. This has filtered through to institutional strategy formulation, governance, risk management and reporting considerations.

The survey has demonstrated encouragingly that institutions surveyed have shown feasible commitments to 'net-zero' targets in addition to active consideration of carbon footprint impact and decarbonisation as a function of business strategy. These are important steps in the thought paradigms around climate risk and its impact. These thought paradigms in conjunction with active governance around climate risk, specifically at board and senior management level, will drive focused climate risk initiatives in these institutions. Coupled with climate risk opportunities, institutions will make headway in gearing a sustainable response to climate risk and its impact in the financial system.

The PA has established a dedicated climate risk-focused unit, namely the Prudential Authority Climate Think Tank (PACTT). PACTT has been established and mandated to promote, develop and coordinate the PA's regulatory and supervisory response to climate risks that impact entities regulated and supervised by the PA. PACTT has formulated a 'living roadmap' for climate risk that will inform supervisory activities for the foreseeable future. These activities will be communicated to the financial industry from time to time to facilitate a transparent and collaborative response.

The PA would like to thank financial institutions for their valuable contributions and information provided.

Abbreviations

board	board of directors
FMI	financial market infrastructure
FSR Act	Financial Sector Regulation Act 9 of 2017
ICAAP	internal capital adequacy assessment process
ORSA	own risk and solvency assessment
PA	Prudential Authority
PACTT	Prudential Authority Climate Think Tank
survey	Climate Risk Survey
TCFD	Task Force on Climate-related Financial Disclosures