

Climate change and the Prudent Person Principle

The implications of climate change on PPP compliance

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As a global risk, climate change risk could have a significant, irreversible impact on all types of assets held by insurance companies, raising questions about their financial sustainability from a long-term perspective. The Solvency II Prudent Person Principle requires insurers to capture all risks arising from their investment portfolios—which would include climate change risk. And thus, climate change risk should be a key consideration in evidencing an insurer's Prudent Person Principle compliance.

Background

THE PRUDENT PERSON PRINCIPLE

The Solvency II (SII) Prudent Person Principle (PPP), Article 132 of the Solvency II Directive, sets out rules and principles to be followed by insurers when carrying out asset investment activities. Following the publication of the Supervisory Statement (SS) 1/20¹ by the Prudential Regulation Authority (PRA) on 27 May 2020, the PPP is expected to imminently return to the top of companies' agendas for performing a near-term exercise to identify any gaps between their current processes and the PRA's expectations, and to develop a rectification plan.

Milliman discusses key PRA expectations with regards to PPP, and their implications, in a paper [here](#).

While there has not been a significant focus on climate change risk within the updated SS 1/20, this does not make climate change risk any less important in the context of PPP. For example, the PPP requires insurers to only invest in assets whose risks they can properly assess and manage effectively, and not to expose themselves to risks they cannot. For complex risks, such as climate change risk, the PRA expects insurers to avoid overexposure, either through a single

exposure or an accumulated exposure, before having a sufficient understanding of how the risk itself may evolve and reflect on their balance sheets, and to have appropriate mitigation measures in place.

The PRA's expectations of the approaches to be taken by insurers to manage the financial risks from climate change, which are set out in the PRA's SS 3/19,² were also referenced within the PPP SS 1/20.

INVESTMENT RISKS ARISING FROM CLIMATE CHANGE

The risks arising from climate change are commonly categorised as "physical" risks and "transition" risks. Physical risks are risks that emerge from changes to the environment, such as more frequent extreme weather events and shifts in the climate. Transition risks emerge as societies move towards a lower carbon economy, such as the effects of asset repricing or new regulation in response to climate change. The manifestation of climate change can pose investment risk to insurers in many ways. Transition to a lower carbon economy clearly poses investment risk, as new laws or policies drive shifts in asset values or could even result in stranded assets. However, physical risk also poses a threat to the value of insurers' investments, as certain sectors in which an insurer invests may be directly impacted by the physical consequences of climate change, such as the transportation, agriculture and utility sectors.

Some examples of how climate change risk may affect certain key asset classes invested in by insurers include:

- **Equities:** Changing sentiment or regulatory developments may reduce the share price of companies in certain sectors. For example, a large-scale shift in demand from traditional, carbon-intensive energy towards renewable energy would devalue, or create a drag on the value of, companies operating purely in the fossil fuel sector.
- **Corporate bonds:** Sector-driven impacts on equity capital would have a similar impact on the value of a company's debt capital. For example, for companies operating within traditional, carbon-intensive sectors, the change in regulation around climate and investors' preferences may significantly affect their future income streams and ongoing sustainability, and hence the capability of honouring the existing committed debt repayments.

¹ PRA. Supervisory Statement 1/20.

² PRA. Supervisory Statement 3/19.

- **Government bonds:** The impacts of climate change could increase the credit risk of government debt issued in countries that rely heavily on natural resources, such as major mining operations and oil and gas drillings. This is less likely to pose a material risk for the government debt issued by developed markets such as the UK. However, a disruption in the traditional credit market may create a knock-on impact in the sovereign bond market.
- **Property:** Property investments are vulnerable to both the physical and transitional effects of climate change, with property valuations likely to be impacted by increasing risks of flooding or rising sea levels, for example, or by failing to meet relevant energy efficiency regulations. Insurers often have significant indirect exposure to property via their bond portfolios as the collateral for loans.

