CLIMATE CHANGE, FINANCIAL RISKS AND REPORTING: DISTANT HORIZONS?

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https://doi.org/10.53479/33797

The authors belong to the Directorate General Financial Stability, Regulation and Resolution. They are grateful for the comments received from Rebeca Anguren and from an anonymous referee. Contact Form for comments.

This article is the sole responsibility of the authors and does not necessarily reflect the position of the Banco de España or of the Eurosystem.

Abstract

The notes to financial statements and, in the case of credit institutions, Pillar 3 reports complete and supplement information contained in the balance sheet and income statement. This helps to provide a better estimate of the amount and timing of expected cash flows, and of the associated risks. The climate change challenge introduces new factors that affect the materialisation of those risks, and standards are being developed, from different vantage points and by various organisations, aiming to specify the type of public information – in addition to the notes to financial statements and Pillar 3 reports – that could provide a better picture of these factors. This article presents an overview of the initiatives under way to address the *disclosure* of climate-related financial risks, focusing on the main international work streams promoted by the International Financial Reporting Standards Foundation, the European Financial Reporting Advisory Group and the US Securities and Exchange Commission. It sets out the context and rationale behind the proposals, their current status and their main content. It also discusses the mechanisms being considered to make the initiatives interoperable and to link this type of information with that provided in the financial statements, in order to prevent fragmentation that could affect financial stability.

Keywords: climate change, disclosure, financial reporting, IFRS, ISSB.

1 The importance of transparency in light of the climate change challenge

In 1832, the British economist William Forster Lloyd introduced the so-called "tragedy of the commons" (also referred to as the "commons dilemma"), a concept that highlights the consequences of actions guided by the self-interest of individuals exploiting a finite common resource. The example used by Lloyd – overgrazing of common pastureland – recalls the externalities linked to activities based on the use of common goods and, in recent decades, has underpinned the debate and even some of the measures adopted in polluting sectors.

More recently, scientific evidence has gradually afforded climate change a structural nature, and the externalities and socialisation of climate-related losses have acquired a range of new dimensions. In 2015, in what has become a seminal address in the field, Mark Carney, who was then Governor of the Bank of England and Financial Stability Board (FSB) Chair, coined the expression the "tragedy of the horizon",[1] adding a time dimension to Lloyd's dilemma. The bulk of the financial

1 Carney (2015).

effects of climate change will take years or even decades to materialise, and they are therefore often ignored by economic agents. Reverting this practice, by making it compulsory to recognise an uncertain, yet unequivocal, loss seems to be one of the key goals of regulatory authorities, and was certainly in the spirit of the above-mentioned address.

Information on the various climate risk factors is essential before regulatory tools and compliance mechanisms can be designed. Information is indeed one of the pillars that uphold financial market infrastructure,[2] and its relevance to investor protection is enshrined in the regulatory framework, one of whose objectives is to ensure transparency.[3]

To fulfil this objective, issuers must disclose their financial position, risks and other issues that may prove relevant for the adoption of investment decisions, it being understood that this helps reduce the variability of future cash flow projections. This makes this information especially useful in the case of firms and sectors that are subject to greater uncertainty. Appropriate consideration of climate-related risk factors could enable certain latent losses to be detected, preventing the build-up of positions that might be difficult to unwind, especially in the case of highly leveraged financial institutions.

Appropriate information should, for example, enable investors to identify a gradual decline in the value of oil and gas reserves in light of potential extraction restrictions, or value impairment of buildings erected on floodplains, or to be aware of contingent liabilities relating to damage, penalties or the need to adapt their business to sustainability standards. Otherwise, the inevitable readjustment of expectations – on the back of new scientific evidence, regulatory measures or geopolitical events, to cite just a few potential triggers – could have dramatic effects on the prices of shares and bonds issued by the firms concerned. It would also weigh on the financial institutions (not only banks but also insurance companies and other institutional investors) exposed to the activity of those firms through a variety of channels. As demonstrated time and time again, such disruptions tend to fuel procyclical spirals, and a tightening of financial conditions that ultimately becomes widespread.[4]

In other words, reliable information on climate-related financial risks contributes to an efficient allocation of resources and promotes market discipline. Moreover, in the case of regulated financial institutions, it streamlines supervision and prevents the build-up of positions that may be difficult to unwind, thus reducing systemic risk.

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2 See, for example, Crockett (2002), Turner (2015) or Bailey (2016).

