

New Political Economy

New Political Economy

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/cnpe20

Accounting for whom? The financialisation of the environmental economic transition

Sylvain Maechler

To cite this article: Sylvain Maechler (2023) Accounting for whom? The financialisation of the environmental economic transition, New Political Economy, 28:3, 416-432, DOI: 10.1080/13563467.2022.2130222

To link to this article: https://doi.org/10.1080/13563467.2022.2130222

© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



6

Published online: 02 Oct 2022.

С	
Ľ	2

Submit your article to this journal 🖸

Article views: 2099



View related articles 🗹

View Crossmark data 🗹

OPEN ACCESS

Routledge

Taylor & Francis Group

Accounting for whom? The financialisation of the environmental economic transition

Sylvain Maechler 回

Institut d'Etudes Politiques, University of Lausanne, Lausanne, Switzerland

ABSTRACT

Accounting standard-setters including the International Financial Reporting Foundation have recently begun to revisit the relationship between accounting and sustainability to address issues of environmental economic transition. How has sustainability become an issue of interest to accounting standard-setters? And how do accounting standards intend to contribute to the environmental economic transition? Scholars of international political economy and cognate fields have devoted little attention to the study of international accounting standards, particularly in relations to sustainability. Drawing on a set of qualitative data and an interdisciplinary literature on finance and financialisation, this article first argues that accounting standardsetters' interest in sustainability is the result of the incremental transformation of environmental issues into meaningful information for investors' decision-making. Secondly, it shows that these standards and their development are based on the premise that the environmental economic transition depends on the provision of information that primarily meets the needs of investors, contrasting starkly with the original underpinnings of sustainability accounting. Overall, both the fact that financial accounting standard-setters are becoming involved in sustainability, and the way that they are addressing this issue, are further evidence of a financialisation of the environmental economic transition.

KEYWORDS

Accounting; environmental transition; financialisation; standards; sustainability

Introduction

On the third day of the 2021 climate change summit in Glasgow (COP 26), which was dedicated to private finance, Mark Carney, former central banker and recently appointed United Nations Special Envoy on Climate Action and Finance, made an ambitious announcement: the mobilisation of US \$130 trillion for global decarbonisation and, more generally, for the transition to a low environmental impact economy. On the same day, another announcement went relatively unnoticed. The International Financial Reporting Standards (IFRS) Foundation that governs international financial accounting standards indicated that it will extend its mandate to sustainability accounting. However, the relationship between accounting and sustainability is not new. Many sustainability accounting initiatives aim to account for social, and especially environmental, impacts of firms that are not captured by financial accounting standards (Thistlethwaite 2011, Thistlethwaite and Paterson 2016). How has sustainability become an issue of interest to accounting standard-

© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (http:// creativecommons.org/licenses/by-nc-nd/4.0/), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

CONTACT Sylvain Maechler Sylvain.maechler@unil.ch

setters? And how do accounting standards intend to contribute to the environmental economic transition?

Despite some long-standing research on financial accounting standards (Perry and Nölke 2006, Donnelly 2007, Leblond 2011, Mügge and Stellinga 2015), and a growing interest in the relationships between the global political economy and sustainability (Clapp and Dauvergne 2011, Jinnah and Morin 2020, Newell 2020, Green et al. 2021, Paterson 2021), international political economy and cognate fields have paid limited attention to the role played by international accounting standards when it comes to sustainability. A body of literature has rightly identified the growing consensus among global financial actors such as central banks, institutional investors and insurers, which increasingly see and frame environmental issues as financial risks to be calculated and managed (Bracking 2012, Pattberg 2012, Christophers 2017, 2019, Neville et al. 2019, Langley and Morris 2020, Leins 2020, Gabor 2021, Gray 2021, Taylor 2022). But this literature does not explore how international accounting standards echo these developments. A few studies have focused on how a variety of sustainability accounting initiatives have emerged through the authority and expertise of private actors, such as non-governmental organisations, investors, accountants, financial analysts (Lovell and MacKenzie 2012, Hiss 2013, Thistlethwaite 2015, Thistlethwaite and Paterson 2016), but not how international accounting standard-setters have addressed this issue beyond the requirements of their existing set of standards (Thistlethwaite 2011). For its part, accounting studies has a long tradition of examining sustainability issues (for a comprehensive overview of the field, see Bebbington et al. 2021). Since the late 1980s, it has been at the forefront of the critique of financial accounting when it comes to the environment and society (Hines 1988, Gray 1990, Maunders and Burritt 1991). It is therefore no surprise that scholars in this field have employed their skills to develop new accounting schemes that account for the environmental (and social) impacts of firms (Bebbington et al. 2001, Richard 2012, Gray et al. 2014). While accounting scholars have identified the crucial moment related to this expansion of the mandate of international accounting standardsetters – which include not only the IFRS Foundation, but also state-led accounting bodies such as the European Financial Reporting Advisory Group (EFRAG) or the United States Securities and Exchange Commission (US SEC) – there is no consensus in their assessment of the political processes and outcomes underpinning these developments (Abela 2022, Adams and Mueller 2022, Giner and Luque-Vílchez 2022, de Villiers et al. 2022).

Drawing on an interdisciplinary literature on finance and financialisation (Epstein 2006, Best 2010, van der Zwan 2014, Christophers 2017, Ortiz 2021), this article argues that this new mandate for accounting standard-setters regarding sustainability is both a result and a driver of the financialisation of the environmental economic transition. More specifically, I first suggest that accounting standard-setters' interest in sustainability is the result of the incremental transformation of environmental issues into meaningful information for investors' decision-making. Secondly, I argue that these standards and their development rely heavily on this assumption that the environmental economic transition requires the provision of information that meets investors' needs. I show how a project driven by the IFRS Foundation contrasts starkly with the long-standing attempts to bring sustainability accounting to a wider audience, beyond investors' needs. The European Union (EU) partly follows this project of accounting beyond investors' needs – although there are, in my opinion, persistent ambiguities and conflicts regarding the audience being targeted. Overall, both the fact that financial accounting standard-setters are becoming involved in sustainability, and the way that they are mainly addressing this issue, are further evidence of a financialisation of the environmental economic transition (Christophers 2017, Gabor 2021).

This article draws on content analysis to extract meaning from diverse communications (Moyser and Wagstaffe 1987, p. 20, Hermann 2008, p. 152). These communications include extensive information gathered through participation in meetings and conferences dedicated to the development, standardisation, promotion and diffusion of these accounting instruments (18 meetings ranging from less than one hour to several days, followed either online or in person between March 2019 and December 2021).¹ Secondly, I draw on 12 semi-structured interviews with environment

officers, sustainability managers, economists and accountants involved in in projects of sustainability accounting. Thirdly, data were gathered through the analysis of a corpus of primary sources, including standards, protocols, case-studies, and consultation documents. In addition, a range of secondary accounting sources are used to contextualise and historicise the evolution of sustainability accounting, especially its recent convergence with the traditional users of financial accounting.

The article is structured as follows. Section one reviews the core principles of financial accounting, particularly as they relate to the users of financial accounting statements. Section two describes how sustainability accounting was originally developed in opposition to most of these financial accounting principles, providing information beyond the needs of investors as viewed by accounting standard-setters. The following section is organised around three sub-themes. It (i) examines how environmental issues have been incrementally framed as meaningful information for investors' decision-making; then (ii) describes how the IFRS Foundation has taken on this mandate by focussing on the needs of investors, while the EU and US are developing their own, opposing, projects; and finally (iii) discusses how sustainability accounting standards contribute to a financialisation of the environmental economic transition.

