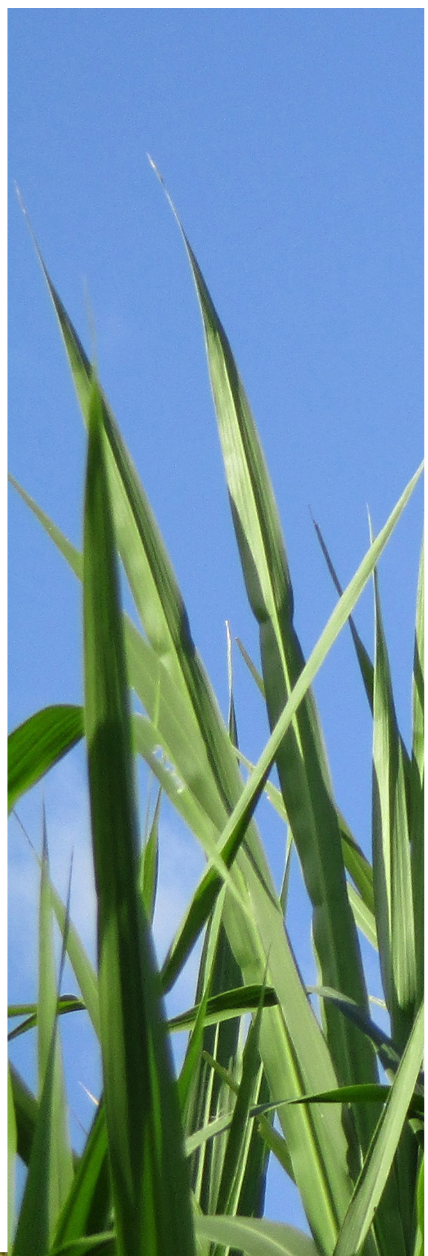
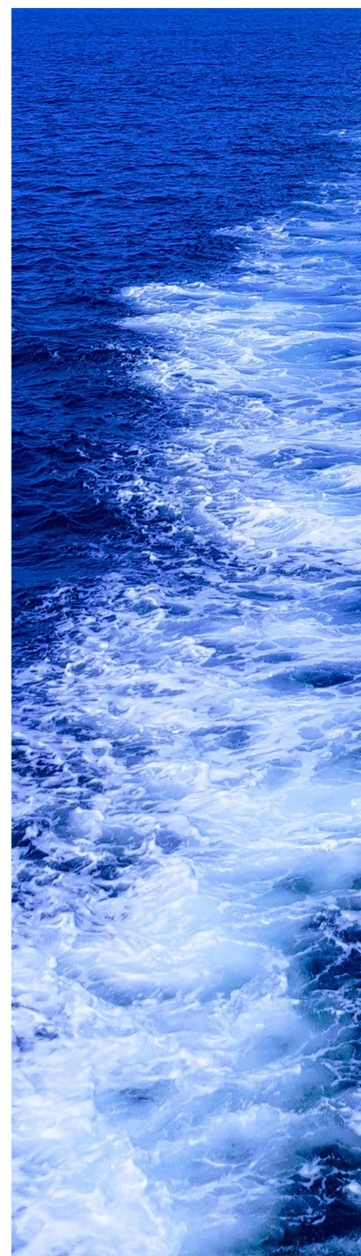
BMA
BERMUDA MONETARY AUTHORITY

2020 CLIMATE CHANGE SURVEY REPORT

March 2021



Bermuda Insurance Market Climate Change Survey Report

This report summarises the results of a climate change survey conducted by the Bermuda Monetary Authority (Authority or BMA), focusing on the Bermuda insurance industry (industry). The content of this report is a result of analysis carried out by the BMA on climate change data from a 2020 survey of insurance groups, commercial insurers (Class 4, Class 3B, Class E, Class D and select Class 3A and Class C insurers) and select Special Purpose Insurers (SPI). The report outlines statistics, findings, observed practices and challenges.

About the Authority

The Authority was established by statute in 1969. Its role has evolved over the years to meet the changing needs of Bermuda's financial services sector. Today it supervises, regulates and inspects financial institutions operating in the jurisdiction. It also issues Bermuda's national currency, manages exchange control transactions, assists other authorities with the detection and prevention of financial crime, and advises Government on banking and other financial and monetary matters.

The Authority develops risk-based financial regulations that apply to the supervision of Bermuda's banks, trust companies, investment businesses, investment funds, fund administrators, money service businesses, corporate service providers, insurance companies, digital asset businesses, and digital asset issuances. It also regulates the Bermuda Stock Exchange and the Credit Union.

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This publication is available on the BMA website www.bma.bm.