3 IOSCO Objectives and Principles of Securities Regulation.

4 Pérez Rodríguez (2021).

This article focuses precisely on disclosure of the various factors that contribute to the build-up of climate-related financial risks. A multitude of initiatives have been developed in this field in recent years. Following the initial impetus provided by the Task Force on Climate-related Financial Disclosures (TCFD) – a private sector initiative promoted by the FSB in 2015 – the landscape has evolved towards the definition of specific requirements, notably including the proposals of the International Sustainability Standards Board (ISSB), the Securities and Exchange Commission (SEC) in the United States and the European Financial Reporting Advisory Group (EFRAG) in the European Union (EU).

In the following sections this article examines the rationale behind these standards, their main requirements and the contribution they can make to the above-mentioned objectives, namely the efficient allocation of resources, market discipline and financial stability. First, it places the ISSB standards in the present regulatory and political context, in which the two major financial reporting jurisdictions – the United States and the EU – vie for conceptual leadership in designing climate-related financial risk disclosure requirements. After comparing the three regulatory frameworks proposed, a number of general considerations are presented on the importance of this process and a series of conclusions are drawn.

2 The raison d'être of climate change disclosures: the rationale behind and differences between the proposals

When analysing disclosure requirements on the financial effects of climate change, their similarities and differences vis-à-vis pure financial reporting, which they supplement, must be clear. It is also important to establish a distinction between these two types of reporting requirements and those specific to credit institutions (Pillar 3 reporting).

Traditional financial statements – the balance sheet or statement of financial position, income statement and notes to financial statements – are prepared according to the concept of *financial capital maintenance.* Behind this nebulous term lies the key to what is understood as relevant or *material* information, i.e. that which allows the *primary users* of financial statements – investors and creditors – to assess the change in net asset values over a specific period. Thus priority is given to the informational needs of agents that fund the reporting entity, and specifically those related to estimation of the amount, timing and variability of the cash flows expected from their activity.

The Basel Capital Accord's Pillar 3 has to do precisely with the last of these factors: the variability of expected cash flows. Discussions as to the importance of transparency for the safety and soundness of the banking system date back to 1998.[5] However, it was not until the second Basel Capital Accord (Basel II) was being

5 Those discussions materialised in the "Krause report" of the Basel Committee on Banking Supervision (BCBS).

developed that the inclusion of Pillar 3 was considered, aiming to complement the capital requirements (Pillar 1) and the supervisory review process (Pillar 2) by means of reporting requirements that would enable investors and creditors to assess banks' exposures, risk management and capital adequacy.[6] Under Basel II, this informational add-on was conceived as a counterpoint to the greater discretion afforded to banks to determine the applicable capital requirements through their internal models. In that sense, it was understood that market discipline reinforced Pillar 2, rewarding via lower funding costs banks that better manage their risks and penalising their less prudent peers.

It follows that, similarly to general purpose financial reporting, Pillar 3 aims to help credit institutions' investors and creditors in their resource allocation decisions, although it focuses on a subset of information relating to risks and banks' ability to manage those risks and address their potential consequences.

For their part, the ISSB's proposals are fully aligned with the spirit of general purpose financial reporting, with the focus on sustainability and climate-related financial risk information that can affect investors' and creditors' decision-making. The original wording of the proposal referred to *enterprise value,* understood as the sum of a company's market value and its net debt, and to primary users' ability to make judgements about the creation or destruction of that value. Although following replies to the public consultation the prominence of this concept was diluted,[7] the idea of linking investors' and creditors' decisions to value created for all of the company's stakeholders, as a way to enhance information on their long-term prospects, remains. Specifically, it is understood that this will help explain the medium and long-term availability of resources and the quality of the relationships and dependencies on which companies rely, which include not only capital provided by shareholders and creditors, but also their staff, business know-how and their connections with local communities and natural resources.[8]

For instance, if a firm's business model relies on a natural resource, its prospects will be influenced by any change that affects the quality or availability of that resource, be it owing to natural causes or to potential restrictions or regulations. Likewise, if the firm's activity were to have an adverse impact on the health or well-being of local communities, the firm would become mired in litigation that could result in liability and reputational damage affecting its franchise. By contrast, favourable coexistence with its environment would help the firm to attract resources and staff, boosting the quality and stability of its links and dependencies. All of this equally affects the firm's

6 BCBS (2001).

7 For responses to the ISSB's public consultation, see Draft General Sustainability-related Disclosures and Draft Climate-related Disclosures.