Financial accounting: users as predictive investors

Financial accounting standards are governed by two private organisations. Public companies in the US use the Generally Accepted Accounting Principles (US GAAP) set by the Financial Accounting Standards Board (FASB), to which the US Securities and Exchange Commission (SEC) has delegated such responsibility. Public companies in (currently) 166 other jurisdictions – including the EU – use the International Financial Reporting Standards. The IFRS are set by the International Accounting Standards Board (IASB) whose aim, since the early 2000s, has been to create a single set of global accounting standards to be adopted by countries. The IFRS Foundation is responsible for the governance of the standard-setting process (for example, selecting the board members of the IASB, and now of the newly established International Sustainability Standards Board, the ISSB, which we will come back to later). A lengthy process of 'convergence' means that the standards of US GAAP and the IFRS now share most, but not all, of their core principles (Leblond 2011, Clark 2019).²

The Statement of Basic Accounting Theory published in 1966 by the American Accounting Association (AAA) is a seminal, albeit controversial, document that answers the first fundamental guestion of accounting: for whom the information is intended; that is, who are the 'users' of accounting statements (Zeff 1999, Young 2006, Haslam et al. 2018). It defines accounting as '[t]he process of identifying, measuring, and communicating economic information to permit informed judgments and decisions by users of the information', and goes on to identify 'equity investors and their representatives [as] the most important of the user groups' (AAA 1966, pp. 1, 23, my emphasis). Although Young (2006, p. 580) points out that '[w]e cannot proceed on the premise that accounting is the monopoly of any one group', he acknowledges that the AAA Statement constructed a 'taken-forgrantedness' that investors are the principal users of accounting. This is how the IFRS standards still view users: 'investors, lenders and other creditors - current or potential - who must rely on general purpose financial statements for much of their information needs' (IFRS 2019). Despite some differences, especially related to the visibility of financial market transactions, the US GAAP standards also see investors as the primary users of accounting statements (Clark 2019). This means that from the viewpoint of standard-setters, accounting statements should reflect investors' needs.

While financial accounting users, as well as investors, are diverse and heterogeneous, accounting standard-setters have a precise picture of these actors. Following Young's analysis (2006, pp. 592–5), investors are rational, calculative, predictive, economistic beings. The second core question of accounting is consequently *what* information these users need for making economic calculations and predictions. In 1966, the AAA stressed that 'users of financial information reported by a profit-oriented firm are involved in efforts to predict the earnings of the firm for some future

period' (AAA 1966, p. 23). The IFRS standards - more precisely the standard IAS 1: Presentation of Financial Statements – still draw on this assumption to require only information related to the 'financial position' of the firm: in other words, information affecting the maintenance of financial capital, that is, the financial risk borne by investors. In accounting terms, the information reported by a firm must be 'financially material'. The concept of 'financial materiality' involves information that 'could reasonably be expected to influence decisions [made by] the primary users of general purpose financial reports' (IASB 2018, p. 26). Yet, the identification of the information that may influence investors' decisions is often viewed as 'a matter of opinion' (Puroila and Mäkelä 2019, p. 1043), or of 'value judgments' (Brown and Dillard 2018, p. 437). As issues other 'than strictly economic ones and/or not influencing the decisions of investors are removed' (Young 2006, pp. 594–5), the materiality of information in accounting, or accounting more generally, plays a part in the construction of the economic reality (Chiapello 2008, Mennicken and Miller 2012). As a result, the provision of information useful to investors and creditors is argued to be in stark contradiction with the requirements of a low environmental impact economy: 'the impact of corporate actions and choices upon [...] the environment, communities and almost anyone or anything other than investors and creditors is likely to be regarded as irrelevant, insignificant, meaningless and inappropriate for inclusion in accounting reports' (Young 2006, p. 597).

The third central issue in contemporary accounting is the time frame over which the information related to maintenance of financial capital is measured. This issue was the subject of a controversial development in the early 2000s, when 'the conceptual underpinnings of the standards move[d] accounting practice away from established concepts of historical cost and stewardship towards concepts of investor decisions based on future cash flows and fair values' (Georgiou and Jack 2011, p. 311). While investors have always been involved 'in the making of forecasts' (AAA 1966, p. 23), assets and liabilities were shown at their acquisition cost from the 1930s until the end of the 1990s (Power 2010, Mügge and Stellinga 2015). With the increasing emphasis on 'shareholder value maximisation' and the shift from production to finance (Boyer 2000, Williams 2000), accounting has been reoriented into the future to better 'meet the needs of passive investors and creditors by reporting fair values derived from current market prices' (Whittington 2008, p. 139). What qualifies as 'fair-value accounting' (FVA), in contrast to 'historical cost accounting' (HCA), is no longer about costs, but about the value of assets and liabilities today according to their ability to provide financial gains in the future. In other words, FVA should offer users, i.e. investors, a better picture of the expected risk of their investments. While such anticipatory calculation was already a common practice in the US, European banks were more resistant to this development, worrying about increased volatility of their assets and liabilities generated by such 'futurity' (Leblond 2011, p. 453). After many negotiations, essentially led by the IFRS (Mügge and Stellinga 2015), FVA has been institutionalised, globalised, 'taken-for-granted and routinised' (Georgiou and Jack 2011, p. 312). While HCA 'offers little room for manipulation as long as original purchase prices or amortised costs are used' (Laux and Leuz 2010, p. 97), the misevaluation of assets and liabilities under FVA has prompted extensive debates in the context of the 2008 financial crisis (Haslam et al. 2018).

These future-oriented measurements are intended not only to disclose assets and liabilities at their present value: they should also enable firms to make fair provisions. Provisions represent funds set aside for future expenses. More specifically, according to *IAS 37: Provisions, Contingent Liabilities and Contingent Assets*, 'a provision is a liability of uncertain timing or amount' discounted to its present value, i.e. measured according to FVA, and which 'should act as [a] safeguard' in the face of uncertain events (Laux and Leuz 2010, p. 94). While the global ecological crisis and the related environmental economic transition may be counted as such uncertain events (Maechler and Graz 2022), it has been shown that under current financial accounting standards, there are only rare occasions when environmental values are (or can be) accounted for, e.g. the cleaning of contaminated land (Thistlethwaite 2011). Making environmental issues a meaningful input for investors' decisions would, theoretically, involve considering them as costs to be provisioned. Garcia (2020, p. 230) considers this 'a moderate approach based on the existing framework of accounting',

in contrast to an approach calling for the calculation and internalisation of 'externalities related to the environment and society'. Indeed, this latter approach marks a break with financial accounting standards in relation to whom the accounting information refers. This is what we turn to now.

Sustainability accounting beyond investors' needs

The 'activism/engagement with practice' of accounting scholars (Bebbington *et al.* 2021, p. 22) has played an important role in devising systems that account for the impacts of firms, well beyond the taken-for-granted needs of traditional users of financial accounting standards. The diffusion of their ideas has been amplified by professional accounting associations (Bebbington *et al.* 2021, p. 7). The literature often takes as the starting point for this, the 1990 report *The Greening of Accountancy*, which asks quite simply 'how accounting and the accounting profession may set about contributing to the urgent process of environmental protection' (Gray 1990, p. 19). Written by the accounting scholar Rob Gray on behalf of the Association of Chartered Certified Accountants (ACCA), the report argues that when it comes to the environment, 'it is obvious the accounting picture is one from which essential elements are missing and, if used as a basis for action and decision, must mislead' (p. 32).

Since then, accounting scholars have often considered that their research 'could be mobilised as a way of encouraging organisational change within the capitalist system' (Adams and Larrinaga-González 2007, p. 334). They have stressed that investors for whom 'profit is not the only motivator' do exist (Gray 1990, p. 39), but that they lack information on which to base decisions. The first institutionalisation of sustainability accounting was indeed championed by shareholder activism, which played an instrumental role in the 1997 creation of the Global Reporting Initiative (GRI) – a highly influential institutional development (Brown *et al.* 2009, Dingwerth and Eichinger 2010). For the GRI, the target users of what is measured are not only investors, and are not reduced to predictive economistic beings. They are 'entities or individuals that can reasonably be expected to be significantly affected by the reporting organisation [...] or whose actions can reasonably be expected to affect the ability of the organisation to implement its strategies or achieve its objectives' (GRI 2016, p. 8) – strategies and objectives that include the '[b]roader economic, social, and/or environmental interests ... [of] employees and other workers, shareholders, suppliers, vulnerable groups, local communities, and NGOs or other civil society organizations' (GRI 2016, pp. 10, 8).

