



THE UNIVERSITY OF  
**SYDNEY**

## **The University of Sydney Accounting Foundation**

2020 Engaged Research Grant Scheme  
Executive Summary

**The disclosure of financial  
impact of climate-related  
risk and the effect on  
analyst valuation**



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We recognise and pay respect to the Elders and communities – past, present, and emerging – of the lands that the University of Sydney's campuses stand on. For thousands of years they have shared and exchanged knowledges across innumerable generations for the benefit of all.

# The disclosure of financial impact of climate-related risk and the effect on analyst valuation

## Key conclusions

Where and how quantified climate-related financial impact matters to analyst.

## Abstract

The growing recognition by investors that climate risk may significantly impact company performance has led to demand for climate-related disclosure (CRD). This study examines professional and nonprofessional investors' reactions to two disclosure features, namely, the quantification of climate-related financial effects in dollar terms (i.e., the presence or absence of financial quantification) and the disclosure venue (i.e., whether in a financial filing or stand-alone sustainability report). Consistent with our predictions, we find that financial quantification decreases perceived CRD quality when it is disclosed in a company's financial filing but perceived CRD quality increases when it is disclosed in a separate sustainability report. These different perceptions have a flow on impact on investors' evaluations of a company. In addition, we conduct interviews with professional investors to gain a better understanding of how they view these two disclosure choices. Our interview results provide further support for our experimental findings. Our study highlights challenges and recommendations for companies when communicating quantified climate-related financial effects to investors.



## Introduction

The demand for climate-related disclosure (CRD) has been rising with a growing recognition by investors and regulators that climate risk has the potential to significantly impact company financial performance (Flammer et al., 2021; International Financial Reporting Standards [IFRS], 2023; Investor Group on Climate Change [IGCC], 2024). The importance of access to transparent, comparable and credible CRD for smarter and more efficient capital allocation has led to the issuance of a global baseline reporting standard from the International Sustainability Standards Board (ISSB), i.e., IFRS S2, which is being increasingly adopted by jurisdictions across the globe (IFRS, 2025a). In line with this, Australia has drawn on IFRS S2 as the foundation for its now mandatory climate-related disclosure requirements (Australian Treasury, 2024).

Despite significant momentum for more standardized and comparable CRD, the inherent complexities and uncertainties associated with climate-related risks have engendered a wide range of CRD in practice. While investors are targeted as the primary users of CRD to facilitate smarter and more efficient capital allocation, little is known about how types of CRD affect their decision-making processes, especially professional investors. In this study, we provide evidence on the impact of two prominent features of CRD on the judgment of sophisticated professional investors (addressed in our main experiment) and nonprofessional investors (addressed in our supplemental experiment). Specifically, we examine investor reactions to the provision of *quantified climate-related financial effects* (i.e., where financial impact is stated in dollar terms) and the *disclosure venue of the CRD* (i.e., in the regulatory financial filing, hereafter referred to as “financial filing”, or in a stand-alone sustainability report, hereafter referred to as “sustainability report”).

Professional investors demand that companies provide quantitative information on climate-related financial effects, given this is critically important for decision-making. Such decisions include evaluating how the benefits of reducing greenhouse gas emissions stack up in relation to the associated costs, as well as assessing the value of spending on climate mitigation relative to other investment opportunities (Diaz & Moore, 2017). IFRS S2 requires an entity to disclose quantitative and qualitative information about how climate-related risks and opportunities affect financial position, financial performance, and cash flows for the reporting period (current financial effects), in addition to the short-, medium- and long-terms (anticipated financial effects). It is recognized that a more quantitative approach would generally be of greater benefit to an entity and its investors when there is a high degree of exposure to climate-related risks (IFRS, 2023). The standard, however, allows flexibility with respect to providing quantitative information regarding financial effects. For example, an entity can refrain from quantifying climate-related financial effects when the level of measurement uncertainty involved in estimating those effects is so high that it renders quantification unhelpful for decision-making. The International Accounting Standards Board (IASB) has been working on targeted actions to improve reporting of the effects of climate-related risks in response to marked concerns from stakeholders that information about the effects of climate-related risks is insufficient (IFRS, 2025b).