8 To identify significant risks and opportunities and their impact on the different stakeholders, the ISSB proposes using the descriptions included in *IFRS Practice Statement 2: Making Materiality Judgements,* in the IASB proposals on the information to be included in the management report, and even in the descriptions on the value creation process set out in the *Integrated Reporting Framework*.

counterparties, such as banks funding its business, as the value of their exposures will largely depend on the above-mentioned value creation or destruction.

Ultimately, appropriate reporting on all these matters influences estimates of firms' future cash flows and, therefore, decisions adopted by investors and creditors. Accordingly, information on climate-related financial risk, and sustainability reporting more broadly, is conceived as supplementary to the financial statements, enabling assessment of the financial impact of those risks. Disclosing such impact can help prevent the build-up of unsustainable financial positions which, when unwound, could seriously undermine financial stability.

3 The TCFD recommendations: first steps towards disclosure of climate-related financial risks and opportunities

Since the tragedy of the horizon was first mentioned, the FSB has been keenly aware of the importance of the financial system supporting transition towards a more sustainable economy and of the key role of information as a regulatory tool to achieve that objective.

To that end, as part of the roadmap encompassing the measures being developed to address climate-related financial risks,[9] the chief focus of the FSB is on the disclosure-related initiatives, prioritising the ISSB's proposals. The FSB considers that the completion of work in this area will facilitate the development of initiatives in the other three categories of the roadmap: the definition of metrics *(data),* which enables *vulnerabilities analysis,* and the design of *regulatory and supervisory tools.*

However, the stepping stone that triggered the start of work on climate-related disclosures was the creation of the TCFD, following a proposal by the FSB to the G20 in 2015.[10] The TCFD comprises representatives of various business spheres and economic sectors[11] and was shaped around the risk categories envisaged in Carney (2015). In 2017 the TCFD published a series of recommendations for voluntary disclosure of climate-related risks and opportunities,[12] with a view to offering guidance on the type of information firms should provide in the following four areas: governance, strategy, risk management, and metrics and targets.

So far, the TCFD's recommendations have served as a basis for climate-related disclosures by more than 3,800 organisations globally, including 1,500 financial institutions and 98 of the world's 100 biggest companies.[13]

9 FSB (2022).

10 FSB (2015).

11 TCFD members.

12 TCFD (2017).

13 TCFD (2022).

The rapid generation and dissemination of climate-related financial information – which in a relatively short period has evolved from good practice based on a voluntary framework to being one of the main focal points of global regulatory action – is largely attributable to the work of the TCFD and the widespread acceptance of its recommendations in both the public and the private sectors. Significantly, numerous international regulatory frameworks, such as those being drawn up by the ISSB, the SEC in the United States and EFRAG in the EU, are currently being designed drawing on the TCFD's recommendations. These are examined in the following sections.

4 From voluntary to compulsory: proposals of the International Financial Reporting Standards Foundation

Culminating a fast-track process to define its governance structure and its decision-making, standard-setting and public oversight arrangements, the creation of the ISSB was announced at the Glasgow Climate Change Conference (COP 26) in November 2021. The ISSB aims to ensure that companies include sustainability and climate-related financial disclosures in their public reporting and that these disclosures are reconciled with the information presented in their financial statements.

Under the umbrella of the International Financial Reporting Standards Foundation (IFRS Foundation), the ISSB was established as a sister body to the International Accounting Standards Board (IASB), building on the success of the International Accounting Standards in terms of international acceptance and the credibility of their standard-setting due process.

With surprising speed given the usual time frames for IASB standard-setting, in late March 2022 the ISSB published two drafts for consultation (IFRS S1 and S2), designed as the embryo of the standards that will support sustainability-related financial reporting in capital markets. The public consultation period ended in July 2022. More than 700 comment letters were received, which the ISSB took into consideration in fine-tuning the technical content of the final standards. At the time of writing this article, the drafting and formal balloting of the standards is still ongoing. They are expected to be issued at the end of 2023 Q2, with entry into force in January 2024 and one year later for the requirements related to Scope 3 greenhouse gas (GHG) emissions.

IFRS S1, on general reporting requirements, asks companies to disclose all of their sustainably-related risks and opportunities. In a manner equivalent to the IASB's Conceptual Framework, IAS 1 on the presentation of financial statements and IAS 8 on accounting policies, changes in accounting estimates and errors,[14] IFRS S1

14 The IAS (International Accounting Standards) and IFRS (International Financial Reporting Standards) are the international accounting standards issued by the IASB.

establishes the general framework around which all other ISSB standards will be structured.