As a set of 'stakeholders-oriented reporting standards' (de Villiers et al. 2022, p. 2), the GRI thus aims to report on the social and environmental consequences of value creation beyond those experienced by investors. While some have shown that the GRI helps to embed sustainability within companies' operations (Adams and McNicholas 2007, de Villiers and Maroun 2018), the consideration of stakeholders' concerns within accounting has also been the subject of criticism. It has been shown, for example, that companies primarily focus on 'the most powerful stakeholders, mainly investors and shareholders, whose right for information is more formally regulated and unguestioned' (Puroila and Mäkelä 2019, p. 1061; see also O'Dwyer 2003, Tregidga and Milne 2006). One of the problems lies in the flexibility given to companies in this accounting exercise – the lack of regulation surrounding impact accounting, in contrast to financial accounting. An increasing number of jurisdictions – including the EU through its non-financial Directive 2014/95/EU – require the disclosure of environmental impacts by large companies through the publication of an annual sustainability report. Yet, potential sanctions for not disclosing such information are much weaker than for financial accounting statements (loannou and Serafeim 2017), or simply non-existent in the absence of mandatory audit or assurance. Consequently, companies could easily avoid signing up 'to indicators which were too demanding' (Milne and Gray 2013, p. 21), especially to indicators that concern the least powerful stakeholders, e.g. civic society (Puroila and Mäkelä 2019).

Another key point is that environmental impacts are not valued in relation to any market price, neither are they made equivalent through a common metric. Rather, they are presented as qualitative and quantitative indicators which, according to Sullivan and Gouldson (2012, p. 60), makes it

impossible for 'investors to make meaningful comparisons'. Moreover, this means that neither the EU Directive nor the GRI can or do guarantee any form of monetary compensation for these impacts, commonly referred to as the internalisation of social and/or environmental externalities (Maechler and Graz 2020). Translating environmental impacts into monetary equivalents has been partly realised through 'natural capital accounting' methodologies developed since the 2010s in the context of the enthusiasm displayed for the economic valuation of nature. With strong support from the European Commission, this way of valuing impacts has been standardised through different natural capital protocols set by a multi-stakeholder initiative (the Natural Capital Coalition), as well as by the International Organization for Standardization (ISO), through its ISO 14008, 'Monetary valuation of environmental impacts and related environmental aspects'. Various studies have been undertaken that borrow their vocabulary from accounting: 'environmental profit and loss' (PwC 2015) or 'true value' (KPMG 2014). These studies calculate yearly environmental impacts – both negative and positive – as a monetary figure and compare this with other economic data. This calculation is similar to the income statement in HCA which 'records realised revenues and how changes and movements in revenues and expenses impact upon the financial position of the firm' (Haslam et al. 2018, p. 301), although it refers to the environmental position of the firm.

However, as Dempsey (2016, 233) has shown, natural capital accounting is 'at once a totalizing mainstream discourse, and one that exists on the margins of political economic life, on the outside of many flows of goods, commodities, and state policies'. As an IFRS Director of Research in one of the Big Four accounting firms (Deloitte, EY, KPMG, PwC) interviewed in our study notes: 'you can theoretically monetise everything. But in the absence of a proper standard made by the proper standard-setter, it makes no sense to monetise'.³ The 'proper standard-setter' when it comes to accounting information, or what is considered as such due to its structural power on global markets (de Villiers *et al.* 2022, p. 13), is the IFRS Foundation. For a long time, however, the IFRS Foundation showed no interest in sustainability accounting was geared to the needs of a wider audience than its financial accounting standards. It was the incremental transformation leading to environmental issues being regarded as meaningful information for investors' decisions that allowed the IFRS Foundation to take up this new mandate for sustainability accounting.

Adapting sustainability to financial accounting users

Making environmental issues 'meaningful' for investors

After the 2008 financial crisis, investors were 'increasingly looking for ways to invest their money in a morally acceptable way' (Leins 2020, p. 72). This led to the rise of investment strategies that consider environmental, social and governance issues (ESG indicators) when valuing companies' stocks. A Green Economy advisor from the United Nations Environment Programme Finance Initiative (UNEP-FI), involved in developing strategies for private finance to tackle environmental challenges, describes ESG as an attempt to ensure that environmental issues influence investors' decisions. Interviewed in our study, this advisor regrets that investors 'do not believe [yet] that [the environment] has a financial bottom-line in terms of risks'. He continues by adding that 'if the risk department sees that water or deforestation [as a] risk affects the profitability or increases the costs for the firms that they are financing, it is then possible to reflect these risks into the evaluation of investments [...] natural capital will naturally become material for investors. It will be natural capital accounting in action'.⁴ In short, while he doubts that investors take the full measure of environmental issues as risks to be accounted for, he claims that those risks are already affecting the maintenance of financial capital and should therefore be reflected in or alongside accounting statements, and, by extension, be the object of provisions made by firms.

Since the early 2010s, new sustainability accounting initiatives have partly aligned their framework with this logic, i.e. with the specific needs of investors as viewed by financial accounting standards. This is reflected in the motto of the US-based Sustainability Accounting Standards Board (SASB): 'created for the market, by the market'.⁵ In contrast to the spirit of the GRI, stakeholders' concerns are reduced to those that may have a direct influence on the financial position of the firm, and thus on the decisions of predictive investors. The GRI has, however, proved resistant to these new rival initiatives: in the top 100 companies by revenue, in each of the 52 countries and jurisdictions researched in 2020 by the KPMG Survey of Sustainability Reporting, 67 per cent are still using the GRI Standards (KPMG 2020). During a conference on the topic, a sustainability manager explained this as a phenomenon of path dependency.⁶ In practical terms, the proliferation of sustainability accounting initiatives has made the field even more fragmented than before. The common argument is that the weakness of sustainable finance could be the result of such 'a patchwork of standards' (Thistlethwaite 2015, p. 973) or, in other words, a lack of standardisation (Sandberg et al. 2009). This assumption has been publicly sustained by newspaper articles such as the Financial Times with reference to an 'alphabet soup' (Tett 2020). Tarim (2021, p. 6) argues that 'reporting forms and indices have not culminated in regional or international standards akin to financial and management accounting standards, such as the International Financial Reporting Standards'. The repeated calls for 'the IFRS Foundation to act to remedy the "complexity" in sustainability standard setting' (Adams and Abhayawansa 2022, p. 2) prepared the political ground for such involvement, echoing the process that led to the creation of the IFRS Foundation and the IASB in 2001 (Martinez-Diaz 2005). Reviewing the responses to a consultation initiated in September 2020, a member of the IFRS Foundation explained that 'the message was clear and loud: there are too many sustainability standards, and a lack of comparability and insurability, which may have led to greenwashing^{7,7} Just as for financial accounting, the IFRS Foundation has rapidly claim to provide 'the global baseline', or the 'de facto global language' for sustainability accounting.⁸ To fall within the mandate of the IFRS Foundation, sustainability accounting must focus on the needs of the users - investors and creditors.

Before the IFRS took up this mandate, there had been a growing trend, since 2015, spreading well beyond private finance, to predict and anticipate so-called 'climate-related risks', framed as a threat to global financial stability (Christophers 2017). The Task Force on Climate-related Financial Disclosures (TCFD) created in 2015 by the Financial Stability Board (FSB) has been instrumental in framing environmental issues and more specifically climate change as meaningful information for investors' decisions. The TCFD published a set of recommendations to financial institutions that officially promote the pricing and disclosure of expected climate-related risks on 'future assets' (TCFD 2017, p. 3). In other words, these recommendations should help identify the extent to which a firm has value at risk because of the impacts of climate change, using arguments that are similar to the advocates of FVA in the early 2000s. It was promised that FVA would 'enhance transparency and improve the quality of information disclosed to investors thereby influencing capital allocation decisions' (Haslam et al. 2018, p. 304). The TCFD stressed that '[w]ithout the right information [i.e. socalled climate-related risks], investors and others may incorrectly price or value assets, leading to a misallocation of capital' (TCFD 2017, p. ii). At the time of writing, the TCFD recommendations have been adopted by 3,100 organisations in 93 jurisdictions.⁹ The success of the TCFD may be explained by the momentum it was able to achieve. It was first proposed in the context of the 2015 United Nations Climate Change Conference (COP 21) in Paris, which emphasised finance-related solutions (Peake and Ekins 2017). The TCFD recommendations published in 2017 engaged a broad movement of market regulators, supervisors and standard-setters, including accounting standard-setters, to develop, each at their own level, the necessary strategies for including climate-related risks in their instruments. In 2019, the TCFD monopolised most of the debates at the annual session of the Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR). Attached to the United Nations Conference on Trade and Development (UNCTAD), this body of experts promotes good practices in accounting and its annual sessions bring the global accounting community together to reflect on the future of accounting. While ISAR – and more generally UNCTAD – are far from powerful bodies when it comes to financial

regulation, these sessions usually give a good overview of topical issues for the future. According to a member of the IASB, the TCFD acted as a 'game-changer' for the way that climate issues were seen: now consensually considered as meaningful information for investors, environmental – and more specifically climate – issues, can fall within the IFRS Foundation's mandate.¹⁰ In the same vein, the Head of Investment and Enterprise at UNCTAD, which convened the conference, explained that 'the discussion took a whole new dimension [after the launch of the TCFD]. Since investors realised that climate is a financial risk, it is also an accounting matter'.¹¹ While different accounting bodies have recently begun to revisit the relationship between accounting and sustainability to address upfront issues of environmental economic transition, they still differ on whose needs should be represented in accounting statements.