The SS 3/19, "Enhancing banks' and insurers' approaches to managing the financial risks from climate change," sets out the PRA's expectations for how firms should be factoring the financial risks of climate change into their governance arrangements, risk management, scenario analysis and disclosures. The PRA's Dear CEO letter, released on 1 July 2020, "Managing climate-related financial risks – thematic feedback from the PRA's review of firms' SS 3/19 plans and clarification of expectations,"³ demonstrates further the PRA's expectations around building up the ability to appropriately assess and manage climate change risk, setting firms a challenging timeframe to fully embed climate risk management frameworks by the end of 2021.

It is clear that firms are now expected to have an understanding of how climate change may pose a financial risk to their business, and such considerations should be embedded within their analyses and decision making.

The PPP should be central to an insurer's investment activities, and likewise, awareness of the risks posed by climate change should underpin the investment decisions made by insurers. In light of these circumstances, this paper explains why climate change risk should be a key consideration when assessing PPP compliance, and sets out ways in which the risks of climate change can be incorporated into PPP assessment. It then goes on to consider requirements and current market standards for climate change risk and PPP disclosures.

Why climate risk is important for PPP assessment

SS 1/20 makes explicit reference to climate risk as follows:

"The more complex the risk and the less understood it is (e.g. climate risk), the more difficult it is for firms to manage their exposure to such risks effectively. Therefore, the PRA expects firms to be able to pay

particular attention to such risks in their investment risk management policy and to avoid overexposure to such risks. For example, firms should consider whether there is an excessive accumulation of financial risks from climate change in their investment portfolio, consider appropriate mitigants to those risks and note the expectations set out in SS 3/19."

In this section we set out why climate risk should be a key consideration when assessing PPP compliance by reflecting on some of the key PRA expectations for PPP compliance from a climate risk perspective.

UNDERSTANDING OF ASSET RISK EXPOSURE

"Firms may only invest in assets the risks of which they are able to identify, measure, monitor, manage, control, report and take into account in their assessment of own solvency needs in the own risk solvency assessment (ORSA)"⁴

This is generally considered to be an overarching requirement for PPP compliance. However, it is widely accepted that climate change and the risks that it poses to insurers are difficult to fully quantify for various reasons:

- The impacts of climate change are unclear and will evolve over a long time horizon, far beyond an insurer's typical business planning horizon.
- Climate risk has highly interconnected underlying factors, the majority of which are beyond an insurer's control.
- The progression of climate change may not be gradual or smooth. Changes that appear sudden may occur as underlying factors reach tipping points. Therefore, past data will not be a reliable indicator of future events.

In June 2020, the PRA published its feedback on the Insurance Stress Test (IST) 2019 exercise,⁵ which contained the first climate change-focused scenarios instructed by the PRA, and for some insurers was the first ever climate change scenario analysis they conducted. In its feedback, the PRA highlighted weaknesses in insurers' data, tools, processes and expertise in the context of performing climate change scenario analysis. This evidences the difficulties that insurers are experiencing in assessing the risks posed by climate change.

As well as ensuring an understanding of existing asset exposures, growing awareness of climate risk and increasing demand for products which meet Environmental, Social and Governance (ESG) criteria may encourage insurers to invest in "greener," or more innovative, assets. This may introduce new types of risk that require different expertise in order to fully understand and effectively manage.

³ PRA. Dear CEO Letter.

⁴ PRA. Supervisory Statement 1/20, paragraph 3.2.

⁵ Milliman's analysis of the PRA feedback on Insurance Stress Test 2019.

In line with the requirements under the PPP, if an insurer is not able to adequately assess the climate risk exposure for a particular asset, it should take steps to reduce its exposure to that asset to a prudent level.

Further, this aspect of the PPP implies that the risk that climate change poses to an insurer's assets should be taken into account in the ORSA. However, the time horizon considered in the ORSA is typically shorter than the time horizon over which climate change risks will evolve. Nonetheless, insurers should ensure that longer-term considerations such as climate change risk exposure are considered in some capacity in the ORSA to ensure PPP compliance. The European Insurance and Occupational Pensions Authority (EIOPA) has recently published a consultation on the use of climate change risk scenarios within the ORSA,⁶ and firms are invited to provide their views on this consultation by 5 January 2021. In addition, Milliman is shortly due to release a paper which discusses climate change considerations in respect of the ORSA.

