JULY 2, 2020

Storebrand Asset Management and SKAGEN Funds response to HM Government consultation on guidance:

ALIGNING YOUR PENSION SCHEME WITH THE TCFD RECOMMENDATIONS

storebrand

SKAGEN

Part of Storebrand

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Storebrand Asset Management and SKAGEN Funds

4. What do you like about the guidance? / What is most useful?
Answer

The guidance is comprehensive and accessible, making it clear that climate change is a material financial risk that should (and can) be considered by pension funds of all sizes and resources.

We like the focus on practical, detailed advice and references to specific TCFD items in each section.

The guidance does well to highlight how climate risk management and stewardship should be considered across the whole portfolio of an investor, including all management styles and asset classes, while outlining that flexibility in approach can be employed.

5. What don't you like about the guidance? / What needs improving the most?
Answer

We believe higher ambition is needed in order to achieve Paris-alignment, schemes should be encouraged to consider a 1.5°C scenario which is fully aligned with the Paris Agreement. The current focus on 2°C or lower is not sufficient.

We have a concern about greenwashing risks from tick-box solutions such as low carbon benchmarks and products that claim to be Paris aligned when they are constructed based on specific, individual scenarios. These risks should be more clearly highlighted to trustees in the guidance, particularly as low carbon indices and scenario tools are promoted by the PCRIG.

More focus should be given to the uncertainties and assumptions underlying climate scenarios, to ensure they are used appropriately. Guidance should also be provided as to what is appropriate use of climate scenarios and which scenarios are reasonable and plausible, due to the risks from overshooting the temperature target and excessive reliance on negative emissions.

More attention could be given to climate solutions and opportunities. There is an inconsistency in using GHG emissions intensity data to judge both climate negative and climate positive companies, due to the lack of robust data on full lifecycle emissions. This affects capital allocation and should be addressed. Further details are provided in this response.

6. Is the current structure helpful?
Answer

Yes, the structure is helpful.

7. Does this guidance provide schemes with everything they need to:
a) manage climate risks
b) disclose in line with the TCFD recommendations?
Answer

Specific guidance for trustees on materiality and consistency of metrics, alongside potential pitfalls, across and within products, sectors and jurisdictions is required. We provide detail on these items throughout this consultation response below.

More guidance could be provided to trustees on judging net zero targets and Paris alignment, both of which can represent a portfolio risk if not clearly understood. Further details are provided in this response.

8. Have we missed anything?

The need for a 1.5°C reference scenario is missing from this guidance. This should be addressed.

The need for caution in using incomplete climate data to systematically allocate assets is missing.

More focus should be given to climate solutions.

9. Part I - Please provide any comments on "Introduction - Understanding climate change as a financial risk"
Answer

The guidance begins with a strong focus on the goals of the Paris Agreement and the risks to delayed action:

"The Paris Agreement aims to ensure that the increase in average temperatures above pre-industrial levels is kept to 'well below' 2°C by 2100 and to pursue efforts to limit the temperature increase to 1.5°C. The longer the delay in climate policy action, the more forceful and urgent any regulatory policy intervention will inevitably be and the more severe the likely impact will be on companies and investors."[1] *(p13)*

We agree that this focus is important as many of the current tools and scenarios available for portfolio measurement are based on pathways representing delayed action and targets that are *not* 'Paris-aligned'. In 2018 the IPCC highlighted that the difference between 1.5°C and 2°C is stark, with greater risks to biodiversity, human life and ecosystems at 2°C of warming.[2] The LSE Grantham Institute for Climate Change and the Environment recently noted that for institutional investors:

[1] PCRIG Guidance page 13
[2] IPCC, Summary for Policymakers. In: *Global Warming of 1.5°C* (2018): https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf

"***limiting global temperature rise to 1.5°C is the best way to secure the long-term financial stability that is at the core of their mandates***".[3]

Delayed action will lead to increased risks; scientists have warned of the risks to dangerous climate tipping points beyond warming of 1.5°C.[4] Further, scientists focus on the amount of uncertainty inherent in climate models. This uncertainty is necessary in climate science but is often absent from the discourse when applying these models and scenarios to portfolio management.

Determining Paris-alignment is a complex task when applied across the portfolio of a universal investor. This is due to incomplete and inconsistent company emissions data, the evolving nature of climate science and scenario analysis, and the limited availability of robust and plausible Paris-aligned scenarios for measuring company and portfolio performance. For these reasons, we advocate a best-efforts and mandate-specific approach, using transparent reporting metrics and climate research according to the type of portfolio and asset class in question.

We believe there is a risk to relying on a tick-box scenario measurement tool, many of which have been promoted in this guidance, which trustees must be aware of. Further information is provided in the scenario analysis section below (Q17).

The guidance notes that "Restricting global average temperature increases to these levels will require a significant change in the fundamental structure of the economy at national and international levels" (p15). Pension funds continue to increase passive investments, with over 55% of scheme equity assets now passively managed.[5] Research demonstrates the MSCI World Index is aligned with 5°C of global warming.[6] Large proportions of pension scheme portfolios are therefore exposed to the broad economy, which is built on carbon-intensive energy systems. Merely tilting around the existing model will not deliver fundamental change or a Paris-aligned exposure.

We agree with the PCRIG that significant capital is at risk across pension fund portfolios as a result of the transition to a low carbon economy. However, traditional portfolio management techniques do not reflect or manage these risks, particularly where data is incomplete or misused. More information is provided in the scenario analysis and metrics and targets sections below (Q17 and 18).

10. Part I - Please provide any comments on "The legal requirements on pension trustees"
Answer

There is a difficult balance to be struck between voluntary and mandated disclosures in a rapidly changing environment, due to ongoing developments in climate science and data availability/inconsistencies.

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[3] N. Robins, 'Time for finance to turn down the heat'. *Grantham Research Institute for Climate Change and the Environment* (26 February 2020): http://www.lse.ac.uk/GranthamInstitute/news/time-for-finance-to-turn-down-the-heat/

[4] IPCC SR15 (2018)

[5] Mercer, 'European Asset Allocation Survey' (2019): https://info.mercer.com/rs/521-DEV-513/images/ie-2019-european-asset-allocation-survey-2019.pdf

[6] S. Stephens, 'Estimating Portfolio Coherence with Climate Scenarios', Mirova Responsible Investing (2018): https://www.mirova.com/sites/default/files/2019-05/EstimatingPortfolioCoherenceWithClimateScenarios2018_0.pdf

Given the short timeframe associated with meeting the Paris Agreement, as outlined in the IPCC 1.5°C report in 2018, we believe that mandatory reporting is necessary, particularly for high-emitting sectors, however flexibility and dynamism within the legislation is important. For example, guidance on materiality and consistency of metrics, alongside potential pitfalls, across and within sectors and jurisdictions is required.