Accounting standard-setters and sustainability: accounting for whom?

The IFRS Foundation published its draft sustainability accounting standards in September 2020 – a consultation document of 22 pages (IFRS Foundation 2020). The enthusiasm with which it was received led to an official announcement at the COP 26 by Erkki Liikanen, Chair of the IFRS Foundation, preceded by a speech from Mark Carney, founder of the TCFD. On the same day, a new International Sustainability Standards Board (ISSB) was officially announced. The ISSB is organisationally designed as equivalent to the IASB, for sustainability rather than strictly financial issues, with the intention that the two bodies of accounting experts should collaborate in order to strengthen the connections between sustainability and financial disclosure. As we shall see below, however, the creation of this new body reflects an ongoing tension between sustainability and financial accounting, which explains why sustainability issues have not been directly included into current IFRS standards. To give the ISSB 'a running start', a Technical Readiness Working Group (TRWG) was set up in March 2021. It includes representatives from the IFRS Foundation (which acts as chair), the TCFD, the World Economic Forum (represented by an accountant from Deloitte) and two standard-setting bodies previously in competition with the GRI and its stakeholder-oriented approach: SASB – now merged with the International Integrated Reporting Council to create the Value Reporting Foundation – and the Climate Disclosure Standards Board (CDSB). In 2021 the TRWG published the 'prototype' standards, leading to the first two IFRS sustainability standards being published for consultation in March 2022. It is no surprise that they follow the same logic and principles as their financial counterparts in relation to the audience they address: the information disclosed should be 'useful to the primary users of general purpose financial reporting when they assess enterprise value and decide whether to provide resources to the entity' (IFRS Foundation 2022a, p. 22). The core focus is thus placed on enterprise value, and only indirectly on environmental impacts (Abela 2022). More specifically, the ISSB project addresses the financial materiality dimensions of environmental impacts, i.e. 'information most relevant to investors and other market participants', with the argument that ([s]uch information would more closely connect [when it comes to the audience it refers to] with the current focus of the IASB' (IFRS Foundation 2020, p. 14). The ISSB is therefore widely recognised as an 'investor-oriented sustainability standard-setting' (de Villiers et al. 2022, p. 2).

Before discussing the specificities of this new set of standards, how it will evolve and be implemented to make private finance contribute to the environmental economic transition, it is important to note that there are those who oppose addressing sustainability accounting primarily through the needs of investors. Unsurprisingly, the GRI, which has long held the leading role in promoting impact accounting, first refused to take part in this project. In March 2022, however, an agreement was reached, with a 'two pillars logic': 'a first pillar representing investor-focused capital market standards of IFRS', and a second pillar, governed by the GRI, 'designed to meet multi-stakeholder needs' (GRI 2022). This may allow the GRI to keep its 'global position in producing multi-stakeholder standards for sustainability' (de Villiers *et al.* 2022, p. 1). Nevertheless, the GRI seems to be well aware of the general appeal of sustainability accounting primarily designed for the needs of investors. This may explain why GRI is partnering with another project developed by

a different sustainability accounting standard body: the Corporate Sustainability Reporting Directive (CSRD) of the EU, developed by the European Financial Reporting Advisory Group (EFRAG).

The EU had already declared that 'the IFRS vision cannot in any reasonable timeline meet European needs'.¹² The EU has supported sustainability accounting beyond investors' needs for a long time, although without any direct legal intervention beyond referring to existing private sustainability standards through its non-financial reporting directive. The European Commission decided to address the issue head-on, before the official announcement of the IFRS project, in the context of its 2019 Green Deal (European Commission 2019, p. 15). The CSRD was developed by EFRAG, whose mandate was exclusively focused on financial accounting, to represent European interests in international accounting standardisation processes, that is, in the IASB. Again, this reflects the degree to which sustainability has become part of the mandate of traditional accountants, and thus the way in which financial actors and institutions are becoming increasingly involved in a topic they previously neglected (Epstein 2006, p. 3). In 2021, the Commission approved the main principles of the CSRD and supported the creation of a Project Task Force on European Sustainability Reporting Standards within EFRAG to further develop the standards. Giner and Lugue-Vílchez (2022, p. 8), two accounting scholars who participated in the drafting of the EU CSRD, point out that the greatest difference with the IFRS project 'is the intended audience'. According to the project submitted by the Commission to the European Parliament and Council, '[t]he primary users of sustainability information disclosed in companies' annual reports are investors and non-governmental organisations, social partners and other stakeholders' (European Commission 2021b, p. 2). This approach is also reflected in the double-materiality approach promoted by EFRAG, which should help in 'removing any ambiguity about the fact that companies should report information necessary to understand how sustainability matters affect them, and information necessary to understand the impact they have on people and the environment' (European Commission 2021b, p. 13, my emphasis). Environmental issues are thus accounted for well beyond their relevance 'to investors and other market participants' (IFRS Foundation 2020, p. 14). We will see in the next sub-section that the EU project still has challenges and conventional wisdom to overcome if it is to mark a clear departure from the IFRS project and its investor-driven perspective; how successful it will be in this can only be judged after it has come into force, in 2023 at the earliest.

Finally, the United States remained silent on this issue for a long time, especially during the Trump presidency. However, in May 2021 the Biden administration issued an Executive Order on Climate-Related Financial Risk with explicit reference to the TCFD. As with financial accounting governance (Leblond 2011), the US, more specifically the SEC, intends to develop its own set of standards for sustainability accounting, which should enter into force for the fiscal year 2023. At the time of writing, the SEC seems to be endorsing the spirit of the IFRS Foundation while making no direct reference to it. The SEC proposal under consultation focuses on 'climate-related risks that are reasonably likely to have a material impact on their business, results of operations, or financial condition'.¹³ As SEC Chair Gary Gensler asserts, this proposal 'is driven by the needs of investors'.¹⁴ In other words, the US does not follow the EU's approach, making the EU the only jurisdiction that still (partly) resists sustainability accounting primarily addressed through the needs of investors.

A financialisation of the environmental economic transition

Based on the TCFD, the IFRS Foundation standards account for climate issues only, more specifically the risk a firm is facing due to the impacts of climate change (IFRS Foundation 2022b). The exclusive focus on climate is, at first sight, far from what one would expect from a project officially called 'sustainability reporting', and marks a backward step compared to already existing standards such as the GRI. The IFRS Foundation assumes what its consultation document calls a 'climate-first approach [which] would be able to enlarge its scope in due course' (IFRS Foundation 2020, p. 12). It is true that the project must start somewhere. Moreover, this approach reflects the centrality of climate change in current environmental governance and sustainable finance debates (Neville *et al.* 2019,

Aykut and Maertens 2021). The overarching issue is *how* the IFRS Foundation intends to account for other environmental issues in the future. As things stand, the Foundation has not proposed any practical or technical strategy on how these standards will evolve going forward. Such a strategy might, for example, cover the costs incurred by companies in identifying and disclosing environmental issues, or ways to address the political priorities of the transition to a low environmental impact economy. The EU project, on the other hand, is not only about climate but also about biodiversity and ecosystems, water and marine resources. In the EU case, too, other environmental issues will be added in future, following a political process which involves recommendations from EFRAG experts (including representatives of the EU, business and civil society), and joint approval by the European Parliament and European Council based on a proposal from the Commission. In the case of the IFRS Foundation, such an expansion of issues will be implemented by the ISSB's experts according to their own interpretation of the needs of their users – as seen above, investors. The Executive Director of the IFRS Foundation has stressed during a public meeting on these sustainability standards that if environmental information 'is flowing into the investor needs, then those elements will hit up'.¹⁵ This puts the IFRS Foundation in a position to define, measure and implement its own vision of the environmental economic transition. The details of that vision will be shaped by the presumed needs of others, that is, investors and their expectations (van der Zwan 2014, Muniesa and Doganova 2020). This also means that this project symbolically dismisses politics, and literally discounts science. As Adams and Mueller (2022) have shown, among the 577 submissions to the IFRS Foundation consultation published online, 39 were identified as being submitted by academics, of which 72 per cent were opposed to the proposals on key issues, including the audience to which sustainability accounting refers. To date, these remarks have been simply ignored by the IFRS Foundation.