RISK MANAGEMENT

*"The Chief Risk Officer is responsible for managing and reporting to the board on risk management strategies and processes in place, including those relating to investments."*⁷

The PRA expects insurers to have robust risk management frameworks in place to properly manage risk exposures. These frameworks should cover an investment risk management policy which includes quantitative investment limits and a policy for when these defined limits are breached.

Similarly, in SS 3/19 the PRA sets out its expectation that firms should address the financial risks from climate change through their existing risk management frameworks, in line with board-approved risk appetite levels. In addition, the PRA requires firms to nominate a Senior Management Function (SMF) to act as a risk owner for climate change risk and to take responsibility for the management of this risk. This role is often allocated to the Chief Risk Officer (CRO).

In its subsequent Dear CEO letter the PRA further emphasised its expectations in this area, and clarified that firms should have fully embedded their approaches to managing climate-related financial risks by the end of 2021.

As such, there is a clear link between the PRA's expectations regarding PPP compliance and managing the risks from climate change; a robust management framework covering all investment risk exposures, quantifiable or unquantifiable, is required under the PPP, and this should entail climate change risk, the management of which should be fully embedded into risk management frameworks within the required timeframe.

⁶ EIOPA consultation on climate change scenarios in the ORSA.

⁷ PRA. Supervisory Statement 1/20, paragraph 1.7.

VALUATION UNCERTAINTY

*"The PRA expects that firms will have effective systems and controls in place to limit and manage their exposure to valuation uncertainty."*⁸

Climate risk should be a key factor to consider as part of the assessment of the valuation uncertainty risk for assets held by insurers to ensure the valuation is fair, appropriate and reliable, as well as not materially overstated.

The valuation uncertainty risk for an asset arises when, at the reporting date and time, there is a relatively wide range of plausible values for the asset in question. As a result, the value of the asset is uncertain, and possibly unreliable. Generally speaking, this type of asset risk is mostly associated with illiquid assets, where the valuation is not publicly available, and instead is normally determined by using an alternative mark-to-model approach. Climate risk should be a key consideration to insurers within the valuation process of illiquid assets.

For example, when using a discounted cash flow approach to valuing an existing portfolio of commercial real estate loans, climate risk may affect the expected loan repayment profile in the future. For instance, a trend of a significantly higher frequency of future flooding in one region, as a consequence of deterioration of the environment, may cause major disruption to many retail businesses, and reduce income revenue for these businesses for a typical year; or an observation of an in-progress development of people's perception for the idea of "green shopping" could divert more customers to shop online instead of going out to local high streets, which could damage the ongoing sustainability of certain businesses. Both types of climate risk-related events may affect the total amount expected to be received from loan repayments in the future due to the shortening of the overall loan term; or the timing (and delay) of these loan repayments as a result of repayment holidays. In a worst case scenario this could lead to default on the loan.

In extreme cases, the possibility of asset holdings becoming "stranded assets," whereby the asset becomes obsolete, leads to large-scale reductions in asset valuations perceived by investors. This is commonly seen as a key risk for assets that have a direct exposure to natural resources such as fossil fuels. In this scenario, there would be no active market in which to offload the asset from the balance sheet.

OUTSOURCING

*"Rule 7.1 states that "if a firm outsources a function...it remains fully responsible..."*⁹

Although the wording in the latest PPP requirements has been relaxed to some extent for the part concerning outsourcing investment activities by insurers, firms are reminded by the PRA that they are still fully responsible for discharging all of its

⁸ PRA. Supervisory Statement 1/20, paragraph 6.6.

⁹ PRA. Supervisory Statement 1/20, paragraph 4.1.

obligations under the SII rules and regulations, including those with regards to PPP. In this context, an insurer's obligations include understanding whether or not the company's assets have a material risk exposure to future climate change, originating from its investment outsourcing activities.