Without consistent disclosures from the underlying companies in which pension funds invest, accurate reporting and a clear understanding of climate-related risks is not possible. This can lead to unintended risk exposures on the basis of incomplete information. Three key areas of risk in this regard are:

- Reliance on either BAU or unambitious scenarios that claim to be 'Paris-aligned' or represent sustainable development, such as IEA 2DS or SDS (further information provided below). This could lead to locking in a pathway reliant on unproven technology within the next ten years, if emissions do not reach a peak in 2030 as outlined by the IPCC.[7]
- Lack of Scope 3 data in sectors where it is material, such as energy and agriculture
- Replacing passive assets with new 'low-carbon' indices, based on systematic data optimisation without expert oversight and intervention can lead to:
    - Overweighting companies that are exposed to the fossil fuel economy and underweighting companies that provide climate solutions, due to a lack of lifecycle data.
    - Unintended market risks from rebalancing capital towards certain countries and sectors, such as US technology.[8]

Regulations that impose performance measurement vs prescribed targets and metrics that are not clear or ambitious enough can lead to ineffective tick-box responses and greenwashing. For example, use of unambitious or unrealistic scenarios. Further, regulations requiring pension fund disclosures based on incomplete underlying information can be misleading.

The new regulations require trustees to disclose how their voting and engagement policies have been implemented. When investing in passive funds, trustees are reliant on their asset manager's actions, therefore we believe that the choice of asset manager is as important as the choice of fund when it comes to climate risk management, portfolio construction, governance and stewardship.

Given that climate change is a material risk affecting all aspects of the economy, effective scheme governance will require ongoing training in order to keep abreast of developments in the science and the market. Investment managers should provide pension fund governors with access to client facing functions that specialise in climate change and sustainability, along with regular communications regarding climate and sustainability risks and opportunities in their investments. These functions will help trustees to meet their fiduciary and statutory duties.

11. Part I - Please provide any comments on "The TCFD Recommendations"
Answer

We believe that it is important for companies to integrate climate risk in their regular risk management processes and reporting, as standard. We lead by example in that regard, reporting in line with TCFD recommendations in our annual report.[9] We integrate climate-related risk reporting

[7] IPCC SR15 (2018)
[8] FactorResearch (2020): https://www.factorresearch.com/research-esg-vs-low-carbon-investing
[9] https://www.storebrand.no/en/investor-relations/annual-reports/_/attachment/inline/d0e9764c-1757-4fe1-a96b-c71c90a998a4:7cf55a6b7cc6fcd106f6bad885985c4c3608b11d/2019-annual-report-storebrand-asa.pdf

throughout our annual report, including a TCFD Index, please refer to pages 20-23 and 210-211 in the attachment.[9]

Storebrand is supportive of the TCFD recommendations and keen to work with companies to improve the transparency of their climate related disclosures. For example, we worked closely with Equinor to develop their first TCFD report in 2018 (case study attached).[10] Storebrand is also leading a workstream within Finance Norway to create a simple "how to get started with TCFD reporting" guide aimed at helping companies with TCFD reporting requirements. This workstream will also involve guidance for asset managers.

The TCFD recommendations will be successful in their aim to "support more appropriate pricing of risks and allocation of capital in the global economy"[11] as long as disclosures are complete and comprehensive. Incomplete disclosures can be misleading for the effective pricing of capital and subsequent allocation with respect to climate related risks and opportunities.

In order to ensure the TCFD recommendations are effective, companies and trustees require clear guidance on what represents 'material information' with regards to the 'Strategy' and 'Metrics and Targets' elements. In particular, prudence is required in the following areas (further details are provided in the 'Scenario analysis' and 'Metrics and Targets' sections of this consultation response below Q17 and Q18):

- **Strategy**

Scenario analysis is a central element of the TCFD recommendations and is important for companies' and investors' ability to understand and manage climate-related risks and opportunities. However, the integrity of this analysis is dependent on the underlying assumptions and uncertainties in the chosen scenarios and climate models. In our response to Q17 we have laid out particular considerations with regards to the following:

Choice of scenario. A scenario targeting "2°C or lower" does not reflect the full ambition of the Paris Agreement or the UK Government's commitment to be a net zero economy by 2050. Capital allocation will flow in the direction guided by scenarios and so the choice of scenarios is particularly important in the next ten years, as outlined by the IPCC.[12] In the Storebrand annual report we reference three scenarios: A Successful Climate Action 1.5°C scenario, a Late Transition 2°C scenario and a Drastic Climate Change 3°C scenario.[13]

Tools for scenario analysis. The PCRIG guidance promotes the PACTA and Transition Pathway Initiative (TPI) tools. Trustees should note that both of these tools rely on scenarios presented by the International Energy Agency (IEA), which are not sufficiently robust or ambitious to be fully aligned with the Paris Agreement. These tools can offer insights but caution should be taken over their use, as outlined below. Storebrand has been lobbying the IEA for a robust 1.5°C scenario, as detailed below.

Scenario limitations. Integrated climate models are extremely sensitive to inputs such as discount rates and assumptions about future developments in technology. Care should be taken to

[10] https://www.tcfdhub.org/case-study/testing-the-tcfd-framework-an-equinor-and-storebrand-case-study/
[11] Final Report. Recommendations of the Task Force on Climate-related Financial Disclosures. June 2017 https://www.fsb-tcfd.org/publications/ Quoted in PCRIG guidance p26
[12] IPCC SR15 (2018).
[13] Storebrand Annual Report (2019) as above – footnote 9.

understand and appreciate the uncertainty in climate models. Another important area for consideration is the timeframe for analysis, when net zero is projected to be achieved and how.

How climate scenarios are used. Trustees are likely to require more guidance on what is a reasonable or appropriate use of climate scenarios and tools, given the ongoing developments, need for IEA scenario reform and other limitations. Scenarios can provide useful portfolio insights and guidance for strategy development and engagement but trustees should be wary of funds and indices that use specific scenarios for portfolio construction. Given the complexity of climate science and ongoing scenario development work, as well as the issue of missing Scope 3 emissions data, it is potentially misleading to construct a portfolio based on a single scenario or tool. More transparent metrics are required for climate-aware portfolio construction.