Furthermore, while IFRS sustainability standards primarily address investors' needs, investors are viewed as able to address much broader objectives depending on the provision of the right information. As long as the information is properly accounted for and the right price signal is given, then markets will allocate capital in a way that is socially optimal for everyone (Christophers 2017; Ortiz 2021). As a financial analyst suggests with much simplification, the standards and the following disclosure should act 'like Adam Smith's invisible hand working through the account [...] to allocate capital in a way that is aligned with society'.¹⁶ This also means, as pointed out by a member of the IFRS Foundation during a public meeting, that 'expected value creation for investors is [considered as] interdependent with value creation for society and [the] environment'.¹⁷ However, the accounting literature has shown the disconnect between value creation for investor and society (Gray 2006). To pretend otherwise, as supporters of the IFRS sustainability standards do, requires erasing the differences between the diversity of interests involved in the environmental economic transition (Newell 2020).

Although the European CSRD is targeting an audience well beyond investors, some experts involved in the project are making similar assumptions about the concerns of stakeholders and shareholders, as pointed out by an EFRAG business representative during an online conference on this issue:

In terms of stakeholders, we do not really see a difference between financial investors and other stakeholders. So, there is more and more convergence of interest between financial investors and other stakeholders. This is not a conflict but a similar movement [...] We should not work on the assumption that financial investors have different interests than other stakeholder groups. They are quite similar.¹⁸

This assumption is reported to be a source of conflict among EFRAG's members.¹⁹ De Villiers *et al.* (2022, p. 10) indeed stress that the 'the double materiality [promoted by the EU] encloses an ideological conflict between the investors' financial interests and other stakeholders' needs'. As another member of the EFRAG Task Force explained, the starting point for making sustainability accounting contribute to a low environmental impact economy transition is to distance ourselves from the idea that stakeholders – including shareholders themselves – have unified views on sustainability issues

and/or on what should be reflected in account statements.²⁰ However, these important debates only exist within the EU. The US indeed shares the IFRS view and it seems likely that 139 other jurisdictions will apply the IFRS sustainability standards.²¹

It should be noted that, although these projects are developed by financial institutions, none of them actually plan to integrate sustainability information into financial accounting standards. Indeed, it precludes provisions for costs as assumed by IAS 37. Given this situation, we need to ask how investors will react to this new information. This article cannot predict the outcome of this situation, but rather proposes avenues for reflection in relation to the current state of global capitalism. In the age of 'asset manager capitalism' (Braun et al. 2021), global finance is dominated by so-called 'passive funds' (Fichtner et al. 2017). The latter have no direct interest in the success or failure of the firms they own, making it difficult to predict how investment flows will react to new information (Braun et al. 2021, pp. 284–5). While some investors publicly expect their asset managers to consider climate-related risks in their assessment (Christophers 2019), their concrete role in the transition to a low environmental impact economy is still unclear. Some studies suggest that asset manager funds may well put 'pressure on corporations to implement genuine long-term strategies that take into account important ESG issues, such as climate change or loss of biodiversity, which most other investors disregard' (Fichtner and Heemskerk 2020, p. 508). Others stress that passive funds simply ignore environmental concerns (Baines and Hager 2022, p. 14). Would the same apply to information derived from international standards for which the IFRS Foundation is responsible? One thing is clear: the three largest funds (BlackRock, Vanguard Group and State Street) cannot be ignored. They collectively own about 22 per cent of the companies listed on Standard and Poor's 500 index (Backus et al. 2021, p. 291). Moreover, they understand the advantages of a limited and investor-focussed audience to which sustainability issues are addressed. A good case in point is the significant lobbying of the asset managers of BlackRock to undermine the EU project and its emphasis on actors other than investors (Reclaim Finance 2021).

As it stands, sustainability accounting is being developed primarily for the needs of investors and against the public interest. From a different perspective supported by the IFRS Foundation, such a public interest will be properly taken into account by investors depending on their decision-making needs. Another trajectory that sustainability accounting could achieve is not only to consider environmental issues from a broader perspective, but also to act more frontally on profits. As Christophers (2021, pp. 2, 12) pointed out, the nub of investment is profit [...] Unless they think that they will profit, capitalists will not invest [in the environmental economic transition]'. An international tax regime coupled with sustainability accounting may be an interesting way forward. However, such a taxation is currently not on the agenda.

Conclusion

In this article, I first scrutinised the processes by which environmental issues have been transformed into a meaningful input for investors' decision-making, consequently falling within the mandate of financial accounting standard-setters. From this starting point, I demonstrated that the IFRS Foundation, the international accounting standard-setter, is developing sustainability standards which contrast starkly with the long-standing attempts to ensure that accounting for sustainability reaches a wider audience than only investors. I have also shown that the European project of CSRD remains focus on a broader audience than only investors. However, I have stressed that this project has the hurdle of conventional wisdom to overcome if it is to resist the increasing trend towards a sustainability accounting standard-setters are becoming increasingly involved in sustainability, an issue they had previously neglected, and the way that they are addressing this issue, primarily through the needs of investors, provide further evidence of a financialisation of the environmental economic transition.

There is plenty of room for further research. Two possible avenues are outlined here. First, the way that investors and passive funds react to the new information derived from international standards for which the IFRS Foundation is responsible is an important issue. Equally crucial is how firms – 'the reporting entity' – will comply with this disclosure framework, which also applies to their 'subsidiaries', as proposed by the standards under consultation (IFRS Foundation 2022a, p. 30). This may be all the more important in cases where provisions for costs would have to be made, e.g. if climate-related risks were to be taken seriously and included directly into financial accounting. Even without this, researchers should pay careful attention, as noted by Leaver and Martin (2021), to the boundaries set on firms by socio-legal constructions and accounting processes. Through 'creative accounting' practices, firms may syphon off their most climate-risky assets into 'non-operable joint ventures or affiliates in which they have an equity stake to try to avoid assuming responsibility for the reporting' (Leaver and Martin 2021, p. 425). In the age of global production networks, characterised by 'the vertical disintegration of firms and the formation of strategic networks', this issue is of tremendous importance (Levy and Palpacuer 2017, p. 336).

Secondly, further research could focus on the future transnational governance of sustainability accounting standards, and link this back to the complex bargaining between financial markets, the EU and the US that occurred in the early 2000s regarding financial accounting standards. While for financial accounting 'the IASB has managed to maintain a delicate balance between American and European interests in devising its standards' (Leblond 2011, p. 443), the IFRS Foundation is not opening the door to the EU principle of double-materiality and its continued emphasis on impact. Conversely, the EU is sticking to that principle, which it sees as coherent with its explicit 'global leadership in setting international standards for sustainable finance' (European Commission 2021a). Rather than being dismissed as a 'bureaucratic turf war', this may well reflect fundamentally different views on the role of finance with regard to sustainability, its definition and its achievement.

To conclude, this article contributes to a lengthy and ongoing debate which ranges across political economy, political ecology, ecological economics, economic geography and science and technology studies regarding the extent to which different forms of valuation contribute to the commodification, capitalisation, or financialisation of nature (Büscher and Fletcher 2015, Sullivan 2017, Bracking *et al.* 2020, Levidow 2020). At first glance, sustainability accounting as devised by the IFRS Foundation does not provide a flow of future returns directly from 'nature' (Birch and Muniesa 2020); rather, and as shown by others (Robertson 2006, Dempsey and Suarez 2016), such financialisation remains largely incomplete. At this stage of the current projects, this article thus argues for a financialisation of the environmental economic transition, rather than a financialisation of 'nature' itself.