Investment outsourcing service providers, i.e., asset managers, must invest and manage assets on an insurer's behalf by following predefined rules and guidance set by the insurer. An investment outsourcing contract which does not consider climate-related factors may increase the risk, without raising an alarm, of asset managers choosing assets that may offer attractive returns from the outset, but may be particularly vulnerable to future climate changes, and hence inconsistent with an insurer's long-term business objectives. This may in the end lead to an excessive exposure by the insurer to climate risks that is beyond its appetite and also its ability to manage the risk effectively. Either of these scenarios may risk a breach of PPP requirements.

INCREASED DISCLOSURE REQUIREMENTS

"While the PRA is not seeking to impose additional reporting requirements..."¹⁰

SS 1/20 does not impose specific additional reporting requirements in respect of the PPP, and as such the overall PPP reporting requirements remain limited.

By contrast, climate-related disclosure requirements were among the key areas of focus by the PRA in SS 3/19. In particular, the PRA sets out that it expects firms to develop and maintain appropriate approaches to climate-related disclosures, and to engage with the various wider initiatives relating to this topic, in particular the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD).¹¹

The increasing level of disclosure requirements relating to climate change risk therefore presents insurers with an opportunity to enhance their PPP reporting practices, and to more actively demonstrate PPP compliance. This may also help to address growing levels of public interest, for example members of mutual insurers may demand a greater understanding of the extent to which their assets are exposed to climate change risk, and how this is being managed.

We consider the link between climate-related disclosure requirements and PPP disclosures later in this paper.

Integrating climate risk into PPP assessment

Given all of the above, we believe climate risk should be a key factor baked into the process of assessing PPP by insurers. If this has not already been the case, then gradually it should

become a key factor over time. An insurance company should already have a plan in place to translate its thinking into real-world actions in order to better embed climate risk management within various regulatory compliance frameworks. For life insurers, this means most notably the regulatory compliance framework for PPP.

In this section, we discuss how we can integrate climate risk considerations into each key component of the PPP assessment.

SCOPE OF THE ASSESSMENT

Although the key focus of the PPP, and accordingly this paper, is on external assets acquired by insurers, for some insurers, certain products are also categorised as assets on the company's balance sheet, as insurers can capitalise projected future profits under Solvency II. Therefore, it is expected that these products would also fall within scope for reporting for the purpose of PPP compliance. In this case, the climate risk implications, directly or indirectly, should be analysed by the insurer and disclosed appropriately.

STRATEGIC CONSIDERATIONS

Assets bought today determine what risks, and the level of the risks, that an insurer will be exposed to in the future. For risks such as climate risk, where there is still considerable room to improve the understanding of its behavior, extra care should be taken when key investment decisions need to be made.

Insurers should take a strategic view on climate risk, which is a genuine risk faced by insurers from any perspective, and should take a strategic approach to the management of financial risks in their investment portfolios in relation to climate risk. This is a key expectation of the PRA as set out in the SS 3/19.

For example, a top-down approach here may mean for the insurer:

- To formalise a high-level view on the potential threat posed by climate risk to the business, particularly the assets held, given the existing business strategy and investment strategy
- Given this potential threat, to understand its desire for the extent to which the business should be climate risk-resilient, giving consideration to investment sustainability
- To set up appropriate goals to translate the company's strategic view and desire into an actionable plan for the business to execute

What an insurer should be mindful of during this strategic planning exercise is that its internally formalised strategic view, and the subsequent action plan, must be aligned with the general trend of the world aiming to transition to a low-carbon economy as a whole. In our experience, this may involve checking the company's own beliefs and views against a published guideline or a widely recognised international standard with regards to environmental development.

¹⁰ PRA. Supervisory Statement 1/20, paragraph 2.4.

¹¹ Recommendations of the TCFD.