As regards sustainability disclosures in particular, IFRS S1 does not provide a definition or list of specific aspects that companies are required to consider. Unlike IFRS 2, with its more narrowly defined reporting requirements for climate-related financial risks, IFRS S1 directs companies to identify sustainability-related risks and opportunities considering external sources, such as provisions by the Sustainability Accounting Standards Board, the Climate Disclosure Standards Board framework for biodiversity-related disclosures, and recent pronouncements of other standard-setting bodies. It also allows companies to consider as their own the sustainability-related risks and opportunities identified by other companies operating in the same industries or geographies.[15] Finally, in a clear attempt to foster interoperability between standards, the ISSB announced that it will reference EFRAG's European Sustainability Reporting Standards (ESRS) as a possible source of guidance for identifying metrics and disclosures in the absence of a specific ISSB standard, provided that they meet investors' information needs.

As noted above, IFRS S2 addresses disclosures on climate-related risks and opportunities from the standpoint of financial materiality and, therefore, in terms of the impact of physical and transition risks on the company's value creation. As we shall see, this differs from the EFRAG approach, which addresses climate-related risks bidirectionally, considering not only how they contribute to the creation or destruction of value, but also how a company's activities affect its environment.

IFRS S2 requires that companies disclose information about their exposure to climate-related risks and opportunities structured around the following four categories.

Governance

Companies are asked to report on the governance processes, controls and procedures applied in managing climate-related risks and opportunities, and on the related targets and progress towards their accomplishment. Among other aspects, they are required to disclose detailed information about the identity and powers of the bodies responsible for oversight of climate-related risks and opportunities, how often those bodies are informed or how climate-related decisions affect the company's strategic direction and major transactions.

15 In the medium term, the reference to external standards and frameworks is likely to be dropped given that the ISSB intends to identify the thematic standards that should be given priority. According to the most recent updates, topics could include biodiversity, human capital or human rights (ISSB Consultation on Agenda Priorities, December 2022).

Strategy

Companies are required to identify the climate-related physical and transition risks and opportunities that could significantly alter or affect their business model, strategy and financial position. To that end, they are required to provide detailed information on how the risks and opportunities influence their financial position and cash flows, the company's resilience to those impacts and how they are distributed along the value chain (for example, across different geographies, asset types or distribution channels). Companies that use scenario analysis must also include details thereof, reporting on their outcomes and how they compare to the Paris Agreement goals. Moreover, they must disclose their assumptions regarding political decisions that could affect the transition path towards a net-zero economy, and break down the targets in their transition plan and progress towards meeting them, including details about their funding.

Risk management

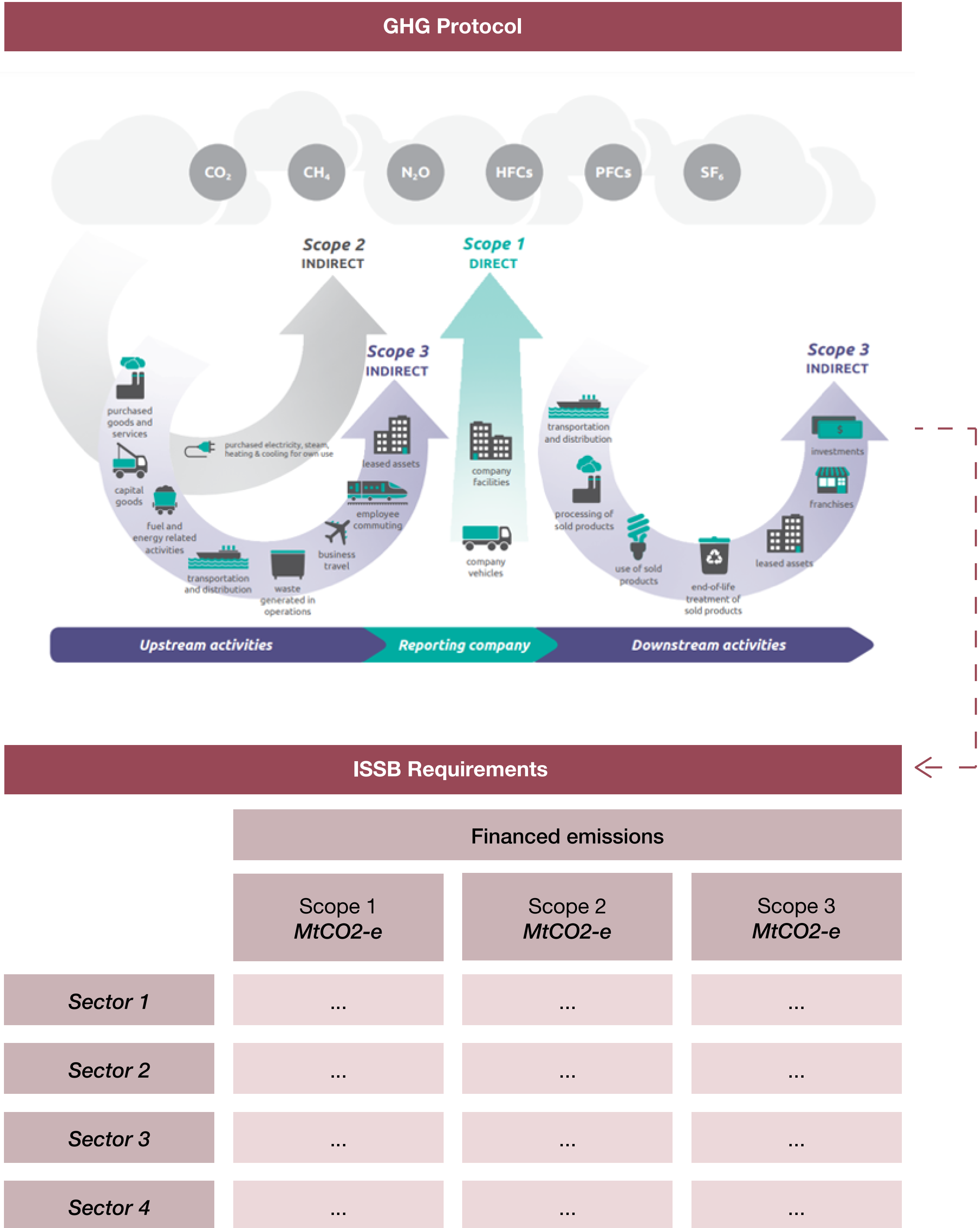
Companies are required to disclose how climate-related risks are identified, assessed, monitored and mitigated. Among other information, they are asked to report how they estimate the probability of those risks materialising and to detail the parameters and information sources used.

