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Marketing Material

WHY ESG REPORTING REQUIRES SCIENTIFIC VERIFICATION

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IN A NUTSHELL

_ A credible set of sustainability reporting standards need to be science-based, incorporate double materiality, and go beyond simply climate-related financial risks to broader sustainability issues such as inequality, human rights, water risk and biodiversity loss
_ In our view, the Science Based Targets Initiative (SBTi) provides the optimal blend of accounting for financial analysis, backed by scientific verification
_ The current IFRS proposals for sustainability reporting falls short of current requirements as it is based on single financial materiality and is currently limited to climate-related risks
_ Greater coordination with other initiatives such as the EU taxonomy, the Sustainable Finance Disclosure Regulation and across regions is necessary
_ That 57% of asset managers responding to IFRS' consultation recommended single, financial materiality reporting is a concern. This would perpetuate the view of the financial industry not being in tune with climate-related issues

1 / Summary

In March 2021, we published "Making sense of a chaotic ESG reporting landscape"[1], providing an overview of the major reporting initiatives, key milestones and the countries moving towards mandatory climate-related reporting. This report provides our perspective on how reporting frameworks need to evolve particularly in an environment where financial regulators around the world are increasingly focusing on the need for sustainability reporting.

Notably, the European Commission (EC) has taken a leading role in relation to sustainable development and sustainable finance policies[2]. International fora such as the G-20, the Financial Stability Board and the International Platform on Sustainable Finance as well as important jurisdictions such as the United States, are also adopting a proactive approach in this policy area.

[1] DWS March 2021 https://www.dws.com/en-gb/insights/global-research-institute/making-sense-of-a-chaotic-esg-reporting-landscape/

[2] European Financial Reporting Advisory Group (February 2021). Final Report on Proposals for a relevant and dynamic EU sustainability reporting standard-setting

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For example, in March 2021, the Securities and Exchange Commission (SEC) in the United States initiated a public consultation[3] towards facilitating the disclosure of consistent, comparable, and reliable information on sustainability reporting and specifically as it relates to climate change. In addition, the International Financial Reporting Standards Foundation (IFRS), the non-profit accounting standards board, recently provided an update on its public consultation[4] towards the development and maintenance of a global set of comparable and consistent sustainability reporting standards.

The more active role of governments and standard setters reflects the need to:

(i) reduce the costs associated with sustainability reporting
(ii) meet the growing demand for sustainability information particularly from investors
(iii) provide greater clarity and certainty as to what sustainability information to report
(iv) promote a global standard

Within this context of growing interest in sustainability reporting, the following aspects require greater scrutiny, especially from the standpoint of impact investing and double materiality, which refers to not just how the world affects a company, but also how the operations of a company affect the world:

a) While there is no dearth of existing frameworks for sustainability reporting, accountants and standard setters typically lack the science background to fully assess ESG risks. This is also true of financial analysts as well. Hence, to build a credible and robust set of sustainability reporting standards will require a deeper involvement of the scientific community

b) When it comes to sustainability reporting focused on climate change, this will require scientific ratification, because the translation of climate risk into financial risk is far from optimal. There is also a significant time scale mismatch between single materiality and double materiality, which makes any sustainability reporting framework without double materiality half-baked

This paper delves into these issues. Our main conclusion is that the concept of accounting frameworks for sustainability reporting need to be science-based. Without incorporating science into measurement, asset managers and asset owners will continue to lack the technical expertise to assess either climate risks and opportunities or the impact their investments have on society.

[3] U.S. Securities and Exchange Commission (March 15, 2021). Public Input Welcomed on Climate Change Disclosures
[4] IFRS (March 08, 2021). IFRS Foundation Trustees announce strategic direction and further steps based on feedback to sustainability reporting consultation

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No dearth of existing accounting frameworks for sustainability reporting

Momentum for sustainability reporting has been growing in many jurisdictions and many frameworks, standards and benchmarks have been developed to address this emerging demand[5]. In a recent DWS's report[6] "Making sense of a chaotic ESG reporting landscape" we covered these in detail, and concluded that there is an urgent need for convergence in sustainability reporting towards one simple globally accepted reporting standard.