To achieve this, the desire and willingness of the company's Board to engage is key. An assessment should be carried out by the business in order to understand the Board's level of awareness of climate risk to the business in both short and long time horizons. Follow-up training delivered by either internal or external experts may be appropriate in order to enhance the level of Board engagement and understanding, through which greater support from the Board can normally be sought, maximising the chance of success in the implementation of the strategic plan which normally follows.

STRATEGIC ASSET ALLOCATION AND INVESTMENT STRATEGY

Following close engagement with the Board, an actionable plan should be created to drive the business towards its strategic goal. This may involve revisiting the company's existing investment objectives, strategic asset allocation (SAA) plan and investment strategy, with both short-term and long-term climate change implications being given consideration by insurers during these exercises.

Traditionally, a SAA plan sets out its targeted asset allocation rate for different asset classes, such as sovereign debts, corporate bonds, private investments etc. With climate risk in mind, insurers should consider adding a new overarching layer for targeted asset allocation by splitting investments into "green" investment which is climate-sustainable (e.g., investment in the renewable energy sector), and "brown" investment which attracts climate risk exposure to various degrees (e.g., investment in the agriculture sector). The "brown" investment can be further split, if appropriate, according to carbon dioxide exposure, for example.

The revised SAA plan should be utilised to understand what management actions to take to transition the existing asset portfolio to a targeted portfolio, if a gap were to be identified. But more importantly, new asset investment appraisal should be considered with, and decisions should be made upon this updated SAA plan, in order to ensure the insurer does not accumulate any new or further unwanted risks while offloading existing ones.

Undoubtedly, categorising assets into "green" and "brown" groups is a nontrivial task (indeed, in the PRA's feedback on the IST 2019 exercise it acknowledged that some insurers found it challenging to map individual assets to specified sectors). However, this is very much the minimum that insurers need to do, and insurers should look to enhance their capabilities for doing so more efficiently and logically in coming years. Insurers may be able to use the climate risk disclosures from participants of other industries to aid this categorisation.

The investment strategy should provide detailed guidance to asset managers in implementing the planned asset allocation strategy in practice. Going forward, this strategy may involve

setting thresholds or limits for asset risk factors which take environmental factors into account. For example, a threshold could be that the investee should be at least carbon-neutral for any investment to be considered, before an assessment of any other investment constraints is carried out. Alternatively, the total asset portfolio should not decrease in value by more than a certain percentage point under, say, a 1-in-20-year climate stress event.

By following the above approach, an insurer's ability to understand and assess climate-related risks may gradually improve over time. This can then feed back into the SAA and the investment strategy-setting processes, and hence create a virtuous cycle for appropriately understanding and managing the true asset risks the firm is exposed to, a critical step for PPP compliance.

It is important to note that any change to the SAA may have implications for the company's investment risk policy as required under Solvency II. This is considered further in the next section.

RISK MANAGEMENT FRAMEWORK

Climate change risk assessment needs to be fully embedded into insurers' risk management frameworks. In SS 3/19 the PRA sets out its expectations relating to how climate change risk should be identified, measured, monitored, managed, mitigated and reported. Subsequently, the Climate Financial Risk Forum (CFRF, jointly established by the PRA and the Financial Conduct Authority) produced a guide to support firms in integrating climate risk into wider enterprise risk management areas.¹²

Milliman has prepared a summary of the CFRF guide [here](#). It summarises how the CFRF proposes that firms embed climate risk into risk management processes.

A key consideration when incorporating climate change risk into a risk management framework is whether it is considered as its own principal risk type, or whether it is a risk within other existing risk types, such as market risk and life underwriting risk. Work then needs to be undertaken to either establish a standalone climate risk policy or integrate climate risk into existing risk policies. Emerging best practice suggests that treating climate change as a factor within existing risk types is the most productive way forwards.

Insurers will need to establish the measures against which climate risk exposure will be assessed, the methodology for calculating these measures and their limits and tolerances for these measures. For example, insurers may choose to measure their asset portfolio in respect of carbon emission intensity (tonnes of carbon dioxide per £1 million invested), and define thresholds to specify whether the current exposure is red, amber or green with respect to current risk appetite.