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Acronyms

Authority or BMA	Bermuda Monetary Authority
COVID-19	Coronavirus (SARS-CoV-2) Pandemic
Companies	Life and P&C Insurers and Reinsurers
ESG	Environmental, Social and Corporate Governance
Industry	Bermuda Insurance Industry
Life	Life Insurers and Reinsurers
Nat cat	Natural Catastrophes
ORSA	Own Risk and Solvency Assessment or Solvency Self-Assessment
P&C	Property and Casualty Insurers and Reinsurers
SIF	Sustainable Insurance Forum
TCFD	Financial Stability Board Task Force on Climate-related Financial Disclosures
UN	United Nations
UNEP FI	United Nations Environment Programme Finance Initiative

Definitions[1]

Physical risks – Risks arising from climate trends and weather-related events such as floods and storms. They may arise directly from weather events such as property damage or indirectly through subsequent events such as disruption of global supply chains or resource scarcity.

Transition risks – Financial risks that could arise for insurance firms from the transition to a low-carbon economy. Transition risks may be motivated by policy changes, market dynamics, technological innovation or reputational factors. For insurance firms, this risk factor is mainly about the potential re-pricing of carbon-intensive financial assets, and the speed at which any such re-pricing might occur. Transition factors may also impact the underwriting of certain lines of business, types of insurance products and services.

Liability risks – On one side, these include direct claims against insurers for failing to manage climate risks, e.g. management and boards of insurers not fully considering or responding to climate change impacts, or appropriately disclosing current and future risks. On the other side, insurers might have the risk of climate-related claims under liability policies, such as Directors and Officers (D&O), Professional Indemnity (PI), and third-party environmental liability policies.

[1] Definitions modified from those found on pages 7 and 8 of the following report: SIF application paper on the supervision of climate related risks in the insurance sector.

1. Executive Summary

In the last few years, managing the impact of climate change has become a key strategic priority for the insurance[2] industry. Simultaneously, approaches on how to incorporate climate risk into regulatory and supervisory processes have also started to evolve. As such, the BMA has made it a goal to further integrate sustainability into our regulatory framework, and as a member of the Sustainable Insurance Forum[3] (SIF), we remain committed to helping efforts that drive the topic of climate risk in our jurisdiction as we develop our framework further. As a first step, the BMA requested Bermuda insurers' participation in a climate change survey. The aim of the survey was to provide the Authority with information concerning the impact of climate change on the Bermuda insurance industry (industry) and the steps that companies are taking to respond to climate change risks and opportunities. The survey was rolled out to insurance groups[4], commercial insurers and select SPIs. The survey covered the following main areas, which the Authority believes should be sufficient to provide insight concerning the intersection of climate change and Bermuda insurers:

- Overall Understanding
- Strategy and Governance
- Underwriting
- Investments
- Stress/Scenario Tests
- Disclosures
- Pandemics and Climate Change

The Authority received 170 survey responses, including submissions from more than 80% of registered large commercial insurers and groups in the Life and Property and Casualty (P&C) sectors. The results from groups, which are mainly P&C groups, were not significantly different from commercial insurer responses and will not be discussed separately in this report.

Key takeaways: The topic of climate change is a high priority for a broad range of insurance companies, no longer being considered by only a niche sector in the market. P&C companies seem more advanced at considering climate-related risks in their risk management practices, given their historical exposure to climate-related risks in lines of business such as property catastrophe. Climate change impact initiatives of Life companies appear more concentrated in the ambit of investment policy.

Generally, the long-term risk stemming from climate change is starting to find its way into companies' strategy and operations, mainly as a result of higher awareness in board rooms and top management; evolving risk management practices; and recent natural catastrophe (nat cat) events. Amongst the positive aspects identified are 1) higher risk awareness and increasing efforts in identifying, measuring, managing and reducing the risk and 2) a broadened perspective taking advantage of opportunities and, in some cases, an approach of stewardship with respect to climate change.

Whilst companies in general acknowledge that some lines of business, or some investments, might come under pressure due to the transition to low-carbon economies, they also see new business opportunities

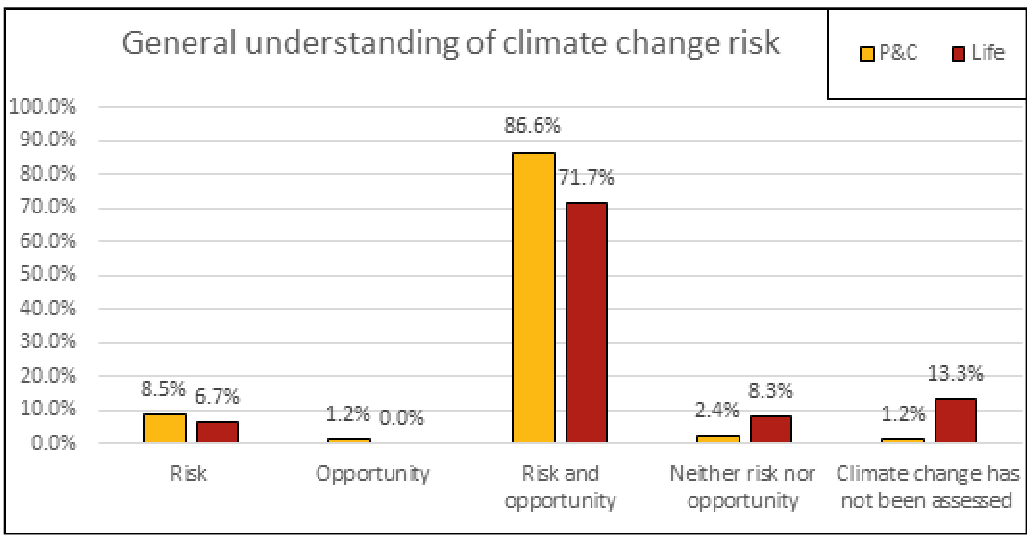
[2] For the purposes of this report, where reference is made to insurance, this should be taken to mean both insurance and reinsurance unless separately disclosed otherwise.
[3] To learn more about the SIF, visit their website at https://www.sustainableinsuranceforum.org/.
[4] Groups to which the BMA is the group supervisor