- **Metrics and targets**

Carbon footprinting analysis is currently based on Scope 1 and Scope 2 disclosures. The lack of lifecycle emissions data misrepresents both climate positive (solutions) and climate negative (high lifecycle emission) companies, meaning specialist oversight is required in order to understand where material Scope 3 exposures exist in a portfolio. If a tick box solution is applied on the basis of scope 1 and scope 2 emissions data alone then significant portfolio climate risks are often unmeasured and unmanaged.

Scope 3 GHG disclosures are only required in the TCFD recommendations 'if appropriate'. This is an area which is currently preventing effective market pricing and allocation with regards to climate related risks and opportunities. More guidance should be given on the materiality of scope 3 emissions data in certain sectors and industries, so that those disclosures can be required as appropriate.

Climate solutions companies are largely absent from mainstream benchmarks and can be punished by carbon footprint analysis that addresses only production phase not lifecycle emissions. This requires addressing if a portfolio is to achieve Paris-alignment or net zero and for trustees to benefit from the opportunities presented by the transition to a low carbon economy.

Target setting and disclosures. Trustees should consider the need for absolute emissions reduction targets, not only intensity measures. Coverage of net zero targets should also be explored, for example whether all assets and regions are covered as well as the lifecycle emissions of products. More disclosure is required in relation to company decarbonisation plans, use of offsets, lobbying activity and alignment of capital expenditure with decarbonisation targets.

12. Part II - Please provide any comments on “Defining climate-related investment beliefs”
Answer

The guidance highlights that trustees should consider clarifying their convictions around the balance between engagement, voting and/or divestment as appropriate tools to manage climate-related risks and that they should also consider the consistency of their beliefs. Consistency of beliefs in terms of managing climate related risk is important – managers' actions should match their words and policies. However, we would like to highlight that ***consistency does not mean having a binary approach to engagement vs divestment. Both are important tools in the toolkit of a climate-aware investor***.

Storebrand is a strong advocate of engagement and using our influence as asset owners. Engagement is at the heart of our approach to sustainable investment, it forms a core element of our collaborative culture and reflects our desire to contribute to a better world for our clients to retire into. We engage actively both directly with companies, particularly on climate-related and human rights issues, and through collaborative forums, such as PRI and Climate Action 100+. Yet, where we determine that engagement will not result in the more sustainable outcomes we are looking for, we believe divestment is a vital tool to protect the value of our clients' portfolios, manage known risks and support our engagement strategy.

The Storebrand Standard[14] is an exclusion list which is applied across all of our assets. It is based on international norms and conventions to ensure that we do not support unsustainable business activities, human rights violations, corruption or other undesirable social, environmental and governance practices with our investments. The decision to put a company on the Storebrand Standard exclusion list and divest is taken on the basis of whether successful engagement can or will lead to the necessary improvements.

Having the ability to exclude companies can be a powerful tool in the engagement process. For example, Storebrand Asset Management is currently leading and coordinating a group of international investors in an important public policy engagement initiative to tackle deforestation in the Amazon rainforest. Storebrand is one of seven investors prepared to divest a total of $5bn in investments linked to Brazil if we do not see steps towards more sustainable management of the rainforest.[15]

The guidance invites trustees to recognise how climate-related risks can be considered as a risk or an opportunity and that the approach can vary according to management style or asset class. We believe this is an important point which should be given more prominence in order to ensure schemes of all sizes can access climate-aware investment products across their whole portfolios.

We believe that a ***mandate-specific approach is necessary in order to effectively manage climate risk across the portfolio of a universal investor***. Storebrand manages £65bn[16] of assets across a wide range of asset classes and investment strategies. We have a net zero emissions target across the whole business and our strategy involves a combination of engagement, divestment and investment in climate solutions. For example, we are growing the fossil-free portion of our business in systematically managed strategies in order to replace market cap weighted index-based mandates that are not fit for purpose from a climate or ESG perspective. We are also growing the portion of our AUM dedicated to climate solutions investments.

In an actively managed portfolio, we can select companies that are aligned with a sustainable future and determine exposures on the basis of individual company analysis. For example, actively managed strategies can target companies that derive their revenues from products and services that are aligned with the UN Sustainable Development Goals (SDGs).

However, replacing passive portfolios with a climate-aware strategy requires a systematic assessment that can be applied across thousands of companies. This involves judgements across certain industries in order to avoid misallocations and hidden carbon exposures that occur from overweighting companies that are clearly not Paris-aligned. This need not mean 'blanket' divestment

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[14] https://www.storebrandfunds.co.uk/sustainability/exclusions/the-storebrand-standard

[15] Reuters (2020): https://www.reuters.com/article/us-brazil-environment-divestment-exclusi/exclusive-european-investors-threaten-brazil-divestment-over-deforestation-idUSKBN23Q1MU

[16] As at 31 March 2020

across the whole pension scheme portfolio for trustees but may apply to passive holdings in order to manage climate risk in a low cost, low risk strategy.

13. Part II - Please provide any comments on "Climate-related risks in investment strategy and manager selection"

Answer

When managing climate-risk, we believe manager selection is as important as the choice of product. For example, when replacing passive equities with pooled climate-aware solutions, it is important to question whether the manager takes ownership of the product construction, rather than merely wrapping an ineffective 'low carbon' index, and to consider the engagement, voting practices and results of those managers. To avoid greenwashing, the fund manager should be able to explain underlying carbon-risk exposures and demonstrate environmental integrity in portfolio construction, organisational culture and engagement activity.

Traditional portfolio management techniques are not proving effective for climate-risk management. We believe that climate science expertise is required to ensure robust portfolio alignment with the low carbon transition.

We advocate a mandate specific approach, depending on the asset class and choice of management style e.g. active or passive. We strongly believe that ***climate competence should be factored into the choice of passive managers and mandates***, as well as active. The guidance strongly points towards consideration of new 'low-carbon' benchmarks. We agree with the PCRIG that "climate change represents a negative externality that carries potentially very high and costly market-wide risks which may be largely unpriced or mispriced" (pg 35), therefore passive mandates require oversight from a specialist climate aware portfolio manager in order to avoid unintended risks and greenwashing. We would urge caution in selecting new low-carbon benchmarks to replace existing market cap indices, this should not be seen as a passive choice and trustees should scrutinise the underlying exposures and risks. Many low-carbon index trackers retain high anti-climate exposures.