¹² CFRF Guide: Risk Management Chapter.

Milliman has performed extensive research into climate change risk metrics, as discussed in [this paper](#).

By specifying a framework against which climate risk will be assessed, insurers will be able to compare their existing investment strategies to climate risk appetite, as discussed in the previous section. Given that many insurers are likely to be starting from a point where the climate risk exposure of their portfolios has either not been a key focus, or has not been fully quantified, it is expected that many would uncover shortfalls against climate risk appetite, and fail to fall within their green risk appetite zone. However, by establishing a framework to assess this exposure, insurers will be better informed to take steps towards achieving a level of climate risk exposure that falls within risk appetite.

QUANTITATIVE EXPLORATORY ASSESSMENT

Scenario analysis and stress testing are key tools that allow insurers to develop their understanding of how risk exposures could impact their balance sheets. Therefore, by building in climate change scenarios to their risk management processes and their ORSAs, insurers can gain an understanding of a portfolio's sensitivity to the risks of climate change and can be better informed to rationalise their exposure levels. Ultimately this would enable greater PPP compliance.

However, as noted earlier, one of the findings from the PRA's IST 2019 exercise was that there are currently weaknesses in insurers' climate scenario analysis capabilities. This was also emphasised in the recent PRA Dear CEO letter, which stated that firms have significant gaps in their capabilities, data and tools, and have not yet integrated scenario analysis into their broader risk assessments. This is expected to be a continued area of focus for the PRA, with the 2021 biennial exploratory scenario exercise focussing on the financial risks posed by climate change.

Whilst insurers develop their climate scenario analysis capabilities, one approach could be to start with a simplistic approach using existing functionality and build in complexity over time. For example, the impact of transition risk could initially be analysed by performing a percentage-based asset stress to the whole portfolio. This could gradually be tailored, e.g., by adjusting the stress applied to different asset classes or different sector exposures. However, in order to form a more comprehensive understanding, more sophisticated techniques would need to be developed which model the dynamics of underlying causal factors of the impacts of climate change, and analysis would need to be applied over longer timeframes than insurers are likely to adopt currently.

OUTSOURCING MANAGEMENT

As explained in the Strategic Asset Allocation and Investment Strategy section above, insurers must formalise their own views on climate risk-related asset allocation and investment strategy by specifying to what extent assets potentially exposed to climate risks should be invested in (or indeed the

extent to which only sustainable or green investments are allowed). Insurers should also define the criteria and metrics for asset managers to follow to keep overall climate risk exposure that arises from investment activities, either in-house or outsourced, within appetite, consistent with the business strategy and in turn better aligned with PPP expectations.

The Board should be clear about what investment activities have been outsourced, and it should be satisfied that appropriate actions would be taken to ensure that relevant metrics and limits are followed tightly by external asset managers, including those limits in respect of climate exposure. This is particularly important if the asset managers are incentivised, for whatever reason, to invest in assets that could be viewed as being particularly vulnerable to future climate changes.

Climate-related risk management policy and sustainable investment capability should be explicitly considered and assessed in the process of engaging and selecting new asset managers. The Board of the insurer should be comfortable that the asset manager selected is capable of investing responsibly and in line with the long-term strategic view of the business, for example on transitioning to a low-carbon business model.

Insurers should also consider the wider standards they wish to set for appointing external asset managers. For example, an insurer may consider it sufficient if asset managers offer a particular ESG-style fund which meets their defined criteria, or insurers could go even further and only appoint asset managers whose entire asset portfolios meet certain ESG standards.

Any existing contracts with external asset managers should also be reviewed, and renegotiated if appropriate, according to the same criteria.

Insurers may also take advantage of obtaining climate-related data from their external asset managers, which may already integrate environment-related issues into their risk management frameworks and asset selection processes. This would help insurers to better understand the climate risk from assets originated from third parties within its own investment risk management framework, and check whether they agree with the investment decisions made. This may also assist the company's risk management of other assets managed using in-house capabilities. This would lead to greater levels of collaboration and information provision between asset managers and insurers, which means more importance should be placed on the due diligence performed when selecting asset managers and also on regular relationship management.