and chances to position themselves as leaders in sustainability, thereby leveraging on a good reputation in a changing business environment. The main challenges identified were:

1. Climate change as a long-term risk versus mid to short-term business planning horizons, particularly for P&C insurers
2. Building up knowledge and skillsets in light of evolving methods and methodologies and a lack of standardisation (i.e. disclosure, stress tests investments)
3. Uncertainty around the speed and realisation path of transition phases to low-carbon economies and their impact on business and planning
4. The long-term impact on underwriting risk in the Life insurance sector

Insurers confirmed that they learned lessons from the COVID-19 pandemic, which they will use when dealing with climate change risks in areas such as policy wordings, understanding interdependencies of global systems and the importance of underwriting portfolio diversification.

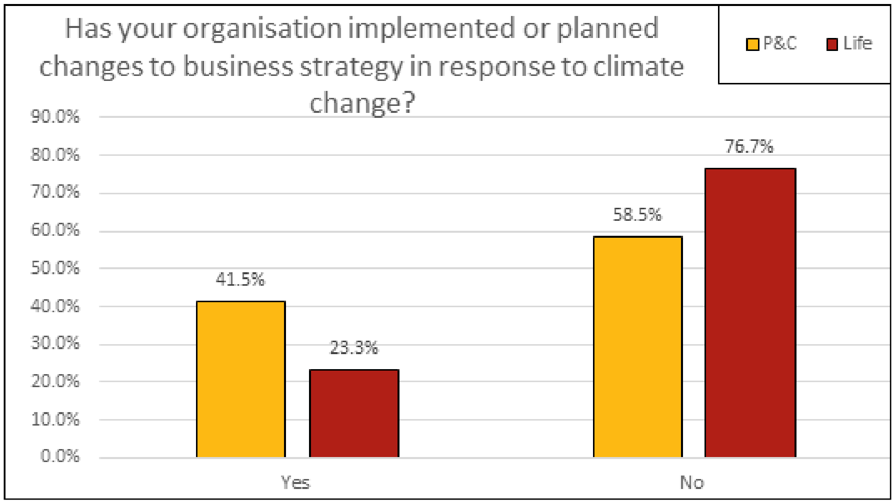
2. General Understanding of Climate Change Risk, Impact on Strategy and Governance



Source: BMA

The Authority found that a majority of commercial insurers view climate change as both a risk and an opportunity. Opportunities are mainly seen in the P&C sector particularly for early movers, largely through greening of the economy (i.e. moving to low-carbon economies) and offering extended and new types of coverage to renewable sectors and clean energy projects. Transition risks are considered the main risks. Examples identified include potential for reduced asset values for carbon intensive assets, particularly for Life companies and for P&C insurers, as well as threats to the viability of certain lines of business (e.g., when governments implement policies that support transitioning to low-carbon economies). Physical risk in the form of the frequency and severity of natural catastrophes is seen as a gradually increasing risk mainly for P&C companies. Insurers remain conscious of liability risk either emanating from underwriting activities or other organisational activities. However, many view it as less material at this point. Most Life companies noted that climate change is not viewed as having a predictable connection at this stage with material changes in mortality and longevity risks.

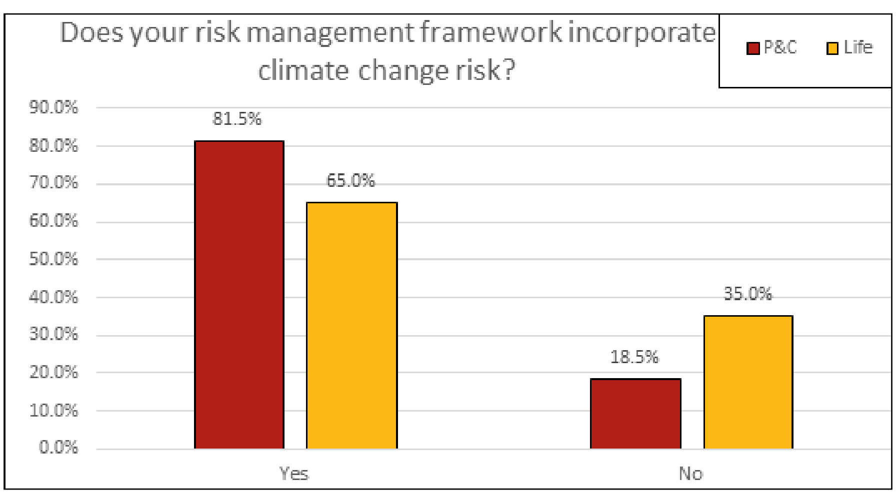
Insurers identified challenges associated with their efforts to implement different responses to climate change risks. Such challenges included: 1) potential increase in regulatory compliance burdens, 2) investor-related litigation and liability risks as a consequence of accelerated disclosures, and 3) challenges associated with predicting, over a long-term horizon, the pace and magnitude of the legal, technological, policy and market actions, amongst others, required to move societies to low-carbon economies. The last challenge was noted as the biggest challenge by most respondents. In addition, there was a general call for the need for collective thinking between governments, regulatory bodies and insurers.