We have provided examples of why this is a concern in our response to Q18 below. ESG and climate ETFs also tend to have sector and country biases that are unintended risks, not related to the low carbon transition.[17] Trustees should be aware of these risks and can seek specialist asset managers and products that recognise and manage them in a climate-aware portfolio.

We agree with the PCRIG that managers should be held to account on their management of climate related risks and reporting. We believe trustees should look for evidence that this applies across the whole asset management organisation and not only on a selection of SRI/ESG funds.

Trustees could look for commitments that match their own principles and targets, not only PRI but real-world targets and pledges. Trustees should also scrutinise the voting and engagement activities of managers.

We agree with the need to consider TCFD's focus sectors: Energy, Materials and Buildings, Transportation and Agriculture, Food and Forest Products. Trustees can look for evidence that managers are incorporating these sectors into their stewardship activities, as well as having an awareness of these sectors in climate-related portfolio construction. Another sector that warrants

[17] FactorResearch (2020): https://www.factorresearch.com/research-esg-vs-low-carbon-investing

attention is Financials, particularly the financing of activities related to coal and other stranded asset risks.

14. Part II - Please provide any comments on "Stewardship on climate issues"
Answer

As detailed above, we believe the choice of asset manager is as important as the product for managing climate risks in a portfolio. The new regulations from the DWP require trustees to disclose their voting and engagement policies. When investing in pooled funds, trustees are reliant on their asset managers' actions. Ceres analysed climate-related voting activity for 2019 and found that "only one climate-related resolution achieved a majority vote".[18] Despite recent statements on their commitment to sustainability, the large, passive managers continue to vote against the majority of climate-related proposals when, due to the size of their holdings, they could have swung the vote in most cases.

ShareAction analysed the responsible investment performance of the world's largest asset managers, including their approach to climate-related risk.[19] The industry-wide results were disappointing but with clear differences between the best and worst; the large US managers, including the world's biggest passive houses, fell within the lowest performance bands. All of the managers assessed are members of PRI and the majority support TCFD, 89% offer ESG-type products to their clients but, for a majority, their actions did not appear to match their words.

Storebrand supported 47 climate-related resolutions of the 49 it voted on in 2019. Sustainability is integral to our corporate culture and incorporated in every portfolio that we manage.

Engagement activity can be resource and time-intensive and so, particularly in the case of climate change which requires companies to take urgent action, we believe engagement should be targeted to companies and sectors that can make a substantial and reasonable difference. An example would be financial institutions with large indirect exposure to sectors with high climate risk.

We believe trustees should look for evidence that managers consider ecosystems and nature-based approaches, which are key to the adaption to and mitigation of climate change. These can offer both long term cost effectiveness and socioeconomic benefits when compared with technical approaches. We would urge trustees to look for engagement activities that consider sustainable land use change, oceans and ecologically important and vulnerable areas.

Further, we believe managers should engage publicly and be prepared to try and influence public policy, as well as individual company activity.

15. Part II - Please provide any comments on "Additional points for DB schemes"
Answer
N/A

16. Part II - Please provide any comments on "Reporting and member communications"
Answer
N/A

[18] Ceres. 'Why do some large asset managers still vote against most climate-related shareholder proposals?' (13 March 2020): https://www.ceres.org/news-center/blog/why-do-some-large-asset-managers-still-vote-against-most-climate-related

[19] ShareAction, Point of No Returns (March 2020): https://shareaction.org/wp-content/uploads/2020/03/Point-of-no-Returns.pdf

17. Part III - Please provide any comments on “Scenario analysis”
Answer

Using scenarios to measure and manage climate risk and guide strategy setting is an important element of the TCFD guidance which we strongly support and undertake as an organisation. However, this is a complex area for pension trustees and companies that requires clear guidance, scrutiny and oversight. We have highlighted below some key risks and considerations for scenario analysis which we believe should be incorporated into the PCRIG guidance.

- **Which scenario?**

Using a single scenario to measure and manage climate risk represents a risk in itself as it will embed the assumptions of that scenario in portfolio construction and analysis. The PCRIG notes that trustees should not rely on a single scenario and the TCFD recommends that a range of scenarios are used that "*include transition to a lower-carbon economy consistent with a high probability of a temperature rise of less than or equal to 2°C*".

However, it is important to recognise that this scenario analysis can be performative, rather than just reflective. The more reliance the industry places on certain scenarios, or target outcomes, the more this can become a self-fulfilling prophecy. This is a particular concern if chosen scenarios lead to delayed action on the basis of unrealistic future developments - an inequitable approach to climate risk management which pushes the risk on to future generations and more vulnerable regions and societies.

We note that the PCRIG includes the following important footnote (p60) but believe this should be given more prominence in the guidance:

> *"The work of the TCFD, and the publication of its recommendations in July 2017, took place before the publication of the Intergovernmental Panel on Climate Change (IPCC)’s special report on Global Warming of 1.5°C in 2018. Since that IPCC report, the focus of the international community has increasingly been on limiting warming to 1.5°C, including in the UK Government’s commitment to reach net zero emissions by 2050, and pension schemes would be well advised to keep this in mind when carrying out scenario analysis."*

Therefore, in the guidance regarding which scenarios trustees should use (section 10.4, p63), we believe that "2°C or lower" does not reflect the full ambition of the Paris Agreement or the UK Government's commitment to be a net zero economy by 2050.

To align with the Storebrand target to be a net-zero asset owner by 2050, as a founding member of the UNEPFI Net-Zero Asset Owner's Alliance[20], we use more ambitious IPCC references, including 1.5°C scenarios from the IPCC 2018 special report, to make assessments across our business.