Although a variety of sustainability frameworks and standards already exists, Accounting Boards have been noticeably absent from the sustainability reporting debate so far. While sustainability reporting can call for enhanced greenhouse gases (GHG) emission disclosures, it typically takes several decades of increasing GHG before the forced response is large enough to separate from the interlaced contribution of natural climate variability[7]. This makes predictions of how increasing GHG emissions affects climate on time horizons of a decade or so very difficult, not least for the accountants/standard setters who simply do not possess the requisite skillset required. Within this context, there is a need for greater participation and guidance from the scientific community.

Time Dilation – Financial Investors vs Science

In physics and relativity, time dilation is the difference in the elapsed time as measured by two clocks. For readers who wonder what is the relevance of such a technical scientific concept in a paper on sustainability reporting, will perhaps better appreciate the key calling for this paper namely that sustainability reporting needs to bring science into consideration. Time dilation in the context of this paper is primarily referring to the material time scale mismatch between accounting for financial investors and science.

This is especially true when it comes to sustainability reporting focused primarily on climate change. As was highlighted in a recently published seminal paper in Nature Climate Change, "The rules by which climate science can be used appropriately to inform assessments of how climate change will impact financial risk, have not yet been developed" the issue is that climate change can be best forecasted over the long-term (2050 onwards), but financial investors primarily need information about the next 30 years. To close the gap, sustainability reporting need to be scientifically verified.

For many types of financial analysis, information about climate change over the coming decades (2020-2050) has more tangible value[8].

_ For example, banks commonly issue residential mortgages that mature in 25 to 40 years that can remain with the issuer for their duration, creating incentives for banks to understand their credit risks over that period.
_ Pension funds consider their portfolio's prospects over similar lengths of time, as pension beneficiaries mature from early workforce participants to retirees, and also typically allocate some funds towards government bonds, some of which have maturities of several decades.
_ Investors in illiquid fixed assets, such as commercial real estate and infrastructure, may also use this timescale when considering climate risks to their existing or prospective holdings.
_ In addition, investors often require information to identify climate risks in debt issued by sovereign, semi-sovereign (states) and municipal governments.

However, there are multiple uncertainties in climate modelling and financial modelling on climate risk for the next one to two decades. The deployment of climate change information in activities that require more detailed spatial information for the next one to two decades therefore requires a refined approach, because the information needed cannot be derived robustly from existing climate models. As a result, the translation of climate risk into financial risk is far from optimal.

[5] KPMG (October 08, 2020). New standard setter for sustainability reporting?

[6] DWS Research Institute (March 2021). Making sense of a chaotic ESG reporting landscape. https://www.dws.com/insights/global-research-institute/making-sense-of-a-chaotic-esg-reporting-landscape/

[7] Nature Climate Change (February 2021). Business risk and the emergence of climate analytics. This paper provides an excellent assessment of the demands by the business and finance community for reliable climate information, and the potential and limitations of such information in the context of what climate models can and cannot currently provide.

[8] Nature Climate Change (February 2021). Business risk and the emergence of climate analytics