Source: BMA

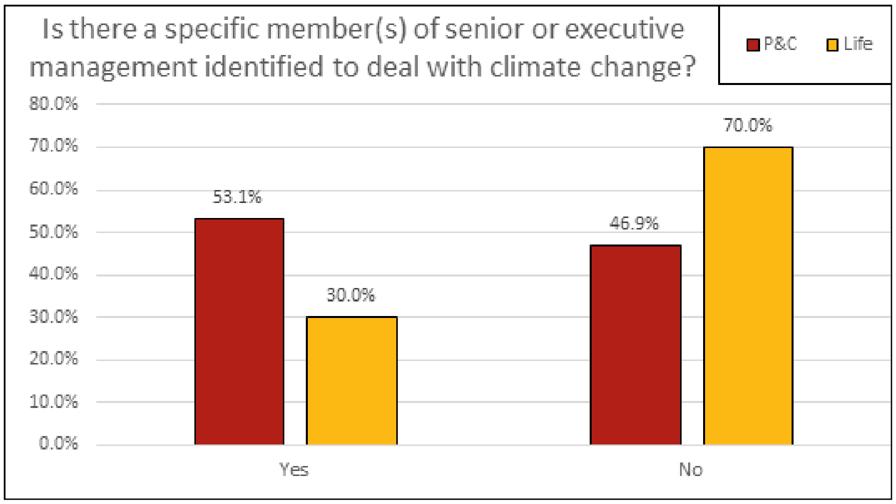
Climate change has so far not resulted in a significant change of business strategy for the majority of insurers. More P&C insurers, however, have explicitly placed the responsibility for ESG/climate change at an executive/senior management level, than Life insurers. For those companies incorporating climate change into their planning, a shifting market outlook was identified as one of the key aspects driving them to look into climate change as part of their business strategy.

A small number of P&C insurers indicated that they have made bold strategic decisions to exit certain business lines which are prone to climate risk (e.g., physical risk impacts on property lines of business, evidenced by increased wildfires, storms and flooding). Some insurers in both the P&C and Life sector noted that they have implemented an ESG strategy on their investment portfolios (e.g., by not reinvesting in thermal coal mining or power generation using coal). Beyond direct physical financial risks, a meaningful number of insurers both in the P&C and Life sectors mentioned significant reputational risk amongst their customers/ investors, etc., as a key driver for their actions concerning climate change.



Source: BMA

A significant number of insurers reported having integrated climate change in their risk management and Own Risk and Solvency Assessments (ORSA). A closer look at the information provided shows that integration remains a work in progress and is biased towards certain risks (e.g., nat cat risk where models are adjusted to consider climate change risk assumptions or are monitored as part of emerging risk registers). Integration was observed as not yet very comprehensive (i.e. does not include detailed and overarching assessments about the impact of transition/physical/liability risks on the insurer). The topic “climate change” is mainly owned by the chief risk officer supported by the existing governance/committee structures. However, an increasing number of insurers have also noted that they have appointed or designated a chief sustainability officer or that there are responsibilities assigned at a board level, which goes beyond merely understanding climate change as a “risk” only.