Also, of concern are the inconsistencies in practice regarding climate-related disclosure venues. Investors have been calling for the inclusion of CRD in financial filings because climate risks pose increasingly material financial risks to their investment decisions (Carney, 2015; Principles for Responsible Investment [PRI], 2020). Moreover, while ISSB standards require an entity to provide sustainability-related (including climate-related) disclosures as part of its general-purpose financial reports, an entity is permitted to include this information via references to other reports, such as stand-alone sustainability reports (IFRS, 2025c). In practice, climate-related disclosures are found in various venues including regulatory financial filings,<sup>1</sup> annual reports, stand-alone sustainability reports, and climate reports (Simnett et al., 2025). Even in jurisdictions where climate-related disclosures are or will be mandatory, there's considerable variation as to where and how such disclosures should be made.<sup>2</sup>

## Objectives

To provide a better understanding of how the provision of quantified financial effects in CRD and a company's choice of disclosure venue affect investor decision making, we draw on both accounting research investigating financial quantification and psychological research addressing target stimulus evaluation. In so doing, we propose that providing quantified climate-related financial effects in CRD will have different effects on investors depending on whether such disclosures occur in a financial filing or in a stand-alone sustainability report. Further, it is argued that these differential quality perceptions then influence investors' evaluations of a company as an investment.

## Research method

To test our predictions, we conduct two 2x2 between-subjects experiments where experienced professional investors (main experiment) and nonprofessional investors (supplemental experiment) assess the quality of the CRD of a hypothetical company and make several investment-related decisions in relation to the company. We manipulate the inclusion of quantified climate-related financial effects in the report (being either absent or present) and the disclosure venue of the CRD (being either in the financial filing or sustainability report).

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1 In our paper, 'regulatory financial filing' is synonymous with SEC or 10-K filing in the U.S and 'company filing' in other countries. While regulatory financial filing is mandatory, there is discretion over some of the information formally submitted for filing.

2 For example, Australia has recently mandated that climate-related disclosures are to be made in an integrated Sustainability Report, as the fourth component of the Annual Report (alongside the Financial Report, Directors' Report, and Auditor's Report). Singapore's proposed legislation requires such disclosures in separate sustainability reports, as well as a summary in the annual report (KPMG, 2025; IFRS, 2025a). Even when IFRS S1 requires an entity to provide sustainability reporting as part of its general-purpose financial reports, it does not prescribe the location for such disclosure. Accordingly, this information could be integrated throughout the front part of the report, included in a separate section, or cross-referenced from a separate sustainability report (IFRS, 2023).

# Main findings and implications for practice

Consistent with our expectations, we find that providing quantified climate-related financial effects decreases (increases) the CRD's perceived quality when it is situated in a financial filing (sustainability report).

We also find support for a moderated mediation model suggesting that the interaction between quantification and disclosure venue affects investors' investment judgments via their perception of CRD quality. Additionally, for nonprofessional investors, we find that providing quantified climate-related financial effects lowers their evaluations of the company when the CRD is situated in a financial filing. However, more favourable evaluations ensue when the CRD is situated in a sustainability report. We do not find the same effect on investment evaluation for professional investors.

To gain a better understanding of our results, we conduct interviews with professional investors following our main experiment. Insights from these interviews corroborate our findings. The quantification of climate-related financial effects appears to be a double-edged sword. It signals commitment and accountability from the company but activates a sceptical mindset, especially when such information is situated in financial filings. This is because professional investors are accustomed to "pull[ing] the numbers apart" to better understand issues/motives. Our interviewees also shed light on how companies can make quantified climate-related financial effects more useful for investors.