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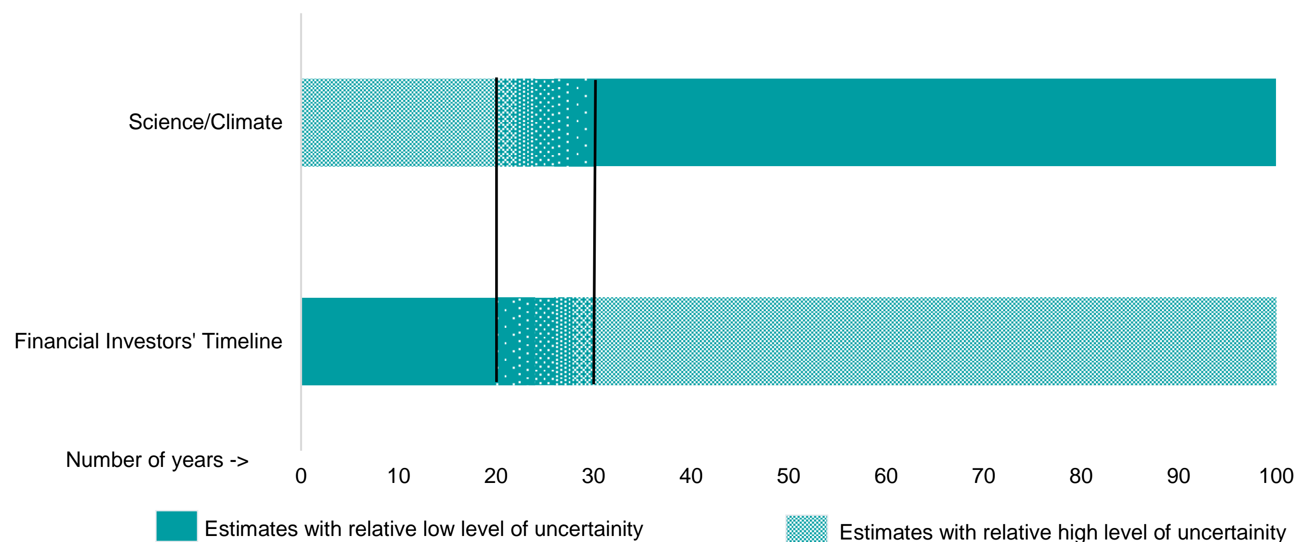
FIGURE 1: TIME SCALE MISMATCH BETWEEN ACCOUNTING FOR FINANCIAL INVESTORS AND SCIENCE



Source: DWS Research Institute,

Where the shoe pinches – single materiality of sustainability reporting

The significant time-scale mismatch makes single materiality of sustainability reporting appear half-baked. To understand this, we look at the example of the International Maritime Organization (IMO) and the International Civil Aviation Organization (ICAO) in the context of the Kyoto Protocol.

The 1997 Kyoto Protocol marked the international community's attempt to mitigate anthropogenic GHG emissions. The Kyoto Protocol called for limiting and reducing emissions of greenhouse gas emissions from aviation and marine bunker fuels, working through the ICAO and the IMO, respectively (Article 2, paragraph 2). However, both the industry bodies received heavy criticism for taking little or no action towards emission reduction. In a 2020 report titled "Beyond good intentions, to urgent action", former UNFCCC leaders made a pertinent observation highlighting "One clear example of the weakness of action relates to the issue of the significant emissions from international aviation and shipping. The slow and half-hearted responses of governments and industry acting through their representatives in ICAO and the IMO, despite these organizations being specifically mentioned in the Kyoto Protocol, is shameful." However, this issue is not limited to these two industries. The traditional approach to corporate reporting and the drive towards sheer profit maximisation has led to widespread environmental damage, human rights abuses and greater inequalities. And it would be naive to assume that this menace will go away with the adoption of sustainability reporting. There is significant time-scale mismatch between single materiality and double materiality, which makes any sustainability reporting framework without double materiality flawed. This is because:

- A company's business model can have positive and negative impacts on stakeholders, such as customers and employees, and on natural resources. (Inside-out)
- These stakeholders, along with the external environment in which the company operates, can also positively or negatively affect the company's business model and therefore create or erode its enterprise value and financial returns to providers of financial capital[9]. (Outside-in)

[9] CDP, CDSB, GRI, IR, SASB, WEF, Deloitte (December, 2020). Reporting on enterprise value Illustrated with a prototype climate-related financial disclosure standard

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A single materiality of sustainability reporting will require companies to only disclose outside-in factors because such an approach having a fair return on investments. Hence so long as the negative impact of inside-out factors do not translate into material impact on return on investments, it will remain outside the scope of sustainability reporting.

Understanding the context of Single and Double Materiality within the context of time-scale mismatch

The green, underwater meadows of Posidonia seagrass that surround the Balearic Islands in the Mediterranean are one of the world's most powerful, natural defences against climate change. A hectare of this ancient, delicate plant can soak up 15 times more carbon dioxide every year than a similar sized piece of the Amazon rainforest. This vivid green carpet that extends under the seas in the Balearics faces an ongoing threat from boats dropping their anchors which crush, tear and destroy the meadows[10].