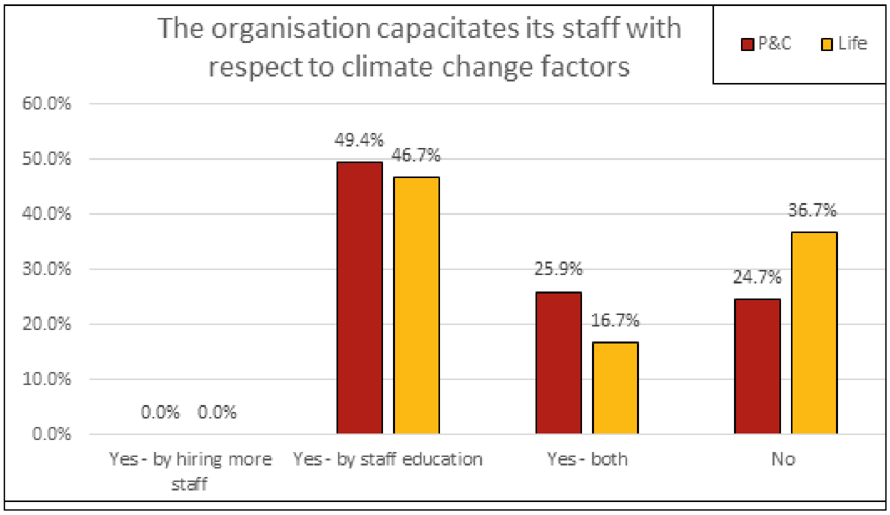


Source: BMA

As part of increasing their knowledge about different aspects of climate change and making contributions to this emerging area, a notable number of Bermuda insurers reported actively participating in various international platforms, or initiatives related to climate change, either through affiliation or membership amongst other means. Some of these platforms and initiatives include: the United Nations Environment Programme Finance Initiative (UNEP FI) Net-Zero Asset Owner Alliance; the ClimateWise[5] initiative; UNEP FI Principles for Sustainable Insurance; and the Task Force on Climate-related Financial Disclosures (TCFD[6]). The Association of Bermuda Insurers and Reinsurers (ABIR) is also a member of organisations such as the Insurance Development Forum (IDF), an insurance industry initiative with a focus on the role of insurance in building up global resilience and addressing protection gaps in the context of catastrophic weather and climate-related hazards.

[5] For more information on the ClimateWise initiative, visit https://www.cisl.cam.ac.uk/business-action/sustainable-finance/climatewise.

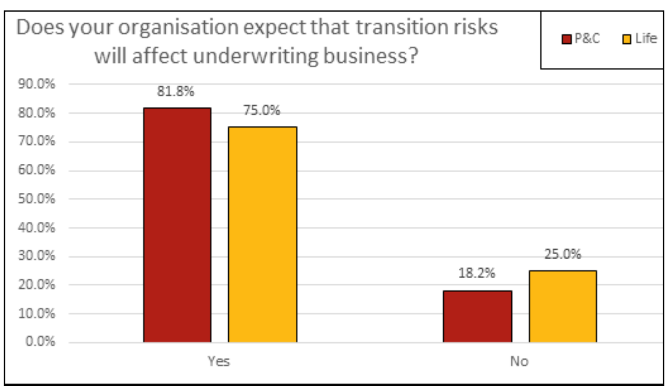
[6] The TCFD website is located at https://www.fsb-tcfd.org/.

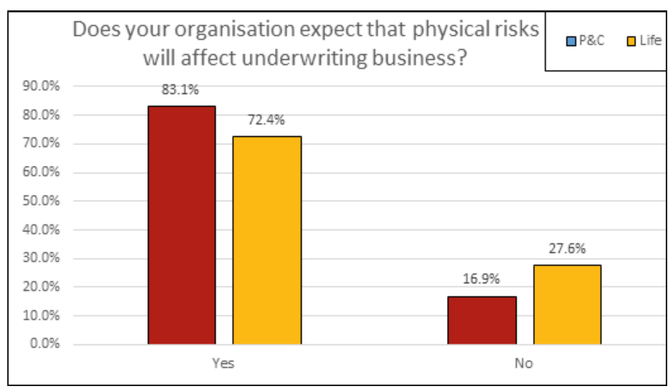


Source: BMA

The majority of insurers surveyed confirmed they are in the process of capacitating staff via education initiatives. Only a minority planned to hire additional personnel for the area of climate change alongside staff education initiatives. Some insurers have in-house scientists and research collaborations with universities, which they leverage to integrate an up-to-date approach with respect to climate change in their operations.