Our study is timely, helping inform regulators and standard setters involved in making CRD policy choices. While CRD has priority in policy making and standard setting given the urgency of addressing climate-related change and decarbonizing our economy, it also sets the foundation for upcoming changes in other aspects of sustainability disclosure. Hence, the findings from our study may have important implications for a broader range of sustainability-related financial disclosures.

## Conclusions

Our study provides timely evidence about the effect of CRD on the judgments of both professional and nonprofessional investors, particularly as capital market regulators in several jurisdictions move to make CRD a mandatory part of annual financial reporting. Our findings can serve as a forewarning about the rigour expected by professional investors when a CRD is made within financial filings, as well as the scepticism applied by professional investors to such quantified financial filings. This research comes at a pivotal moment for corporate reporting – where credibility, clarity and integrity of CRD will not only shape investor confidence but also determine the pace at which capital markets can drive meaningful investment towards a decarbonized future and a more sustainable economy.



# References and further reading

- Australian Treasury. (2024). *Mandatory climate-related financial disclosures. Policy position statement*. Australian Government. <https://treasury.gov.au/sites/default/files/2024-01/c2024-466491-policy-smt.pdf>
- U.S. Securities and Exchange Commission (SEC). (2022, March 21). *SEC proposes rules to enhance and standardize climate-related disclosures for investors* [Press Release]. U.S. Securities and Exchange Commission. <https://www.sec.gov/news/press-release/2022-46>.
- Carney, M. (2015, September 29). *Breaking the tragedy of the horizon - Climate change and financial stability* [Speech]. Bank of England. <https://www.bankofengland.co.uk/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability>.
- Diaz, D. & Moore, F. (2017). Quantifying the economic risks of climate change. *Nature climate change*, 7(11): 774-782. <https://doi.org/10.1038/nclimate3411>.
- Flammer, C., Toffel, M. W., & Viswanathan, K. (2021). Shareholder activism and firms' voluntary disclosure of climate change risks. *Strategic Management Journal*, 42(10), 1850-1879. <https://doi.org/10.1002/smj.3313>.
- IFRS Foundation. (2023a). *IFRS S2 Climate-related Disclosures, Standard 2023 Issued*. IFRS Foundation. <https://www.ifrs.org/issued-standards/ifrs-sustainability-standards-navigator/ifrs-s2-climate-related-disclosures/>.
- IFRS Foundation. (2025a, June 12). *IFRS Foundation publishes jurisdictional profiles providing transparency and evidencing progress towards adoption of ISSB standards*. IFRS Foundation. <https://www.ifrs.org/news-and-events/news/2025/06/ifrs-foundation-publishes-jurisdictional-profiles-issb-standards/>.
- IFRS Foundation. (2025b). *Climate-related and other uncertainties in the financial statements*. IFRS Foundation. <https://www.ifrs.org/projects/work-plan/climate-related-risks-in-the-financial-statements/#about>.
- IFRS Foundation. (2025c). *Disclosing information about an entity's climate-related transition, including information about transition plans, in accordance with IFRS S2*. IFRS Foundation. <https://www.ifrs.org/content/dam/ifrs/supporting-implementation/ifrs-s2/transition-plan-disclosure-s2.pdf>.
- Investor Group on Climate Change (IGCC). (2024, April 22). *15 peak industry groups support mandatory disclosures*. Investor Group on Climate Change. <https://igcc.org.au/15-peak-industry-groups-support-mandatory-disclosures/>.
- Principles for Responsible Investment (PRI). (2020, September 18). *Investor groups call on companies to reflect climate-related risks in financial reporting*. Principles for Responsible Investment. <https://www.unpri.org/news-and-press/investor-groups-call-on-companies-to-reflect-climate-related-risks-in-financial-reporting/6434.article>.
- Simnett, R., Tan, Y. (Hazel), You, J., & Zhou, S. (2025). Australian listed entities' preparedness for mandatory reporting and assurance of climate-related disclosures. Abacus (Sydney). <https://doi.org/10.1111/abac.12363>.



# Acknowledgments

The author(s) would like to thank  
The University of Sydney Accounting  
Foundation for funding this project.

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