- **Tools for scenario analysis**

There is currently no robust, industry-standard climate scenario but use of International Energy Agency (IEA) scenarios is prevalent in company assessment and portfolio management. The Paris Agreement Capital Transition Assessment (PACTA) tool, promoted by the PCRIG, makes use of IEA scenarios,[21] as does the Transition Pathway Initiative (TPI). The IEA does not currently present a 1.5°C scenario, representing a significant challenge in targeting Paris-aligned portfolios with these

[20] https://www.unepfi.org/net-zero-alliance/
[21] PACTA tool homepage: https://www.transitionmonitor.com/

tools. The TPI currently uses the IEA 2DS (2 degree aligned) and the IEA B2DS (Beyond 2 degree aligned) scenarios, although neither of these align with the 1.5°C target of the Paris Agreement and the 2DS is not 'Paris-aligned' within the definition of *well below* 2°C, as judged by the Science Based Targets initiative.[22] This challenge was recognised in the recent annual TPI update, when they highlighted the need for more robust scenarios but they noted that the IEA offers the most granular sector-specific information in order to develop a benchmarking tool.[23]

Storebrand has been vocal about the need for more ambitious scenarios from the IEA, in particular the need for a Paris-aligned 1.5°C pathway.[24] In November 2019, following publication of the updated IEA World Energy Outlook report, we signed an investor letter to Fatih Birol, Executive Director of the IEA, calling for a fully transparent Sustainable Development Scenario (SDS) as follows: "*The ambition of the SDS must be increased to present a reasonable probability of reaching net-zero emissions by 2050 (not 2070) and limiting warming to 1.5°C (not 1.8°C). It should include a precautionary approach to negative emissions technologies, and the steps needed to follow that pathway."*

When using tools for scenario analysis it is important to understand their limitations, including which scenarios they use and whether they are plausibly Paris-aligned.

- **Scenario limitations**

Climate models incorporate necessary scientific uncertainty; and the assumptions used, whether related to the remaining carbon budget, the timeframe for the pre-industrial period, the method of temperature measurement and many other inputs, are regularly adjusted due to new findings.

Integrated climate models are extremely sensitive to inputs such as ***discount rates and assumptions about future developments in technology***. We can draw similarities here with pension fund liability modelling. If the pension fund discount rate is too high then we can, perhaps dangerously, assume that we don't need to do anything now – we can rely on future returns to close a funding gap.

When it comes to climate modelling, a high discount rate suggests that we can meet the targets of the Paris Agreement whilst continuing to emit large volumes of CO_2 into the atmosphere for many years.

The models allow this by assuming that Carbon Dioxide Removal (CDR), largely via Carbon Capture and Storage (CCS) technology, alongside other mitigation options depending on the scenario, will be available in the second half of the century at very large capacity and a low price. But this is 'silver-bullet' thinking - although the technology exists, it is unproven at scale and there is very little investment in future capacity. The IPCC[25] is clear on this issue: "*CDR deployed at scale is unproven, and reliance on such technology is a major risk in the ability to limit warming to 1.5°C*."

[22] Science Based Targets. 'Foundations of Science-Based Target Setting', Version 1.0. (April 2019): https://sciencebasedtargets.org/wp-content/uploads/2019/04/foundations-of-SBT-setting.pdf

[23] TPI, Annual State of Transition Summit, (March 2020). Recording available.

[24] https://www.ipe.com/storebrand-pensiondanmark-alecta-sign-mass-letter-to-energy-agency-on-climate/10034621.article

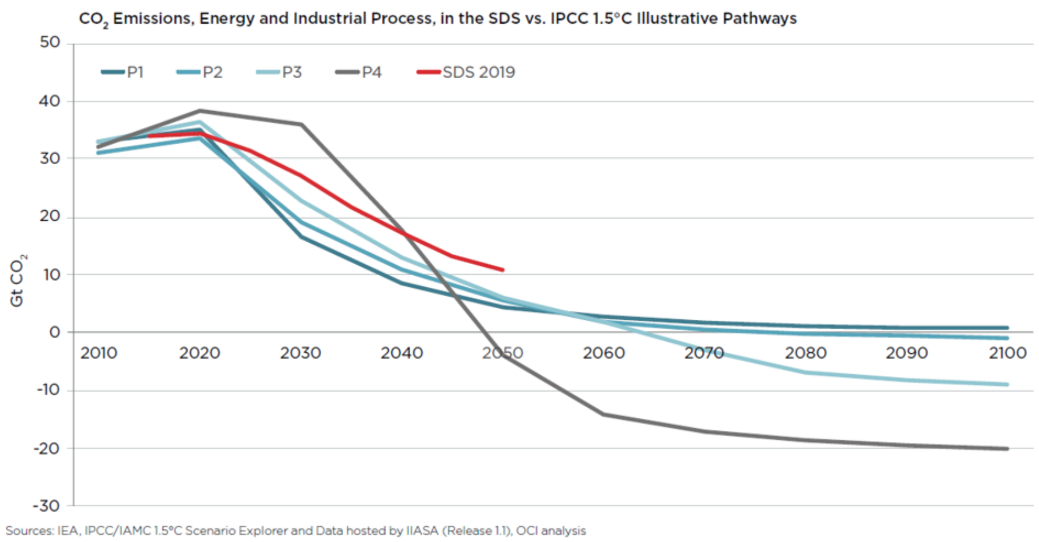
[25] IPCC, Chapter 2: Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development. In*: Global Warming of 1.5°C* (2018): https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_Chapter2_Low_Res.pdf

Recent research demonstrated that high discount rates are used in many climate models, leading to potentially unrealistic assumptions about the future costs of CDR.[26] This could render certain pathways unachievable and discourage near-term real emissions-reductions in favour of reliance on CDR in the second half of the century, limiting our chances of meeting the Paris Agreement targets. The risk of path dependency from overreliance on CCS at massive scale and too high a discount rate is likely to gain more attention in analysis over the coming years.

Another important consideration is the ***timeframe for analysis***. The PCRIG guidance notes that longer term scenarios, beyond 2050, are hard to model as the impacts are highly uncertain. However, we must be aware of assumptions for developments beyond the timeframe of a given scenario in order for that scenario to be plausibly Paris-aligned. For example, the IEA recently updated their World Energy Outlook models. They extended the timeframe for the SDS to 2050, claimed it was "fully aligned with the Paris Agreement"[27] and could reach net zero by 2070. A recent study by Oil Change International[28] provided a comparison with IPCC 1.5°C scenarios and showed that it could only be aligned with the full ambition of the Paris Agreement if it were to rely on extensive CCS deployment, to the magnitude of 15Gt CO_2 beyond its 2050 timeframe.