3. Underwriting and Product Development



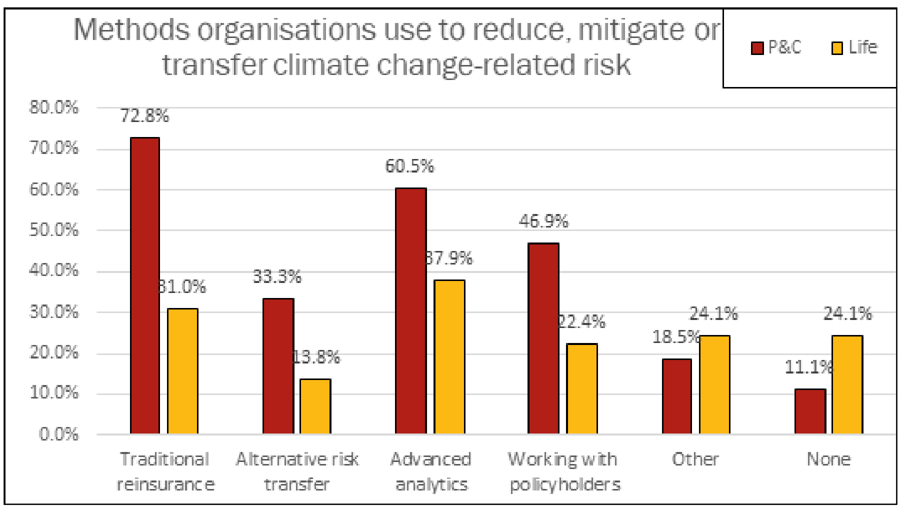


Source: BMA

With respect to underwriting and insurance products in general, the responses of the insurers paint a clear picture. The majority expect that transitioning to a low-carbon economy, physical risk events and liability risk will impact the underwriting process and performance, as well as the type of products being offered. Whilst it is clearly more prevalent for P&C insurers, Life insurers also expect a certain impact, which they consider less predictable and/or less material, for both physical and transition risk. Some P&C insurers which have made significant progress pertaining to underwriting and climate change have adopted strategies to gradually exit lines of business viewed as contributing to climate change (e.g., issuing of fossil fuel statements, defining corporate energy policies and coming up with specific positions on coal). Efforts of Life insurers are mainly focused on the asset side, with only a few insurers confirming they have explicitly incorporated the interaction between temperature and mortality and/or morbidity rates into their underwriting models.

Regulatory and legislative requirements, technological advancements, consumer preferences and investor sentiments were identified as having the biggest potential for material impact in the area of transition risk. To provide adequate time to react to climate risk, insurers generally considered a gradual transition to be beneficial (e.g., a P&C insurer can decide whether to remain exposed to climate risk as most products are renewable annually). Significant opportunities could arise in the form of new exposures/insurance products in the renewable energy sector whilst exiting high carbon-intensive lines/products and working with governments to improve resilience (e.g., utilising insurer experiences, data and models to enhance building codes). In relation to underwriting, transition risk was noted as a difficult item to incorporate as it impacts the core of the industry and both the timing and the impact of the transition is not yet clear. Only a few of the companies surveyed (on the P&C side) have started to reduce that risk through a gradual reduction of exposures with clear exit targets.

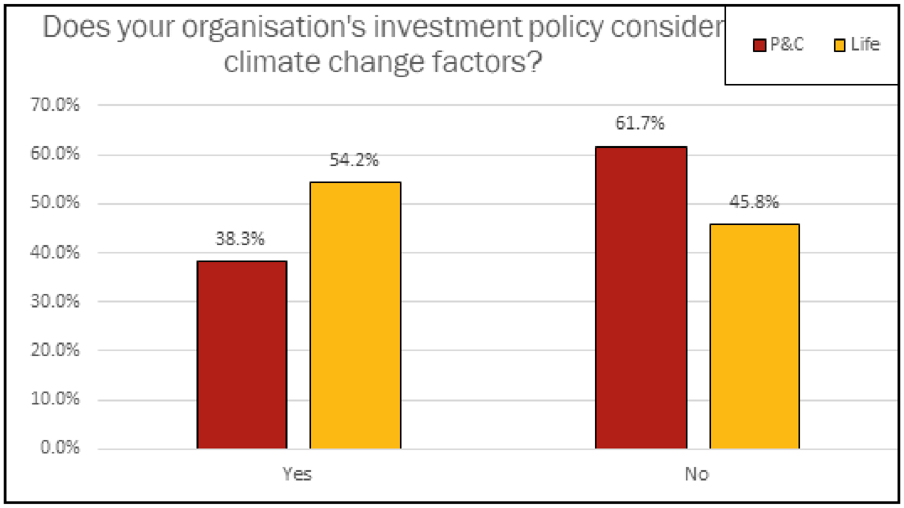
As the Bermuda insurance market is a world leader in nat cat insurance (P&C), most insurers have a very advanced view on physical risk and expect a trend towards higher volatility of underwriting results, a continuously growing claims burden and subsequently increased prices in the medium to long-term. Such a scenario might initially increase demand in insurance products. However, in the long-term, the result might be the widening of the protection gap should insurance become expensive. Insurers see strategic exposure management as key (limits, exclusions, diversification, line reductions, risk appetite, etc.) In addition, the further development and adjustment of models and timely reflections in pricing were also key areas identified.



Source: BMA

In terms of current risk management techniques, traditional reinsurance remains the number one choice for risk mitigation by P&C insurers, followed by advanced analytics, which is the top method used by Life companies. Other options used include alternative risk transfer, working with policyholders (i.e. mitigation and climate change adaptation) and other methods. A notable number of insurers also reported that they had not completed a detailed risk assessment concerning climate change, which will allow them to determine how to holistically manage this risk with tailored reduction, mitigation and transfer strategies.