Notes

- These meetings cover all the different projects explored in this article. These include meetings conducted publicly by the IFRS Foundation or the European Financial Reporting Advisory Group to present and discuss their projects, or multi-stakeholder meetings dedicated to discussions on the future of sustainability accounting organised by business organisations, professional accounting organisations or non-governmental organisations.
- 2. The main difference between the two is that the US GAAP is considered to be 'rules-based', while the IFRS is considered 'principles-based'.
- 3. Telephone interview: Big Four Executive, Director of IFRS Research (26 November 2019).
- 4. Interview: Green Economy Advisor at UNEP-FI (22 May 2019, Geneva).
- 5. Observation: Mardi McBrien, Managing Director, Climate Disclosure Standards Board, 36th session of ISAR (30 October 2019, Geneva).
- 6. Informal conversation, 36th session of ISAR (1 November 2019, Geneva).
- Observation: Lucrezia Reichlin, Chair of the IFRS Sustainability Steering Committee. IFRS Foundation (14 December 2021, online). Available: https://www.ifrs.org/news-and-events/news/2021/12/trwg-recommendations-for-consideration-by-the-issb/ [Accessed 15 December 2021].
- See: https://www.ifrs.org/projects/completed-projects/2021/sustainability-reporting/video-erkki-liikanenintroduces-the-issb/ [Accessed 10 December 2021].

428 👄 S. MAECHLER

- 9. See: https://www.fsb-tcfd.org/support-tcfd/ [Accessed 28 March 2021].
- 10. Informal conversation, 36th session of ISAR (1 November 2019, Geneva).
- 11. Interview: Head of Investment and Enterprise at UNCTAD (27 November 2019, Geneva).
- 12. Observation: Thomas Dodd, EU FISMA. European Business and Nature Summit (9 December 2020, online).
- 13. See: https://www.sec.gov/news/press-release/2022-46 [Accessed 23 March 2022].
- 14. Ibid.
- Observation: Executive Director of the IFRS Foundation. Creating value and managing impact through integrated sustainability disclosure (2 June 2021, online).
- 16. Observation: Natasha Landell-Mills, Head of Stewardship, Partner, Sarasin & Partners. CDSB conference: Accounting for Climate (5 November 2020, online).
- Observation: Lucrezia Reichlin, Chair of the IFRS Sustainability Steering Committee. IFRS Foundation webinars on Trustees' sustainability-related work (7 July 2021, online). Available: https://www.ifrs.org/projects/completedprojects/2021/sustainability-reporting/ifrs-foundation-webinar-on-trustees-sustainability-related-work/ [Accessed 10 August 2021].
- 18. Observation: EFRAG expert. Creating value and managing impact through integrated sustainability disclosure (2 June 2021, online).
- 19. Interview: Member of EFRAG's Task Force (19 October 2020, Online).
- 20. Interview: Member of EFRAG's Task Force (19 October 2020, Online).
- 21. That is, the 166 jurisdictions already applying the IFRS financial standards minus the 27 EU member states.

Acknowledgements

Many thanks to Jean-Christophe Graz, Valérie Boisvert, Yannick Perticone, and the two helpful reviewers for advice on this article. I also thank the participants of the 'Green Transitions in the Anthropocene' panel at the 2021 SASE conference and those attending the 'Authority and the Making of International Facts' panel at the 2021 EISA conference. The usual disclaimers apply.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This research benefited from the research funding of the Swiss National Science Foundation for the project 'The Transnational Politics of Natural Capital Accounting' [grant number P1LAP1_191279].

Notes on contributor

Sylvain Maechler is a PhD Candidate in international relations at the University of Lausanne. His research focuses on the governance of capitalism in the face of ecological crises, with a special interest on the economic valuation of nature, international standardisation, and the politics of risk management. He has published in the *Review of International Political Economy* and *Revue de la Régulation*.

ORCID

Sylvain Maechler (D) http://orcid.org/0000-0002-4107-2698

References

AAA, 1966. A statement of basic accounting theory. Evanston: American Accounting Association.

- Abela, M., 2022. "A new direction? The "mainstreaming" of sustainability reporting". Sustainability accounting, management and policy journal. doi:10.1108/SAMPJ-06-2021-0201.
- Adams, C.A. and Abhayawansa, S., 2022. Connecting the COVID-19 pandemic, environmental, social and governance (ESG) investing and calls for 'harmonisation' of sustainability reporting. *Critical perspectives on accounting*, 82. doi:10.1016/j.cpa.2021.102309.

- Adams, C.A. and Larrinaga-González, C., 2007. Engaging with organisations in pursuit of improved sustainability accounting and performance. *Accounting, auditing & accountability journal*, 20 (3), 333–355. doi:10.1108/09513570710748535.
- Adams, C.A. and McNicholas, P., 2007. Making a difference: sustainability reporting, accountability and organisational change. *Accounting, auditing & accountability journal*, 20 (3), 382–402. doi:10.1108/09513570710748553.
- Adams, C.A. and Mueller, F., 2022. Academics and policymakers at odds: the case of the IFRS foundation trustees' consultation paper on sustainability reporting. *Sustainability accounting, management and policy journal*. doi:10.1108/ SAMPJ-10-2021-0436.

Aykut, S.C. and Maertens, L., 2021. The climatization of global politics: Introduction to the special issue. *International politics*, 58 (4), 501–518. doi:10.1057/s41311-021-00325-0.

- Backus, M., Conlon, C., and Sinkinson, M., 2021. Common ownership in America: 1980–2017. American economic journal: microeconomics, 13 (3), 273–308. doi:10.1257/mic.20190389.
- Baines, J. and Hager, S.B., 2022. From passive owners to planet savers? Asset managers, carbon majors and the limits of sustainable finance. CITYPERC Working Paper2022-04. London City: University of London.

Bebbington, J., et al., 2001. Full cost accounting: an agenda for action. London: Certified Accountants Educational Trust. Bebbington, J., et al., 2021. Routledge handbook of environmental accounting. New York: Routledge.

- Best, J., 2010. The limits of financial risk management: or what we didn't learn from the Asian crisis. *New political economy*, 15 (1), 29–49. doi:10.1080/13563460903553582.
- Birch, K. and Muniesa, F., 2020. Assetization: turning things into assets in technoscientific capitalism. Cambridge, MA: The MIT Press.
- Boyer, R., 2000. Is a finance-led growth regime a viable alternative to Fordism? A preliminary analysis'. *Economy and society*, 29 (1), 111–145. doi:10.1080/030851400360587.
- Bracking, S., 2012. How do investors value environmental harm/care? Private equity funds, development finance institutions and the partial financialization of nature-based industries. *Development and change*, 43 (1), 271–293. doi:10. 1111/j.1467-7660.2011.01756.x.
- Bracking, S., et al., 2020. Financialization and the environmental frontier. In: P. Mader, ed. The Routledge international handbook of financialization. New York: Routledge, 213–223.
- Braun, B., et al., 2021. Asset manager capitalism as a corporate governance regime. In: J.S. Hacket, ed. The American political economy: politics, markets, and power. New York: Cambridge University Press, 270–294.
- Brown, H.S., de Jong, M., and Lessidrenska, T., 2009. The rise of the global reporting initiative: a case of institutional entrepreneurship. *Environmental politics*, 18 (2), 182–200. doi:10.1080/09644010802682551.
- Brown, J. and Dillard, J., 2018. Sustainability is the new critical? *In:* R. Roslender, ed. *The Routledge companion to critical accounting*. London: Routledge, 427–441.
- Büscher, B. and Fletcher, R., 2015. Accumulation by conservation. *New political economy*, 20 (2), 273–298. doi:10.1080/13563467.2014.923824.
- Chiapello, E., 2008. Accounting at the heart of the performativity of economics. *Economic sociology: the European electronic newsletter*, 10 (1), 12–15.
- Christophers, B., 2017. Climate change and financial instability: risk disclosure and the problematics of neoliberal governance. *Annals of the American Association of Geographers*, 107 (5), 1108–1127. doi:10.1080/24694452.2017. 1293502.
- Christophers, B., 2019. Environmental beta or how institutional investors think about climate change and fossil fuel risk. Annals of the American Association of Geographers, 109 (3), 754–774. doi:10.1080/24694452.2018.1489213.
- Christophers, B., 2021. Fossilised capital: price and profit in the energy transition. *New political economy*, 27 (1), 146–159. doi:10.1080/13563467.2021.1926957.
- Clapp, J. and Dauvergne, P., 2011. Paths to a green world. The political economy of the global environment. 2nd ed. Cambridge, MA: MIT Press.
- Clark, C.E., 2019. How do standard setters define materiality and why does it matter? *Business ethics, the environment & responsibility*, 30 (3), 378–391. doi:10.1111/beer.12351.
- Dempsey, J., 2016. Enterprising nature: Economics, markets, and finance in global biodiversity politics. Chichester: Wiley. Dempsey, J. and Suarez, D.C., 2016. Arrested development? The promises and paradoxes of 'selling nature to save it'.
- Annals of the American Association of Geographers, 106 (3), 653–671. doi:10.1080/24694452.2016.1140018.
- de Villiers, C., La Torre, M., and Molinari M., 2022. The global reporting initiative's (GRI) past, present and future: critical reflections and a research agenda on sustainability reporting (standard-setting). *Pacific accounting review*. doi:10. 1108/PAR-02-2022-0034.