> *"The IPCC 1.5°C report also cautions that certain scenarios may depend on levels of NETs that are not technically feasible or socially or ecologically sustainable. It includes four illustrative pathways that show different levels of reliance on NETs and discusses the implications for sustainable development: two with low NETs (P1, P2), one with high NETs (P3), and one with very high NETs and a high overshoot of the 1.5°C threshold (P4). By 2050, the SDS's emissions are higher than all four pathways, as shown in the figure below."*[29]

Figure 1[30]



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[26] J. Emmerling *et al*. 'The role of the discount rate for emission pathways and negative emissions' [2019] Environmental Research Letters 14 104008: https://iopscience.iop.org/article/10.1088/1748-9326/ab3cc9/pdf
[27] https://www.iea.org/weo/weomodel/sds/
[28] Still off track: How the International Energy Agency's 2019 outlook continues to undermine global climate goals http://priceofoil.org/2020/04/22/still-off-track-international-energy-agency-2019-outlook-climate/
[29] Oil Change International, Still off track (as above) page 3
[30] Oil Change International (2020) Still off track (as above, footnote 28)

This is of particular concern for the application of net zero target setting. If a net zero target is based on a scenario with a trajectory aligned with significant use of NETs beyond 2050 then the integrity of that target should be questioned.

- **How climate scenarios are used**

The guidance notes that asset owners should report how climate scenarios are used (p72). However, trustees are likely to require more ***guidance on what is a reasonable or appropriate use*** of climate scenarios and tools, given the ongoing developments, need for IEA scenario reform and other limitations described above. For example:

- Scenarios are useful for portfolio insights and strategy development. They can provide guidelines for understanding the alignment of portfolios to certain trajectories. As detailed above, a range of scenarios should be used, including a sufficiently ambitious 1.5°C scenario and the assumptions underlying those scenarios should be well understood.
- Scenarios can be useful for engaging with portfolio companies on their preparedness for the transition to a low carbon economy. However, investors should scrutinise the integrity of claims to 'net zero targets' on the basis of scenarios which are not genuinely Paris-aligned or which have pathways to 2050 that would rely on huge CCS capacity beyond that point.
- We believe trustees should be wary of funds and indices that use scenarios (such as IEA) for portfolio construction as we don't believe they are robust enough for this purpose and can lock in additional risks. Given the complexity of climate science and ongoing scenario development work, as well as the issue of missing Scope 3 emissions data, it is potentially misleading to construct a portfolio based on a single scenario or tool. More transparent metrics are required for climate-aware portfolio construction, as outlined in Q18 below.

A more rounded assessment of climate-risk for portfolio construction can be achieved by incorporating research dedicated to highly polluting sectors, including agriculture and energy, such as Carbon Tracker's Breaking the Habit[31] and using individual, transparent portfolio construction metrics (examples provided in Q18 below) that can be measured and reported to clients.

- **Legal requirements**

The PCRIG notes that the Government may use its new powers to be prescriptive about the need for pension funds to undertake scenario analysis, as well as prescribe which scenarios are to be used. We believe this is an area which requires flexibility with regards to legislation due to the lack of robust industry standard scenarios and measurement tools.

- **Approaches and updating**

We agree with the guidance that investors should begin with a focus on high risk sectors and more measureable asset classes where climate reporting is more mature and accessible, such as equities and corporate bonds and expand the analysis over time as data improves. We would urge trustees to focus on climate solutions opportunities as well as climate negative and problematic industries.

We also agree with the need for regular review due to ongoing rapid developments in scenario analysis.

[31] Carbon Tracker, 'Breaking the Habit – Why none of the large oil companies are "Paris-aligned", and what they need to do to get there' (13 September 2019): https://carbontracker.org/reports/breaking-the-habit/

18. Part III - Please provide any comments on "Metrics and Targets"
Answer

Improving disclosures with consistent metrics is vital to ensure greater transparency of climate risk in portfolios. We are supportive of the TCFD framework and regularly report climate-related metrics to clients, as well as in our own annual report.

The PCRIG notes that the government may use its new powers to legislate for prescribed metrics and targets. We agree that certain metrics should be mandated but, in order for investors to report those metrics, consistent disclosures are required from the underlying companies in which they invest.

When it comes to portfolio management, there are some issues to be aware of when using climate-related portfolio data, which we have outlined below.

In particular, we note that the guidance suggests trustees consider replacing market cap indices with new low-carbon indices.

The success of a climate-aware investment strategy is contingent upon access to high quality data, along with an understanding of where the data gaps lie. This is particularly true of a systematically managed portfolio, where reliance on limited emissions data can lead to unintended consequences in portfolio construction, such as hidden climate risks and other market-relative risks such as sector or country biases. Given the array of climate-themed funds and indices available, swapping a market-capitalisation-weighted equity index for a low-carbon solution is an active choice requiring scrutiny to avoid greenwashing and unintended risks.

Data and metrics are rapidly improving, allowing for increasingly effective systematic inclusion of ESG criteria in portfolio construction. However, indices are constructed with a static methodology and often only updated on an annual basis. Regular oversight of data inputs and portfolio construction is required to ensure climate-related risks are not merely disguised or replaced with alternative risks. Choosing a new 'low-carbon' index to track should not be viewed as a passive decision. For example, a 2019 report by InfluenceMap exposed significant failings in the £18bn climate-themed fund market, with some popular 'low-carbon' funds maintaining high fossil fuel intensity and even investing in thermal coal.[32] Among those with the highest anti-climate exposures, was a 'low-carbon' fund tracking the MSCI Low Carbon Target Index, which was the best-selling fund in the UK market in early 2020, due to large inflows from the UK LGPS sector.[33]

Carbon footprinting

Carbon footprinting does not yet provide a holistic view of climate risk in a portfolio. Carbon emissions data is considered relatively sound for direct emissions (Scope 1 and 2); yet much of the data used for ratings and optimisation remains estimated, particularly Scope 3 which captures the use of a company's products, also known as lifecycle emissions.

Systematically constructing portfolios based on reported carbon emissions, without scrutiny of data gaps or using broader climate-related inputs, can lead to perverse outcomes and unintended risks.