- Inside-out factors - One study showed that between 2008 and 2012, Posidonia meadows in Formentera were reduced by 44% because of the impact of anchoring. Another threat comes from too many nutrients in the waters, caused by effluent released from water treatment sites across the islands. But perhaps the biggest and most difficult challenge for Posidonia is climate change[11].
- Outside-in factors - The plant also grows extremely slowly. The damage caused by one yacht's anchor in a single day would take almost 1,000 years to restore. The question is, how do we measure the cost of this environmental damage when the timeline involved is close to 1,000 years? While the environmental impact is material, the financial impact measurement may prove difficult.

Net-net, there is significant time scale mismatch between single materiality (which focuses only on outside-in) and double materiality (takes into account both outside-in and inside-out), which makes any sustainability reporting framework without double materiality sub-optimal.

Examples of existing accounting standards focusing on the single materiality of sustainability reporting

While there are multiple examples of existing accounting standards which adopt single materiality of sustainability reporting[12], it is important to focus on IFRS. Recently, IFRS Foundation Trustees announced proposals for the future course of sustainability reporting which will also be based on feedback during the consultation process. This is significant because it marks the start of a move towards global convergence in sustainability reporting, which will hopefully herald greater consistency, relevance and transparency.

However, it is disappointing to note that IFRS is only set to focus on single materiality, which is information that is material to the decisions of investors, lenders and other creditors. Further, the scope of the proposed sustainability reporting standards is not ambitious enough, as it has been restricted to solely climate-related matters[13]. Focusing on climate change alone in 2021 is akin to looking in the mirror and missing many other essential and inter-related issues that investors face in the coming decade, such as inequality, human rights, water risk, and biodiversity loss. Such issues are already driving companies' capital decisions and flows into ESG funds, but where is the proper associated disclosure?

DWS Research team carried out a study of responses to the IFRS's public consultation to understand the feedback of various stakeholders, especially on the point of double materiality and the scope of sustainability reporting. Out of the total 577 responses, our study covered 156[14] responses, split across corporates (~40% of the 156 responses), asset managers (~30%) and ESG organisations (~30%). The focus of our analysis was to examine the responses, especially within the context of double materiality and whether the scope of sustainability reporting should extend beyond climate-related matters only.

[10] UNESCO Marine World Heritage (2021). Custodians of the globe's blue carbon assets

[11] BBC News (March, 2021). Climate change: 'Forever plant' seagrass faces uncertain future

[12] DWS Research Institute (March 2021). Making sense of a chaotic ESG reporting landscape. https://www.dws.com/insights/global-research-institute/making-sense-of-a-chaotic-esg-reporting-landscape/

[13] IFRS (March 08, 2021). IFRS Foundation Trustees announce strategic direction and further steps based on feedback to sustainability reporting consultation

[14] The study tried to look at the responses from Institutions only while excluding individual responses from the analysis

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Disappointingly, the majority chose the path of least resistance, such that:

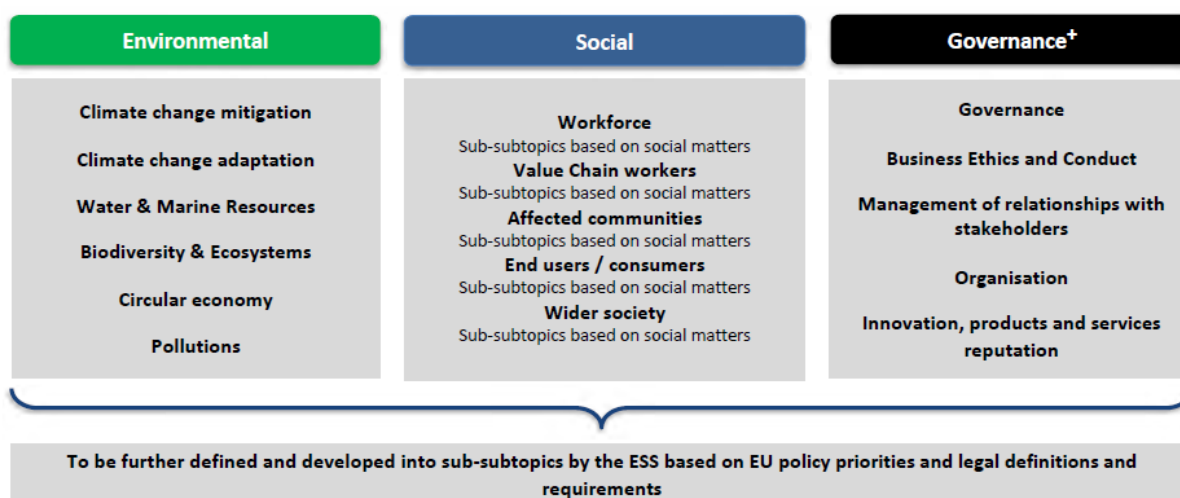
- Close to 50% of the IFRS consultation paper respondents covered in our analysis accepted that a single materiality approach was an acceptable start. Slicing the data even further to look at only Asset Managers, a slightly higher proportion (~57%) of the respondents accepted single materiality. This would seem to call into question how serious the asset management community is when it comes to impact investments!
- The IFRS consultation paper respondents were broadly split on the proposal of a climate first versus an overarching framework covering broader areas of sustainability reporting.

In their response to the IFRS public consultation, the authors of this paper emphatically argued against the concept of single materiality as well as simply focusing on a climate-first approach[15]. Like us, the requirement for double materiality and to widen the scope for sustainability reporting beyond climate-related matters also found support from European Financial Reporting Advisory Group (EFRAG)[16]. In its response to a mandate from the EC, including a request for technical advice dated 25 June 2020, EFRAG noted:

- The concept of double materiality is key to sustainability reporting standard-setting in the EU. The standard-setter should therefore adopt conceptual guidelines addressing the definition and implementation of the concept of materiality in each of its two dimensions. Double materiality requires that both impact materiality and financial materiality perspectives be applied in their own right without ignoring their interactions.

Furthermore, the EFRAG report also covered broader scope for defining ESG beyond merely climate-related matters. Other advocates of double materiality include UNEP FI.

FIGURE 2: EFRAG'S PROPOSAL FOR A DETAILED STRUCTURE FOR SUSTAINABILITY REPORTING



Source: European Financial Reporting Advisory Group (February 2021). Final Report on Proposals for a relevant and dynamic EU sustainability reporting standard-setting.

[15] DWS Research Institute (December 2020). Consultation Paper on Sustainability Reporting

[16] European Financial Reporting Advisory Group (February 2021). Final Report on Proposals for a relevant and dynamic EU sustainability reporting standard-setting

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Science Based Targets Initiative (SBTi) – Step in the right direction albeit with caveats

The Science Based Targets Initiative (SBTi) appears to provide the optimal blend of accounting for financial analysis, backed by scientific ratification. SBTi now needs to establish a conflicts of interest policy and operational practices, which separates the creation of science-based targets methodologies from target auditing or validation. DWS's report[17] "Transformational Framework for water risk" published in November 2020 concluded that a critical priority is the need to address conflicts of interest in the area of responsible investing. The separation of powers in government is a key concept dating back to Aristotle[18]. An example of where this works in practise can be found in Credit Rating Agencies (CRAs)[19] which are regulated to ensure a strict separation of power and to define roles and duties which protect all parties involved, as shown in Figure 3.

CRAs have to deal with conflicts of interest all the time and at many levels. Regulators would not penalize a CRA for having a conflict of interest, but, would penalise a CRA for not identifying and managing conflicts on an ongoing basis. Within a CRA, the teams involved in building a financial tool, model or rating are different from the team auditing the development of tools/models/ratings and these are different from the teams using the tools/model/ratings. The teams are different and have different reporting lines to guarantee their independence. We think that this concept needs to expand too many parts of the responsible investing world, including the work of the climate focused Science Based Targets Initiative and the Science Based Targets Network which focuses on developing broader ecosystem based target methodologies, for example not just relating to climate but also water and nature among others. This means that there should be independence between the teams developing science-based methodologies and teams that validate companies' targets using these methods.