de Villiers, C. and Maroun, W., eds. 2018. Sustainability accounting and integrated reporting. London: Routledge.

- Dingwerth, K. and Eichinger, M., 2010. Tamed transparency: how information disclosure under the global reporting initiative fails to empower. *Global environmental politics*, 10 (3), 74–96. doi:10.1162/GLEP_a_00015.
- Donnelly, S., 2007. The international accounting standards board. *New political economy*, 12 (1), 117–125. doi:10.1080/13563460601068875.

Epstein, G.A., 2006. Financialization and the world economy. Cheltenham: Edward Elgar.

European Commission, 2019. The European green deal. Brussels: European Commission.

- 430 😉 S. MAECHLER
- European Commission, 2021a. Commission puts forward new strategy to make the EU's financial system more sustainable and proposes new European green bond standard. Brussels: European Commission. https://ec.europa.eu/commission/ presscorner/detail/en/ip_21_3405.
- European Commission, 2021b. Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL Amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation (EU) No 537/2014, as Regards Corporate Sustainability Reporting. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0189.
- Fichtner, J. and Heemskerk, E.M., 2020. The new permanent universal owners: index funds, patient capital, and the distinction between feeble and forceful stewardship. *Economy and society*, 49 (4), 493–515. doi:10.1080/03085147.2020. 1781417.
- Fichtner, J., Heemskerk, E.M., and Garcia-Bernardo, J., 2017. Hidden power of the Big Three? Passive index funds, re-concentration of corporate ownership, and new financial risk. *Business and politics*, 19 (2), 298–326. doi:10.1017/bap. 2017.6.
- Gabor, D., 2021. The Wall Street consensus. Development and change, 52 (3), 429–459. https://doi.org/10.1111/dech. 12645.
- Garcia, C., 2020. From financial to 'sustainable' capital maintenance. InterEULawEast: Journal for the International and European Law, Economics and Market Integrations, 7 (2), 229–243. doi:10.22598/iele.2020.7.2.9.
- Georgiou, O. and Jack, L., 2011. In pursuit of legitimacy: a history behind fair value accounting. *The British accounting review*, 43 (4), 311–323. doi:10.1016/j.bar.2011.08.001.
- Giner, B. and Luque-Vilchez, M., 2022. A commentary on the "new" institutional actors in sustainability reporting standard-setting: a European perspective. *Sustainability accounting, management and policy journal*. doi:10.1108/SAMPJ-06-2021-0222.
- Gray, R., 1990. *Greening of accountancy: The profession after Pearce*. London: Chartered Association of Certified Accountants.
- Gray, R., 2006. Social, environmental and sustainability reporting and organisational value creation? Whose value? Whose creation? *Accounting, auditing & accountability journal*, 19 (6), 793–819. doi:10.1108/09513570610709872.
- Gray, I., 2021. Hazardous simulations: pricing climate risk in US coastal insurance markets. *Economy and society*, 50 (2), 196–223. doi:10.1080/03085147.2020.1853358.
- Gray, R., Adams, C., and Owen, D., 2014. Accountability, social responsibility & sustainability: accounting for society & the environment. Boston: Trans-Atlantic Publications.
- Green, J., et al., 2021. Transition, hedge, or resist? Understanding political and economic behavior toward decarbonization in the oil and gas industry. *Review of international political economy*, doi:10.1080/09692290.2021.1946708.
- GRI, 2016. GRI 101: Foundation. Global Reporting Initiative.
- GRI, 2022. GRI IFRS Foundation and GRI to align capital market and multi-stakeholder standards. https://www. globalreporting.org/about-gri/news-center/ifrs-foundation-and-gri-to-align-capital-market-and-multi-stakeholderstandards/?utm_campaign=13081249_Newsletter-March-2022&utm_medium=Engagement%20Cloud&utm_ source=Global%20Reporting%20Initiative&dm_i=4J5,7SDK1,SJE29Y,VRMG7,1.
- Haslam, C., Tsitsianis, N., and Katechos, G., 2018. Financialization. *In:* R. Roslender, ed. *The Routledge companion to critical accounting*. London: Routledge, 301–318.
- Hermann, M.G., 2008. Content analysis. In: A. Klotz, and P. Deepa, eds. Qualitative methods in international relations: a pluralist guide. London: Palgrave Macmillan, 151–67.
- Hines, R.D., 1988. Financial accounting: in communicating reality, we construct reality. Accounting, organizations and society, 13 (3), 251–261.
- Hiss, S., 2013. The politics of the financialization of sustainability. *Competition & change*, 17 (3), 234–247. doi:10.1179/ 1024529413Z.0000000035.
- IASB, 2018. Conceptual framework for financial reporting. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source= web&cd=&ved=2ahUKEwi4uPGwl8r2AhVciv0HHbE0AgUQFnoECA4QAQ&url=https%3A%2F%2Fwww.ifrs.org% 2Fcontent%2Fdam%2Fifrs%2Fpublications%2Fpdf-standards%2Fenglish%2F2021%2Fissued%2Fpart-a% 2Fconceptual-framework-for-financial-reporting.pdf&usg=AOvVaw10B0t0G9Pn5rHrbqVvyfe7.
- IFRS, 2019. IFRS feature: materiality modernised. January. https://www.ifrs.org/news-and-events/news/2019/01/ materiality-modernised/.
- IFRS Foundation, 2020. Consultation paper on sustainability reporting. London: IFRS.
- IFRS Foundation, 2022a. [Draft] IFRS S1 General Requirements for Disclosure of Sustainability-Related Financial Information.
- IFRS Foundation, 2022b. [Draft] IFRS S2 Climate-Related Disclosures.
- Ioannou, I. and Serafeim, G., 2017. The consequences of mandatory corporate sustainability reporting. Rochester, NY: Social Science Research Network. https://papers.ssrn.com/abstract=1799589.
- Jinnah, S. and Morin, J.-F., 2020. Greening through trade: how American trade policy is linked to environmental protection abroad. Cambridge, MA: The MIT Press.
- KPMG, 2014. A new vision of value. Connecting corporate and societal value creation. Amstelveen: KPMG.
- KPMG, 2020. The time has come. The KPMG survey of sustainability reporting 2020. Amstelveen: KPMG International Entities.