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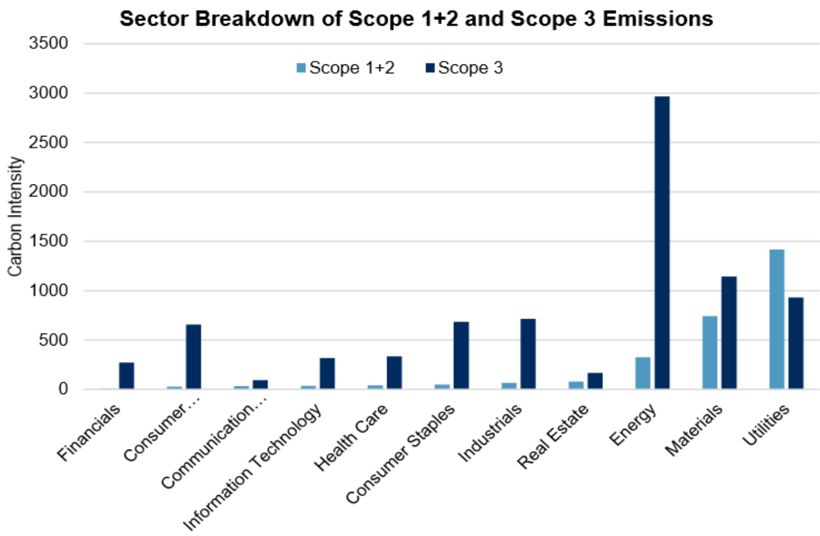
[32] InfluenceMap, Climate Funds and Fossil Fuels (2019): https://influencemap.org/report/Climate-Funds-and-Fossil-Fuels-8f2c813ed814fe5b1eef61b48497b592

[33] 'Low-carbon fund is UK best seller in January', *Financial Times* (21 February 2020): https://www.ft.com/content/9dcdfecb-0446-4c06-8021-b80bfd7ffb6d?shareType=nongift

Green opportunities can be penalised relative to dirty industries, for example a lack of full lifecycle emissions data could lead to a solar panel producer being judged equally to a car manufacturer.

Scope 3 emissions are notoriously difficult for companies to report but their impact is particularly significant in certain industries and sectors. Figure 2 demonstrates that the Scope 1+2 emissions from energy are less than materials and utilities, but energy Scope 3 emissions dwarf all other categories.[34] This has implications for creating indices optimised on Scope 1 and 2 emissions data and demonstrates why some 'low-carbon' funds have oil and gas majors among their largest holdings.

Figure 2[35]



Source: S&P Dow Jones Indices LLC. Data as of December 2019. Chart is provided for illustrative purposes.

A failure to consider entire value chains can lead to the inefficient reallocation of carbon exposures, hiding rather than effectively reducing risks.

An example of how this affects risk exposures in practice is provided by looking at the aforementioned highest-selling low-carbon index. Although the MSCI Low Carbon Target index is underweight the energy sector overall, optimising holdings based on Scope 1 and 2 emissions and considering fossil fuel reserves, closer inspection of its underlying holdings reveals unexpected results. Despite being advertised as 'low-carbon', the index's failure to consider lifecycle emissions leads to overweight positions in fossil fuel storage, transportation, refining and marketing. A pertinent example is a land-leasing company, assessed as low-carbon on account of available emissions data but whose land is used for oil production and its index position is 19x larger than that in the standard MSCI World index. These are areas of the energy sector which may be even more exposed to climate transition risk.

To limit climate risk, we must consider full lifecycle emissions across the value chain to accurately assess which companies and industries are most exposed to the fossil fuel economy. Other

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[34] 'Conceptualizing a Paris-Aligned Climate Index for the Eurozone', S&PDJI Research (January 2020) Note these are estimated Scope 3 emissions calculated by Trucost for the Eurozone only
[35] Note these are estimated Scope 3 emissions calculated by Trucost for the Eurozone only, source S&PDJI Research

industries with significant exposure, such as agriculture, are also misrepresented by only applying Scope 1 and 2 data.[36]

Scope 3 GHG disclosures are only required in the TCFD recommendations 'if appropriate'. This is an area which is currently preventing effective market pricing and allocation with regards to climate related risks and opportunities.

Our analysis highlights that Scope 3 disclosures are material for the energy sector. Scope 3 emissions are responsible for 85% of oil and gas industry emissions.[37] Therefore disclosures and emissions reduction targets for companies in this sector should incorporate Scope 3 emissions as standard.

Further, alignment with the Paris Agreement requires a more holistic view. Climate change risk may be especially relevant to sectors with large greenhouse gas emissions such as coal mining, oil and gas production and electricity production from fossil fuels, but land use change also represents meaningful climate-related risks to investors. Attention must be directed to activities such as agriculture and those involving significant clearing of forested land, as well as the energy sector.

Another issue to be aware of is potential biases in ESG data that is used for portfolio construction purposes, such as factor biases or size biases, that may lead to unintended consequences and can have a financial impact.

Climate solutions

We believe that Paris-alignment extends to investing in climate solutions, not only avoiding those polluting companies and industries that are clearly not aligned. The market-cap global equity index is not fit for purpose from an ESG or climate risk perspective; the MSCI World Index is judged to be aligned with 5°C of global warming.[38] New low-carbon indices which merely tilt their holdings around this benchmark, which is built on the fossil fuel economy of the past rather than the future, cannot deliver successful Paris-alignment.

Energy in a Paris-aligned future will come from clean sources. Therefore, we believe it is important to incorporate a diversified portfolio of climate solutions companies, many of which are smaller businesses that are not in the global equity benchmark, but in a diversified and risk managed way. Further, carbon footprinting analysis is less helpful in a solutions portfolio - it can penalise companies on the basis of their scope 1 and 2 emissions when those companies have an overall climate-positive effect if lifecycle emissions are considered. It is important to note that low-carbon indices are punishing climate solutions companies for this reason and this is an inconsistency which should be recognised and managed in a climate-aware portfolio to replace passive equities.

Target setting

We have highlighted above some inconsistencies that should be considered when setting targets related to portfolio carbon footprints.

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[36] GRAIN, 'Emissions impossible: How big meat and dairy are heating up the planet' (18 July 2018): https://www.grain.org/article/entries/5976-emissions-impossible-how-big-meat-and-dairy-are-heating-up-the-planet
[37] Carbon Tracker (2020): https://carbontracker.org/shells-revised-emissions-targets-higher-ambition-but-still-flawed/
[38] https://www.mirova.com/sites/default/files/2019-05/EstimatingPortfolioCoherenceWithClimateScenarios2018_0.pdf

The PCRIG guidance highlights the recent net zero and Paris alignment claims being made by companies. We commend ambitious targets and we have our own corporate target to be net zero by 2050. We would like to highlight some important areas for consideration when assessing net zero targets:

- **Carbon intensity and coverage**

The global average temperature will continue to rise until emissions stop, climate change is a cumulative problem. The majority of recent net zero ambitions announced by oil and gas companies are based on measures of carbon intensity, not absolute emissions reductions. However, this will not necessarily lead to curbed emissions, for example Total has been reducing carbon intensity but growing emissions for many years.[39]