OPERATIONAL CONSIDERATIONS

All sounds good, but clearly there is a lot of work for insurers to do, as well as cost implications. What are the practical issues in the implementation of the various points discussed above?

To ensure success in implementing a "sustainable" PPP compliance policy, the Board's engagement and buy-in would be

key to ensure that the right and suitable resources are provided. The PRA's recent Dear CEO letter came at the right time and should provide the required push for Board buy-in. As already mentioned, the PRA's expectations were for insurers to fully embed their approaches to managing climate-related financial risks by the end of 2021. Insurers may find this timeframe particularly challenging in light of the current pandemic.

The right expertise could be hired externally if deemed appropriate to enhance an in-house management function; or it could be borrowed, e.g., via a consulting firm, to supplement the existing knowledge base. The approach more suitable to each insurer may depend on its current stage in the journey of climate risk management.

Someone with the right and suitable expertise should be able to join the dots between the company's SAA plan and the building and developing of an asset portfolio mix that meets sustainable requirements. As the PRA reaffirmed in SS 1/20, the PPP was not intended to be a "one-size-fits-all" policy, and the assessment of compliance would be done on a case-by-case basis, taking into account the company's individual circumstances, which include people and expertise.

Another key aspect driving the success of the implementation of a "sustainable" PPP compliance policy is the relevant and appropriate data in an insurer's possession, and the tools that can be employed by it to process these data to inform climate-related asset investment decisions. This had been identified in the latest PRA's feedback to the IST 2019 as an important element where gaps were identified. Furthermore, the Dear CEO letter also suggested that the metrics and quantification remained the most challenging aspects of assessing this risk.

Some insurers may find that they need new or additional data for existing assets, and hence need to enhance their existing databases by obtaining the data and combining it with existing data. For example, the risk posed to assets by climate change is considered sector-sensitive, and thus having the appropriate sector data, and at a suitably granular level, will be needed for each asset held that is appropriate for climate-related assessment. Some insurers may find that the existing rules and approaches of the database need to be updated so that asset data can be grouped, for example based on "green" or "brown" classification of the asset and/or, if "brown," the related vulnerable market sector data; and to enable this data to be extracted out of the database easily and in a timely manner. This is considered a key step for carrying out the climate scenario analysis which was discussed in the Quantitative Exploratory Assessment section above.

Insurers should also coordinate their asset model review processes with climate development by, for example, setting up climate-related triggers for reviewing all internally designed valuation models (and assumptions) for assets to which they have a material exposure.

For insurers at an early stage of developing their own understanding of climate change risks, knowledge management would be another important key aspect to focus on, via researching or exploring. This may involve formalising a dedicated research team internally with an objective to understand the sustainability of the company's asset returns from a long-term perspective, or catching up with the best market practices via dialogues with their supervision teams, consulting firms and investment managers.

Lastly, as the Brexit transition period is approaching its end, there is still uncertainty around what solvency rules will apply to UK insurers in a post-Brexit world. Would PPP requirements continue to apply and be a key focus? And would climate considerations continue to shadow many business and investment management decisions? In our view, the answer to both questions would be likely to be yes.

Clearly, integrating climate risk into PPP assessment will not be a quick and easy exercise for insurers, and knowing where to start may be difficult. As is the case with any project, mapping out a clear plan and approaching it step by step will allow the end goal to be broken down into achievable interim tasks. The various aspects discussed in this paper provide the key elements that an implementation programme could entail, as illustrated in Figure 1.

FIGURE 1: IMPLEMENTING CLIMATE RISK ASSESSMENT



Climate risk reporting for PPP

HOW CAN A GOOD CLIMATE-RELATED DISCLOSURE AID PPP COMPLIANCE?