Metrics and targets to manage climate-related risks and opportunities

The standard requires seven general metrics that all companies should disclose regardless of their sector: i) GHG emissions broken down between Scope 1, Scope 2 and Scope 3 emissions and emissions intensity;[16] ii) the amount and percentage of assets or business activities vulnerable to transition risks, iii) the amount and percentage of assets or business activities vulnerable to physical risks; iv) the amount and percentage of assets or business activities aligned with climate-related opportunities; v) the amount of investment or financing required to address climate risks; vi) internal carbon prices; and vii) the percentage of executive management remuneration that is linked to climate-related considerations.

16 The GHGs are those listed in the Kyoto Protocol: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), nitrogen trifluoride (NF_3), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6). These are typically expressed in tonnes of CO_2 equivalent, converting non-CO_2 gases to their carbon dioxide equivalents (multiplying the mass of the gas in question by its global warming potential). Scope 1 emissions are direct GHG emissions from sources that are owned or controlled by the company (e.g. emissions from combustion in boilers, furnaces or vehicles). Scope 2 emissions are indirect GHG emissions from the generation of purchased electricity, heat or steam used by a company. Scope 3 emissions are those that occur in the value chain of the reporting company (both upstream and downstream emissions). The ISSB proposals include all 15 categories of emissions listed in the GHG Protocol, requiring companies to disclose gross emissions (in tonnes of CO_2 equivalent) and emissions intensity (expressed in tonnes of CO_2 equivalent per unit of physical or economic output).

Figure 1
GHG PROTOCOL VALUE CHAIN AND POSSIBLE ISSB REQUIREMENTS FOR FINANCED EMISSIONS



	Financed emissions		
	Scope 1 *MtCO2-e*	Scope 2 *MtCO2-e*	Scope 3 *MtCO2-e*
Sector 1	...	...	...
Sector 2	...	...	...
Sector 3	...	...	...
Sector 4	...	...	...

SOURCES: GHG Protocol and Banco de España.

The ISSB proposal also requires a number of industry-specific metrics. However, given the complexity of globally standardising these metrics, the latest updates from the ISSB indicate they will be relegated to an illustrative guidance in the final version of the standard. Conversely, the ISSB has decided to move the financed emissions metric (i.e. financing to GHG-emitting companies) from the industry-specific guidance to the main body of IFRS S2, which implies it will become a required disclosure for three industries, including commercial banking, with a breakdown by emission type (Scopes 1, 2 and 3), industry and asset type. This decision underlines the importance attached to measuring emissions that occur along the value chain of the financial industry, as evidenced in the Greenhouse Gas Protocol (GHG Protocol),[17] and more specifically the analysis of Scope 3 emissions in Category 15 (investments).