Net zero commitments often only cover portions of companies' businesses, for example:

- Companies' own operations, not the lifecycle emissions of their product (Scope 3) which are responsible for 85% of oil and gas industry emissions.[40]
- Only certain regions e.g. the Total target only covers business in Europe, where net zero will be a regional necessity due to government targets.[41] However, 66% of hydrocarbon production by Total is outside Europe and strong growth is projected in these regions.[42]

Some oil and gas companies commit to absolute limits on parts of their businesses but none makes a global, business-wide commitment to stop emissions or production.[43]

Due to the high carbon intensity of coal and tar sands, we consider investments in companies that earn a significant proportion of revenues from these products to be unsustainable, along with unsustainable palm oil producers who are similarly excluded across our whole business. However, we recognise that ***absolute measures are crucial to climate change*** and so our coal assessment is not purely on a revenue basis but also on an absolute measure of the volume of coal produced or energy generated; companies are excluded if they produce over 20 million tons of coal annually or operate more than 10,000 MW of coal-fired capacity. Storebrand will also exclude companies that have new coal fired power plants with over 1,000MW of capacity under construction. More information about our coal exclusion criteria, and other principles related to environmental damage is available on our website.[44]

- **Capital expenditure, disclosures on offsets and lobbying activity**

The Transition Pathway Initiative (TPI) recently analysed the new emissions ambitions of European integrated oil and gas companies.[45] They highlighted that the majority of targets are set on a net basis but noted the detail on how this will be achieved is largely absent.

For companies that intend to reduce their emissions intensity through diversification into low-carbon alternatives, further disclosure on these decarbonisation plans is required. For example,

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[39] TPI (2020): https://www.transitionpathwayinitiative.org/tpi/publications/58.pdf?type=Publication
[40] Carbon Tracker (2020): https://carbontracker.org/shells-revised-emissions-targets-higher-ambition-but-still-flawed/
[41] ShareAction (2020): https://shareaction.org/analysis-of-totals-net-zero-ambition/
[42] Total (2019): http://www.annualreports.co.uk/HostedData/AnnualReports/PDF/NYSE_TOT_2019.pdf
[43] Carbon Tracker (2020): as above
[44] https://www.storebrand.no/en/asset-management/sustainable-investments/exclusions/improved-coal-criteria
[45] TPI (2020): https://www.transitionpathwayinitiative.org/tpi/publications/58.pdf?type=Publication

details on the projected growth in energy supplied by biofuels, hydrogen, wind and solar should be laid out.[46] Current targets are merely promises for the future and the capital expenditure of oil and gas companies often tells a different story, as outlined by Carbon Tracker.[47] In 2019, the oil and gas industry allocated 99.2% of its capital expenditure to fossil fuel development, compared with 0.76% on renewables and 0.04% on CCS.[48]

For a net zero target to have real integrity it should be developed against an ambitious emissions reduction pathway that is not heavily technology reliant beyond 2050. Further companies should disclose how they intend to use offsets to account for the following risks:[49]

- The credibility of offsets bought in the unregulated, voluntary markets
- Price risk from offset market growth and increased regulation

Finally, we believe ***corporate lobbying activity*** should be monitored to ensure companies' actions are consistent with their climate goals and targets. Investors should not tolerate lobbying activity that is contradictory to Paris Agreement goals. We expect companies to support public policy measures that aim to mitigate climate change risks in all geographic regions in which they are active, this should also extend to third party organisations and trade bodies that companies are members of or providing funding to.

- **Voting and engagement**

We agree with the guidance that trustees should focus on the voting and engagement activity of their managers. Managers with a genuine focus on climate change as a material financial risk for their clients will vote accordingly across their business, not only on SRI/ESG themed funds.

Metrics for climate-aware portfolio construction

We have provided below, as a practical example, the metrics which we use to construct a climate-aware equity portfolio to replace passive equities. This single-metric data is easier to interpret than Paris-compatibility-tests, has close to zero model dependency and is far more transparent for portfolio construction. These metrics allow investors to hold asset managers to account on the performance of a climate-aware strategy and its alignment with the low carbon transition.

Scenario alignment tests can offer insights for reporting and measurement, but the uncertainties and assumptions embedded in those tools and pathways must be recognised and understood, particularly when it comes to portfolio construction.

Metrics for climate-aware portfolio construction:

- Asset manager assessment:
    - Business strategy – alignment with Paris goals
    - Engagement and voting activity related to climate issues

[46] TPI (2020): https://www.transitionpathwayinitiative.org/tpi/publications/58.pdf?type=Publication
[47] Carbon Tracker, 'Breaking the Habit – Why none of the large oil companies are "Paris-aligned", and what they need to do to get there' (13 September 2019): https://carbontracker.org/reports/breaking-the-habit/
[48] IEA and Carbon Brief
[49] TPI Annual State of Transition Report 2020 https://www.transitionpathwayinitiative.org/tpi/publications/50.pdf?type=Publication

- Portfolio construction:
  - % invested in oil & gas
    - *For higher confidence in Paris-alignment, our systematically managed climate-aware strategy is fossil-free*
  - % invested in various climate solutions (e.g. renewables, energy efficiency, low-carbon transport)
    - *For higher confidence in Paris-alignment, our climate-aware strategy invests up to 10% of the portfolio in climate solution companies (majority off benchmark)*
  - Carbon intensity scope 1 & 2
  - ESG data vendor ratings and information, such as:
    - Sustainalytics ESG Risk Rating
    - Sustainalytics Carbon Risk
    - Equileap gender data
    - Trucost carbon data
    - Carbon Tracker energy sector analysis
    - InfluenceMap
    - FTSE Green Revenues

19. Part III - Please provide any comments on the appendices
Answer

N/A

20. Please provide any comments on the Quick start guide
Answer
N/A

21. Case Studies - We would welcome any case studies on TCFD-aligned disclosure and integration of climate-related risk assessment and management into decision making and reporting. Please provide an overview of any case studies you wish to submit below.
Answer

We would like to submit our own Storebrand Annual Report, 2019 (attached), as an example of TCFD aligned reporting.

SKAGEN Funds' London Office is the distributor for Storebrand products in the UK, located in 22a St. James's Square, London SW1Y 4JH, United Kingdom. We can be reached at the contact details provided below:

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Except otherwise stated, the source of all information is STOREBRAND AS as at end March 2020.

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