In addition, we recommend the commissioning of independent assessments of the pros and cons of different SBTi methodologies, to expand and follow-up on the findings of Bjørn et al. 2021. As per the formal complaint by one of the members of the SBTi's Technical Advisory Group, the findings of Bjørn et al raise concerns relating to governance within the SBTi framework and specifically the potential of conflicts of interest[20].

In conclusion, the past few years has seen an acceleration in initiatives to address the deficiencies in sustainability disclosure and reporting. A new Democratic administration n the United States has simply added to this momentum. Naturally this means that in order to facilitate the creation of a globally accepted sustainability standard requires coordination. Yet this coordination still appears disjointed. For examples, in May 2020 the European Commission opened a consultation on the next step of the fiduciary duty journey.

This is examining the merits in adapting rules on fiduciary duty that directly require investors to consider and integrate adverse aspects of investment decisions on sustainability. Yet, when it comes to company disclosure some standard setters are starting from the principle of single materiality. We will soon know the approach of IFRS since this September the IFRS Foundation will provide its proposal, with the possibility of announcing the creation of a sustainability standards board at the COP26 meeting in November. We hope double materiality will eventually be given the attention it deserves so we can move a step closer to investors having a more complete picture of the risks and opportunities with information they can trust.

[17] DWS Research Institute (November 2020). A transformational framework for water risk. https://www.dws.com/insights/global-research-institute/a-transformational-framework-for-water-risk/

[18] Aristotle (384-322 BC) in his book "The Politics" stated that: "There are three elements in each constitution in respect of which every serious lawgiver must look for what is advantageous to it; of these are well arranged, the constitution is bound to be well arranged, and the differences in constitutions are bound to correspond to the differences between each of these elements. The three are, first, the deliberative, which discusses everything of common importance; second, the official; and third the judicial element."

[19] We wish to acknowledge the useful input from our DWS colleague Fatima Hadj.

[20] Baue, B. 15 February 2021 Formal Complaint: Science Based Targets Conflicts of Interest

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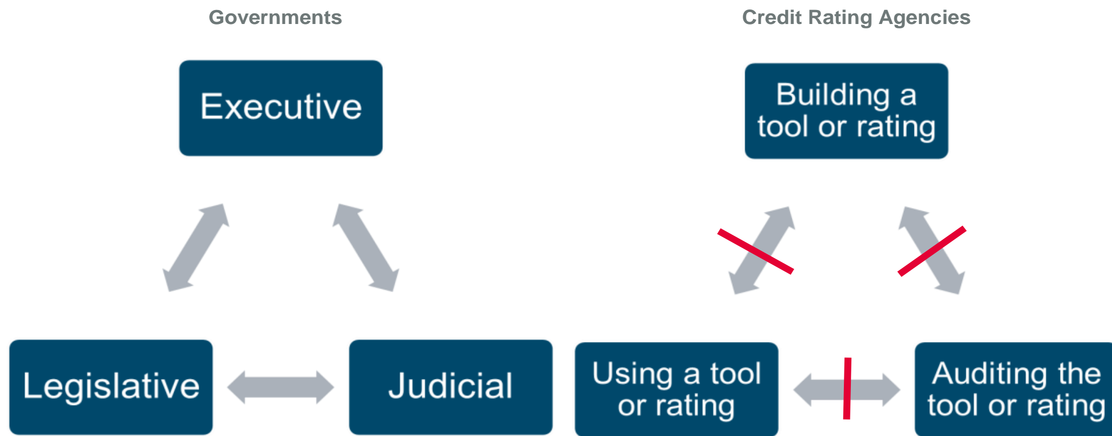
FIGURE 3: SEPARATION OF ROLES AND RESPONSIBILITIES IN GOVERNMENTS AND CREDIT RATING AGENCIES



Source: DWS Investment UK Ltd, March 2021. Red line indicates the existence of separation of teams and governance to manage conflicts of interest.

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