Once the final versions of these standards are approved, their endorsement process will be similar to the process applicable to international accounting standards issued by the IASB. It will therefore be national legislators who determine whether or not the ISSB standards are mandatory in each jurisdiction. In the European Union, the European Commission is responsible for endorsement. In the case of the IASB standards, following EFRAG's endorsement advice, the Accounting Regulatory Committee (ARC)[18] decides whether the standard is adopted and, if so, whether in full or with any refinements or carve-out. The Commission then prepares a draft regulation which is submitted to the European Parliament for approval, following favourable opinion by the EU Council. For sustainability disclosures, given that EFRAG has already submitted its own draft set of standards to the Commission, it will be important to give companies certainty regarding interoperability between the two frameworks, including on how the information should be prepared and the endorsement process.

5 Other international initiatives: European Financial Reporting Advisory Group and Securities and Exchange Commission

European Financial Reporting Advisory Group (EFRAG)

The Corporate Sustainability Reporting Directive (CSRD), which requires European companies to publish detailed information on sustainability issues, designates EFRAG as the technical advisor to designing the standards that will define those disclosure requirements. These will apply to large firms, defined as those that meet two of the following conditions: i) a balance sheet total of more than €20 million; ii) net turnover of more than €40 million; and iii) an average headcount of more than 250 employees. The requirements also extend to listed SMEs, excluding microenterprises.

17 The GHG Protocol provides global standards, guidance, tools and training to measure and manage GHG emissions.

18 All Member States participate in this level 2 committee. As an example, Spain is represented by the Instituto de Contabilidad y Auditoría de Cuentas (Accounting and Auditing Oversight Body).

In November 2022, EFRAG submitted the first set of EU Sustainability Reporting Standards (ESRS) to the European Commission, comprising 12 cross-cutting and topical standards structured around environmental, social and governance (ESG) aspects. As Figure 2 shows, one of these standards is specific to climate change, and EFRAG plans to develop sector-specific standards in the future.

As regards the climate change standard, it should first be understood that EFRAG approaches climate-related financial risks as a two-sided coin, considering both how climate change affects a company's expected profitability (financial materiality) and the impact of the company's business on its environment (environmental and social materiality).[19] This more ambitious view of climate risk translates into some differences in content. Table 1 presents a high-level comparison of the ISSB and EFRAG requirements.

Once the draft standards are submitted to the European Commission, adoption of the final version will first require the opinion of the European Securities and Markets Authority. The opinions of various other bodies will also be sought, including the Technical Expert Group on Sustainable Finance (comprising representatives of all Member States), the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority, the European Environment Agency, the EU Agency for Fundamental Rights, the European Central Bank (ECB), the Committee of European Auditing Oversight Bodies and the Platform on Sustainable Finance. In January 2023, both the EBA and the ECB issued opinions in which they expressed their appreciation of EFRAG's efforts to align its standards with those of the ISSB (e.g. by structuring the content around the TCFD's building blocks and aligning terminology) and suggested that reporting in accordance with the ESRS be automatically recognised as compliance with the ISSB standards to avoid double reporting.[20]

Once the ESRS are approved, they will be adopted as delegated acts and will, therefore, be directly applicable in national legislation. The first set will foreseeably be approved in mid-2023 and, once adopted, will enter into force between 2025 and 2029.