- Langley, P. and Morris, J.H., 2020. Central banks: climate governors of last resort? *Environment and planning A: economy and space*, 52 (8), 1471–1479. doi:10.1177/0308518X20951809.
- Laux, C. and Leuz, C., 2010. Did fair-value accounting contribute to the financial crisis? *Journal of economic perspectives*, 24 (1), 93–118. doi:10.1257/jep.24.1.93.
- Leaver, A. and Martin, K., 2021. 'Dams and flows': boundary formation and dislocation in the financialised firm. *Review of evolutionary political economy*, 2 (3), 403–429. doi:10.1007/s43253-021-00057-0.
- Leblond, P., 2011. EU, US and international accounting standards: a delicate balancing act in governing global finance. *Journal of European public policy*, 18 (3), 443–461. doi:10.1080/13501763.2011.551083.
- Leins, S., 2020. 'Responsible investment': ESG and the post-crisis ethical order. *Economy and society*, 49 (1), 71–91. doi:10. 1080/03085147.2020.1702414.
- Levidow, L., 2020. Turning nature into an asset: corporate strategies for rent-seeking. *In*: K. Birch, and F. Muniesa, eds. *Assetization: turning things into assets in technoscientific capitalism*. Boston: The MIT Press, 225–258.
- Levy, D.L. and Palpacuer, F., 2017. Global production networks and the changing corporation. *In:* G. Baars, and A. Spicer, eds. *The corporation*. Cambridge: Cambridge University Press, 336–345.
- Lovell, H. and MacKenzie, D., 2012. Accounting for carbon: the role of accounting professional organisations in governing climate change. *In:* P. Newell *et al.*, eds. *The new carbon economy: constitution, governance and contestation*. Chichester: Wiley-Blackwell, 107–134.
- Maechler, S. and Graz, J.-C., 2020. The standardisation of natural capital accounting methodologies. *In:* K. Jakobs, ed. *Shaping the future through standardization*. Pennsylvania: IGI Global, 27–53.
- Maechler, S. and Graz, J.-C., 2022. Is the sky or the earth the limit? Risk, uncertainty and nature *Review of international political economy*, 29 (2), 624–645. doi: 10.1080/09692290.2020.1831573.
- Martinez-Diaz, L., 2005. Strategic experts and improvising regulators: explaining the IASC's rise to global influence, 1973–2001. *Business and politics*, 7 (3), 1–26. doi:10.2202/1469-3569.1135.
- Maunders, K.T. and Burritt, R.L., 1991. Accounting and ecological crisis. *Accounting, auditing & accountability journal*, 4 (3), doi:10.1108/09513579110003277.
- Mennicken, A. and Miller, P., 2012. Accounting, territorialization and power'. *Foucault studies*, 4–24. doi:10.22439/fs. v0i13.3503.
- Milne, M.J. and Gray, R., 2013. W(h)ither ecology? The triple bottom line, the global reporting initiative, and corporate sustainability reporting. *Journal of business ethics*, 118 (1), 13–29. doi:10.1007/s10551-012-1543-8.
- Moyser, G. and Wagstaffe, M., 1987. Research methods for elite studies. London: Allen and Unwin.
- Mügge, D. and Stellinga, B., 2015. The unstable core of global finance: Contingent valuation and governance of international accounting standards. *Regulation & governance*, 9 (1), 47–62. doi:10.1111/rego.12052.
- Muniesa, F. and Doganova, L., 2020. The time that money requires: use of the future and critique of the present in financial valuation. *Finance and society*, 6 (2), 95–113.
- Neville, Kate J., et al., 2019. Can shareholder advocacy shape energy governance? The case of the US antifracking movement. *Review of international political economy*, 26 (1), 104–33. doi:10.1080/09692290.2018.1488757.
- Newell, P., 2020. Global green politics. New York: Cambridge University Press.
- O'Dwyer, B., 2003. Conceptions of corporate social responsibility: the nature of managerial capture. Accounting, auditing & accountability journal, 16 (4), 523–557. doi:10.1108/09513570310492290.
- Ortiz, H., 2021. The everyday practice of valuation and investment: political imaginaries of shareholder value. New York: Columbia University Press.
- Paterson, M., 2021. In search of climate politics. New York: Cambridge University Press.
- Pattberg, P., 2012. How climate change became a business risk: analyzing nonstate agency in global climate politics. Environment and planning C: Government and policy, 30 (4), 613–626. doi:10.1068/c1179.
- Peake, S. and Ekins, P., 2017. Exploring the financial and investment implications of the Paris Agreement. *Climate policy*, 17 (7), 832–852. doi:10.1080/14693062.2016.1258633.
- Perry, J. and Nölke, A., 2006. The political economy of international accounting standards. *Review of international political economy*, 13 (4), 559–586. doi:10.1080/09692290600839790.
- Power, M., 2010. Fair value accounting, financial economics and the transformation of reliability. Accounting and business research, 40 (3), 197–210. doi:10.1080/00014788.2010.9663394.
- Puroila, J. and Mäkelä, H., 2019. Matter of opinion: exploring the socio-political nature of materiality disclosures in sustainability reporting. *Accounting, auditing & accountability journal*, 32 (4), 1043–1072. doi:10.1108/AAAJ-11-2016-2788.
- PwC, 2015. Valuing corporate environmental impacts. London: PwC.
- Reclaim Finance, 2021. HIJACKED: Exposing BlackRock's grip on the EU's climate finance plans. https://reclaimfinance. org/site/en/2021/06/30/hijacked-exposing-blackrocks-grip-on-the-eus-climate-finance-plans/
- Richard, J., 2012. Comptabilite et developpement durable. Paris: Economica.
- Robertson, M.M., 2006. The nature that capital can see: science, state, and market in the commodification of ecosystem services. *Environment and planning D: Society and space*, 24 (3), 367–387. doi:10.1068/d3304.
- Sandberg, J., et al., 2009. The heterogeneity of socially responsible investment. Journal of business ethics, 87 (4), 519–533. doi:10.1007/s10551-008-9956-0.

432 👄 S. MAECHLER

- Sullivan, S., 2017. Making nature investable: From legibility to leverageability in fabricating 'nature' as 'natural capital'. Science & technology studies, 20 (November), 1–30.
- Sullivan, R. and Gouldson, A., 2012. Does voluntary carbon reporting meet investors' needs? *Journal of cleaner production*, 36, 60–67. doi:10.1016/j.jclepro.2012.02.020.
- Tarim, E., 2021. Modern finance theory and practice and the Anthropocene. *New political economy*. doi:10.1080/ 13563467.2021.1994537.
- Taylor, N., 2022. 'Making financial sense of the future': actuaries and the management of climate-related financial risk. *New political economy*, doi:10.1080/13563467.2022.2067838.
- TCFD, 2017. Recommendations of the task force on climate related financial disclosures. Task Force on Climate-Related Financial Disclosures.
- Tett, G., 2020. The alphabet soup of green standards needs a new recipe. *Financial Times*. Available from: https://www.ft. com/content/b3fadc18-3851-11ea-a6d3-9a26f8c3cba4
- Thistlethwaite, J., 2011. Counting the environment: The environmental implications of international accounting standards. Global environmental politics, 11 (2), 75–97. doi:10.1162/GLEP_a_00056.
- Thistlethwaite, J., 2015. The politics of experimentation in climate change risk reporting: the emergence of the Climate Disclosure Standards Board (CDSB). *Environmental politics*, 24 (6), 970–990. doi:10.1080/09644016.2015.1051325.
- Thistlethwaite, J. and Paterson, M., 2016. Private governance and accounting for sustainability networks. *Environment and planning C: Government and policy*, 34 (7), 1197–1221. doi:10.1177/0263774X15604841.
- Tregidga, H. and Milne, M.J., 2006. From sustainable management to sustainable development: a longitudinal analysis of a leading New Zealand environmental reporter. *Business strategy and the environment*, 15 (4), 219–241. doi:10.1002/bse.534.
- van der Zwan, N., 2014. Making sense of financialization. Socio-economic review, 12 (1), 99–129. doi:10.1093/ser/mwt020.
- Whittington, G., 2008. Fair value and the IASB/FASB conceptual framework project: an alternative view. *Abacus*, 44 (2), 139–168. doi:10.1111/j.1467-6281.2008.00255.x.
- Williams, K., 2000. From shareholder value to present-day capitalism. *Economy and society*, 29 (1), 1–12. doi:10.1080/ 030851400360532.
- Young, J.J., 2006. Making up users. Accounting, organizations and society, 31 (6), 579–600. doi:10.1016/j.aos.2005.12.005.
- Zeff, S.A., 1999. The evolution of the conceptual framework for business enterprises in the United States. Accounting historians journal, 26 (2), 89–131.