4. Investments



Source: BMA

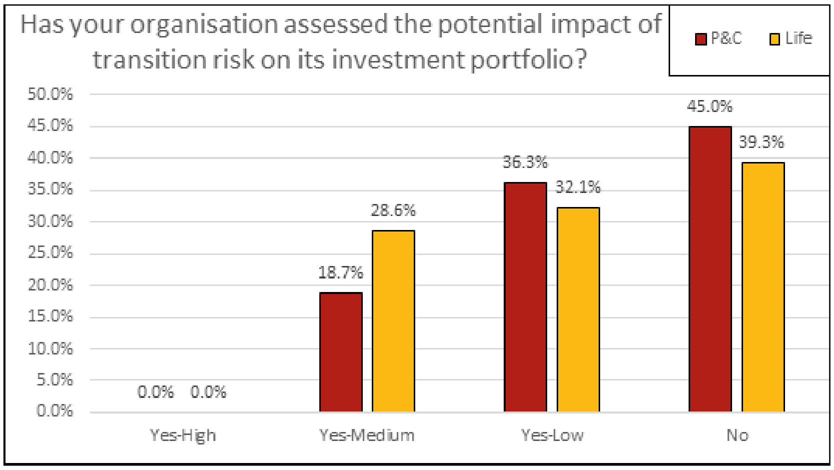
The Authority noted the majority of P&C insurers do not explicitly consider climate change in their investment policies, whilst the majority of Life companies do consider them. Of the insurers that have integrated climate change risks in their investment policies, many consider the risk in a generic way and are not describing resulting actions. The following main approaches are being used:

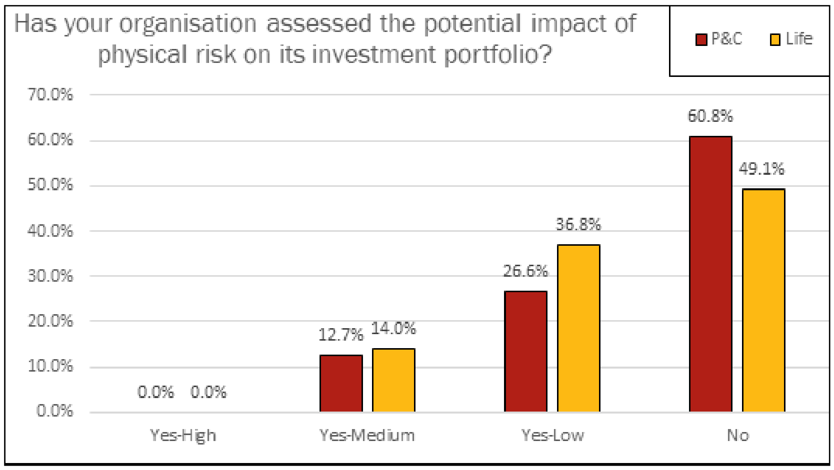
1. ESG screening of investments and consideration of ESG factors in investment selection
2. Identification of high-carbon investments and embedding of climate change in insurers' risk management frameworks
3. Discussions with and steering of (external) asset managers

Some companies have made concrete decisions to avoid and reduce investments into companies with activities considered to be contributing to climate change including establishing limits (e.g., limits on the level of coal-related investments). A smaller number of advanced insurers have already formulated a stewardship approach and have incorporated climate change in their investment policies in accordance with certain international agreements, such as the Paris Pledge for Action and the UN Principles for Responsible Investment.

There was a general consensus amongst insurers – with somewhat more concerns from Life insurers due to the long-term nature of their assets – that significant uncertainties remain about if and when climate risk will be adequately reflected in the valuation of investments. Insurers identified a number of challenges that they viewed as potentially having a negative impact on the value of their investments, including uncertainty around the extent and direction of government involvement and lack of an effective mechanism to quantify the impact of climate change on asset valuation.

The impact of transition and physical risks on investments is an area the majority of insurers have not yet fully assessed. Out of a few insurers who have performed an assessment of the type of investment holdings potentially exposed to climate change risks, the majority came to the conclusion that the impact will be on the low to medium-end. Assessments have been mainly qualitative at this stage. Some of the more advanced companies employed third-party assessors to determine the carbon footprint associated with the types of investments in their portfolio and performed scenario analysis linked to climate change in some instances to calculate the impact of ESG risks on the portfolio.