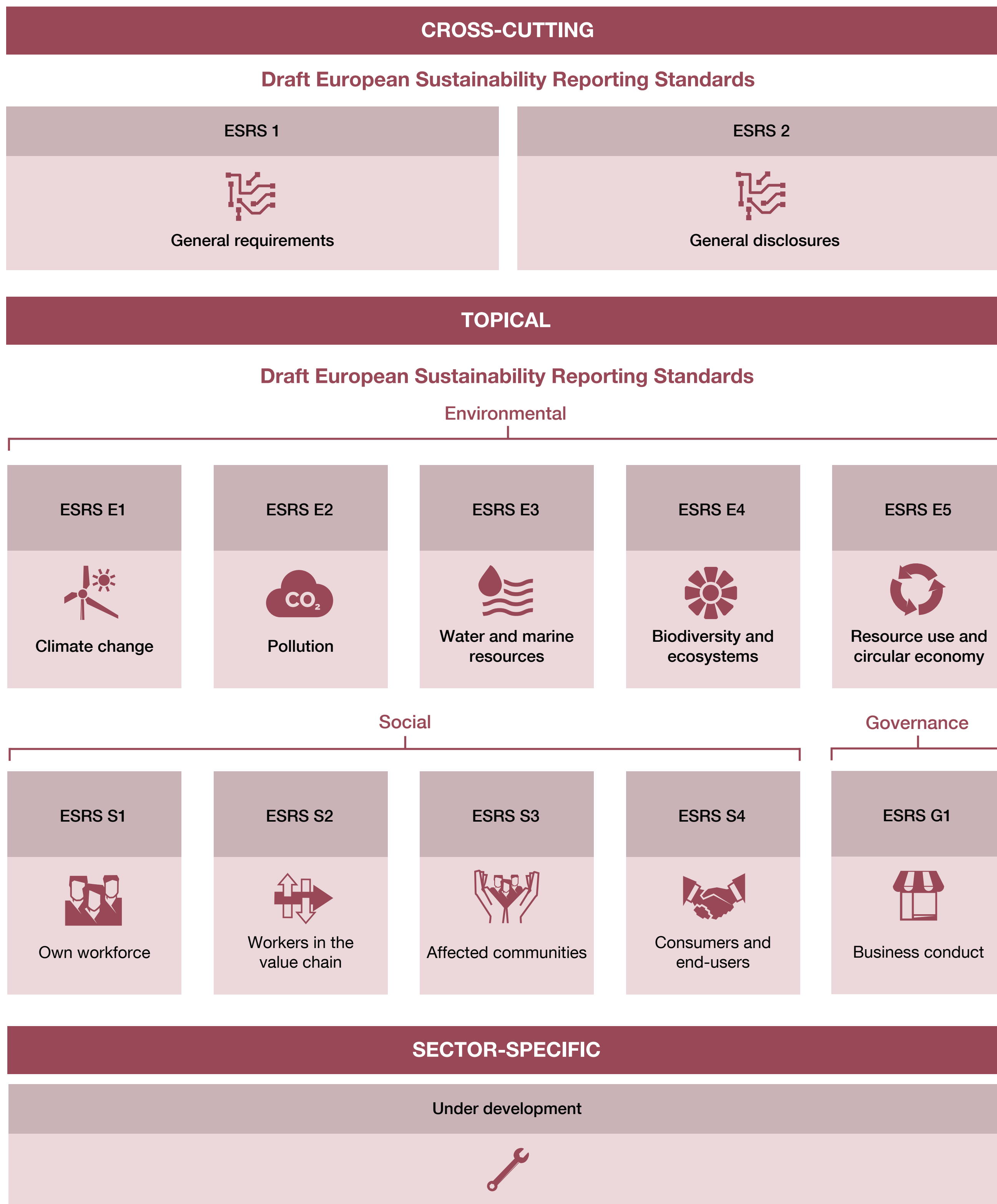
Securities and Exchange Commission (SEC)

In March 2022, the SEC published a draft rule under which companies listed in US markets would be required to include climate-related disclosures in their annual

19 Alonso and Marqués (2019).

20 The ECB opinion can be found at https://www.ecb.europa.eu/pub/pdf/other/ecb.staffopinion_europeansustainabilityreportingstandards202302~fc42a81b30.en.pdf, while the EBA opinion is available at https://www.eba.europa.eu/eba-issues-opinion-european-commission-draft-european-sustainability-reporting-standards. The EBA notes that Pillar 3 requirements will enable credit institutions to compile granular and quality information on the counterparties that they finance (such as information on GHG emissions or energy performance certificates, to name but a few), very much in line with the information needs of market participants.

Figure 2
EUROPEAN SUSTAINABILITY REPORTING STANDARDS



SOURCE: Banco de España.