Climate-related disclosure is a key step for financial market participants to demonstrate how they embed long-term sustainability considerations within their investment decision-making, and what progress has been made to date. More importantly, it helps to improve data availability in the market regarding sustainable investments, and promotes continuous development and efforts in tackling environmental issues driven by the financial market.

We discussed the existing expectations of the PRA regarding climate-related disclosure requirements in an earlier section. Looking ahead, this is an increasing area of focus, and there are likely to be more regulatory requirements published by various types of regulators in the global financial market, such as the final text of the EU Regulation 2019/2088 on sustainability-related disclosures in the financial services sector (SFDR),¹³ which consolidates existing expectations and early requirements together with an updated view, and establishes a vision for harmonised ESG disclosure standards from a long-term perspective.

Therefore, climate-related disclosure (or reporting) is not a simple regulatory compliance checkbox exercise. It aims to achieve more than that. Nevertheless, good climate-related disclosures by insurers would still be helpful in showcasing that they are PPP-compliant.

Unlike general insurers, the liabilities of life insurers are generally not strongly correlated with climate changes in a direct manner. This view may evolve when we understand climate risk effects better in the future. Despite this, what it implies is that, for life insurers, the main current focus of climate-related disclosure would be on the asset side of the balance sheet, which is the key focus of PPP as well. Therefore, by making detailed, relevant and insightful climate-related disclosures, life insurers should be able to meet both requirements.

WHAT AND WHERE TO REPORT?

Reporting can be split into internal reporting and external reporting. Whilst not prescribed under SS 1/20, the table in Figure 2 sets out a number of examples for areas of reporting an insurer should consider to demonstrate PPP compliance. Climate-related information should also be considered for disclosure, where appropriate and relevant.

FIGURE 2: AREAS OF REPORTING CONSIDERATION

	AREA	REPORTING ITEM
1	Internal	Corporate strategy planning
2	Internal	SAA planning
3	Internal	Risk appetite statements
4	Internal	Investment risk management policy/framework
5	Internal	New asset investment appraisal
6	Internal	External asset manager engagement policy
7	Internal/Regulator	ORSA
8	Internal/Regulator	RSR
9	Public	Annual or semiannual reports
10	Public	SFCR

Beside quantitative information, qualitative information should also be considered for disclosure to provide useful background to the audience, as well as insightful information about forward-looking management actions in possession or to be explored. This demonstrates that the company has identified certain areas of interest, potentially involving weaknesses, and is willing to develop its capability of assessing the magnitude of some less understood emerging risks, such as climate risk, within its risk management framework to further improve the resilience of the business to such risks.

The granularity of the climate-related information to be reported will vary from firm to firm, given a firm's individual circumstances. As set out in SS 1/20, the PPP requires compliance to be assessed on a case-by-case basis, and the granularity of the assessment will be subject to the individual asset type. This implies that the reported information on climate risk may also vary in format and granularity across individual firms such that, for certain insurers, climate exposure may need to be analysed at a lower level of granularity based on materiality and characteristics.

¹³ EU Regulation 2019/2088 on sustainability-related disclosures in the financial services sector.

Conclusion

Clearly there is a strong link between ensuring PPP compliance and considering the risks posed to insurers by climate change. Climate change should therefore be a key consideration for insurers when evidencing their PPP compliance.

The intersection between PPP compliance and climate change considerations spans a broad range of areas, including strategy, investment management, risk management and scenario analysis, outsourcing, operations and reporting. Embedding the link between PPP compliance and climate change will therefore require collaboration across the business and with external providers, and will also require insurers to keep up to date with the regulator's developing expectations.

However, a robust assessment of the risks and consequences of climate change provides insurers with an opportunity to strengthen their level of PPP compliance, improve consumer engagement and enhance disclosures.

Regulators in the UK and worldwide are encouraging asset owners, such as insurers, to make useful and comparable climate-related public disclosures in their reporting to the market. Insurers in the UK should take advantage of this opportunity to focus on key information that is relevant to both climate risks and their intended asset risk management strategies in order to engage with good market practices in managing such risks over the business planning period and beyond, and remain sustainably PPP-compliant.



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