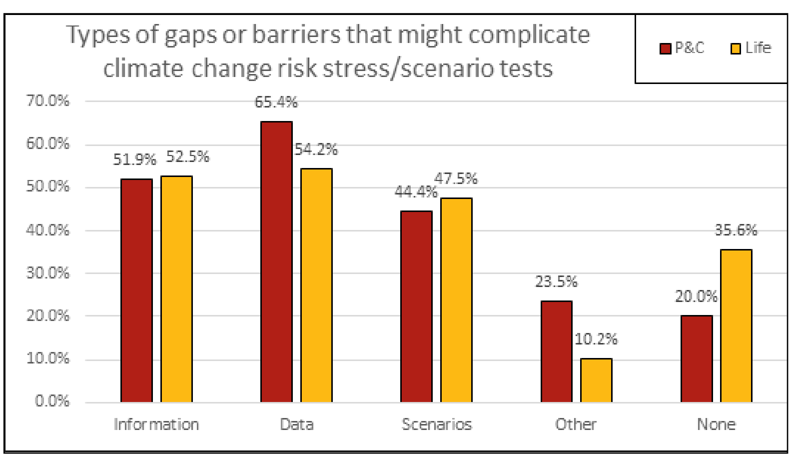




Source: BMA

5. Stress Testing

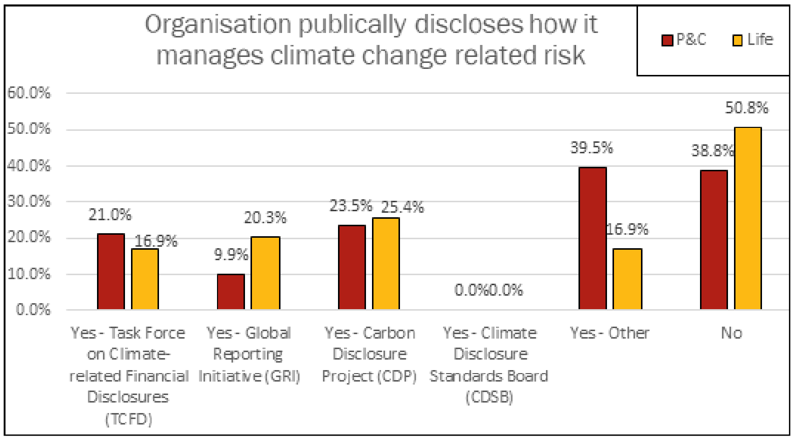
A large number of the insurers surveyed noted they have performed some sort of climate change risk stress test. To simulate climate change trends and their impact on their underwriting portfolio, a majority of these insurer stress tests use traditional nat cat models, complemented by in-house models for some perils. It is clear that reflecting long-term climate change in the current models is still a work in progress. Some insurers have developed, or are developing, comprehensive stress tests, including stresses on the investment component. This is generally driven by sustainability being identified as a core strategic priority and is partly driven by current and expected future regulatory requirements.



Source: BMA

The majority of insurers view the main barriers to performing stress tests as insufficient data availability, granularity and a lack of comprehensive and applicable information, including skill sets and knowledge. A further obstacle identified is the scenario development of specific climate risks, and the translation of climate scenarios into financial impacts (including long-term versus short-term).

6. Disclosure



Source: BMA

A majority of the insurers publish either no details about climate change risk or do it more generally in their annual reports or Form 10-K submissions to the United States of America Securities and Exchange Commission. The main reason cited for not disclosing climate change risk is that insurers are waiting for regulatory guidance and the determination of industry standards prior to making such disclosures. However, a meaningful number of companies publish comprehensive sustainability reports, with some being produced according to, or largely aligned with, climate reporting standards, namely the TCFD or the ClimateWise initiatives. Companies with a strong presence in Europe, Asia and Australia tend to provide a greater level of detail and seem further developed regarding climate risk reporting. Many insurers highlighted that a lack of a common industry reporting standards and rapidly changing practices complicated adoption and implementation. However, standardisation and increasing regulatory actions are expected.

7. COVID-19 Pandemic and Climate Change

The Authority noted that a majority of insurers, both Life and P&C, have learned lessons from the COVID-19 pandemic, which required insurers to monitor their portfolio on an ongoing basis and at a more granular level. Many of these lessons would be beneficial to addressing risks associated with climate change. Similar to COVID-19, climate change has the potential to impact global economic, social, regulatory and technological conditions. The following themes were most commonly identified:

- Importance of discipline regarding clear contract wording with explicit limitations of cover and exclusionary language, so as to avoid claims not envisioned at the underwriting stage and potential liability/legal action from clients
- The need for insurers to limit exposure concentration in particular industries due to a potentially fundamental disruption to specific industries (e.g., tourism in the case of COVID-19)
- Potential for losses from lines of business with secondary exposure (i.e. economically sensitive lines of business and relevant liability classes) to clash with/compound the losses from the directly responding policies

- Reconsideration of carbon-intensive business travel
- Understanding and actively managing exposure on a timely, forward-looking basis including scenarios in relation to liability and transition
- Advanced planning and rapid responses are critical to risk mitigation – for those insurers that can adapt quickly, disruptions can create strategic opportunities
- As part of their risk assessments, insurers will benefit from understanding the interdependency of global systems

Conclusion and Next Steps

The Authority has both short to medium-term targets and long-term targets regarding climate change risks. The basis for such targets include the Authority's own sustainability goal, as stated in our 2021 Business Plan, together with our Corporate Strategic Plan for the next three to five years, and a coordinated approach to the supervision of these risks provided through international platforms such as the SIF. This survey is the starting point. Some of the BMA's other short to medium-term goals include:

- Holding an exposure assessment/vulnerability analysis trial run pertaining to climate change risks
- Increasing engagement with insurers to clarify certain aspects arising out of the survey and identifying good practices
- Continuing to participate in SIF, actively engaging with other regulatory bodies via specific work-streams
- Gradually integrating broader ESG aspects into the Authority's supervisory framework
- Providing guidance to industry on how to integrate climate risk in Pillar 2, namely governance, risk management and ORSA
- Actively monitoring and responding to developments with respect to climate-related disclosure

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