Table 1
COMPARISON BETWEEN THE ISSB AND EFRAG PROPOSALS

Governance	All of the ISSB requirements are covered in the EFRAG standards.
Strategy	All of the ISSB requirements are covered in the EFRAG standards, which also require: — Information on the company's products and services, including whether they are subject to any kind of ban in any market. — How the interests and views of the company's main stakeholders are taken into account. — More details on the transition plan, in particular: i) details of GHG emission reduction targets and how these align with the Paris Agreement, with specific targets for 2030 and 2050; ii) a qualitative assessment of locked-in GHG emissions; and iii) if the company does not have a transition plan, what plans it has to adopt one. — With regards to the potential impact of climate change on credit institutions, specific disclosures aligned with, among others, the EBA requirements, such as the carrying amount of immovable property based on its energy consumption or the carrying amount of assets exposed to physical risk, including a breakdown by location and by type of acute and chronic events.
Risk management	All of the ISSB requirements are covered in the EFRAG standards, which also require greater detail on the processes to identify physical and transition risks, along with their impact, considering different climate scenarios (by way of guidance, a list of climate-related physical and transition events is provided).
Metrics and targets	All of the ISSB requirements for cross-cutting metrics are covered in the EFRAG standards, which also require the following: — Energy mix, distinguishing between renewable and non-renewable sources — More details on GHG emissions, with a breakdown of the share of Scope 1 emissions under the Emissions Trading System (EU ETS) and classification of the type of carbon offsets (GHG credits and capture and storage). — GHG emission reduction targets, identifying the mitigation levers (energy efficiency, switch to renewable energies or product substitution, among others).

SOURCES: EFRAG and Banco de España.

reports. Like the other proposals discussed previously, the SEC takes the TCFD framework as a reference, arguing that many companies already use it as a basis for their voluntary disclosures and acknowledging the benefits of aligning with international practice.

Unlike the ISSB and EFRAG draft standards, this proposal focuses solely on climate-related financial risks and leaves aside other sustainability issues. It is broadly aligned with the ISSB requirements on governance, strategy and risk management. However, there are some differences and specificities in relation to metrics and targets. First, the SEC proposal does not include sector-specific metrics and there are no plans to develop any in the near future. Second, it only requires the breakdown of Scope 3 emissions if they are material, and disclosure of those emissions is subject to a legal safeguard to prevent any resulting error from being deemed fraudulent, unless bad faith can be demonstrated. Lastly, the SEC proposal does not require disclosure of the percentage of executive management remuneration linked to climate-related considerations.

Initially the final standard was set to enter into force between 2024 and 2026, depending on each company's market capitalisation, with an additional year for Scope 3 emissions. Although the consultation period ended in June 2022, no

significant progress has been made, possibly influenced by the June 2022 decision by the US Supreme Court in the case of West Virginia v. Environmental Protection Agency (EPA),[21] finding that the EPA has no authority to issue regulations limiting emissions and that such decisions can only be made by Congress or an agency with its expressly delegated authority.

6 Conclusions

This article has endeavoured to outline the main features of the three regulatory frameworks currently competing to become the international benchmark for disclosure of climate-related financial risks. All the proposals (ISSB, EFRAG and SEC) build on the TCFD's recommendations and respond to the paradigm that was set out in 2015 by Mark Carney and reflected in FSB discussions. However, it is instructive to analyse their differences and nuances, which essentially relate to how the principle of materiality is conceptualised and could affect the type of information required.

Notwithstanding these discrepancies, the criteria will foreseeably translate into more specific disclosure requirements as the final standards are built out and implemented. From a practical standpoint, it would make little sense to decouple this information from the estimation of cash flows. At the same time, it would be desirable for financial materiality, understood either from the capital maintenance or the enterprise value perspective, to take into account the company's relationships and dependencies and their impact on long-term value.

It will be interesting to watch the political developments over the coming months and how the required balance between the three proposals take shape. The European framework is highly ambitious and seems to be leading the way in several aspects. However, the relevance of the ISSB and SEC projects should not be underestimated, given the proven success of the IFRS Foundation's standard-setting due process and the importance of the US capital markets. In light of the numerous multinational companies that could potentially be subject to one or more of these requirements, the challenges would become even greater if the frameworks were ultimately incompatible or divergent on key matters. It is therefore paramount to ensure their interoperability, taking advantage of their parallel development.

In any event, the process is still in its infancy. Indeed, work on disclosures is just the first of four sequential stages envisaged in the aforementioned FSB Roadmap which covers ongoing initiatives in relation to climate-related financial risks. This is a complex structure in which each of the different pieces will have to fit together, but it first requires company information that allows these risks to be priced.

21 Supreme Court of the United States (2021).

How can we respond to the multidimensional challenge of climate change? Is it possible to address the different transmission channels to financial stability, and to do so without imposing burdens on future generations? To what extent can the necessary reforms be implemented using the existing mechanisms, institutions and markets? The answers to these questions are necessarily uncertain. Given the multiple dimensions of the challenge, an approach that explores different tools from a range of fields seems warranted. Using disclosures as a disciplinary mechanism might be a first step.

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How to cite this document

Covadonga Martínez and Pablo Pérez Rodríguez. (2023). "Climate change, financial risks and reporting: Distant horizons?". *Financial Stability Review - Banco de España,* 44, Spring. https://doi.org/10.53479/33797