

ESG Accounting—The Principles and Principals to Be Served?

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Abstract

This paper examines the evolving landscape of Environmental, Social, and Governance (ESG) accounting, focusing on the need for standardized practices and principles. Drawing on sustainability reports and accounting frameworks, it explores the challenges of qualitative ESG disclosures and the role of regulations and voluntary initiatives. The study analyzes global net-zero initiatives, discussing the complexities of carbon emission trading and estimating externalities. By evaluating a Canadian company's sustainability report, the need for standardized metrics and data quality improvements is highlighted, addressing to the importance of valuation rather than just material verifiability. The paper calls for a re-evaluation of ESG accounting principles and proposes a research agenda to explore accountants' evolving role in stakeholder engagement, opening up the question of accountants being the middlemen in serving potential rather only existing principals.

Keywords

Sustainability Reporting, Net-Zero Initiatives, Pigouvian Tax

1. Introduction

Existing practice in environmental, social, and governance (ESG) accounting has been based on information from sustainability and climate reports of companies. Whether there is a standard way to write and distill information from these reports needs to be investigated. If there is no standard way established yet, the open question needs to be answered: What can make the accounting practice more effectively reflect the spirit of ESG, and what principles and principals is ESG accounting supposed to serve? This paper suggests that these seemingly simple questions have complex answers.

Economists generally agree that addressing ESG concerns is important for

companies. This philosophy has its origin in the concept of Sustainable Development which has its ethical foundation originated in UN Brundtland's Report, also known as Our Common Future (*The World Commission on Environment and Development, 1987*). The concept has been implemented both in macro and micro context in different nations as well as institutions (private or public) over the years. ESG in this respect is the current evolved idea specifically applied to institutional practices and reporting. Accounting practice is now loosely considered as part of an ESG movement. We note that it is a practice that has been hitherto associated with numbers and calculations, based on proper bookkeeping of value estimates of transactions, assets and liabilities.

ESG accounting emphasizes disclosure, often qualitative and changing according to the issues of relevance to a company. To some, change is progressing too "slowly". An example is the US SEC disclosure regulation not requiring option 3. Opinions can vary; however, as one may ask: based on what principle is something being considered as too slowly? The flip side of this question is whether ESG disclosures by companies can be improved. If so, using what principles, among many, should improvements be measured, and what principals does the practice of improving disclosures intend to serve? After all, accountants are agents in the sense of a principal-agent relationship. If accountants are unsure about what principal(s) they serve, they will not be able to do their jobs efficiently. Likewise, economic welfare can suffer dire consequences if these two questions are not being separately clarified. As recent politics in the United States has shown, there is a variety of conflicting opinions on various proposals, all claiming "to improve", but all can become disguised rent seeking endeavors, with total effect of reducing economic welfare instead.

Government and regulatory bodies alike are at a crossroad. In the United States, for example, many companies are making investments in various types of climate solutions now, due to changes in energy prices. While some are good investments because they bring good financial return to the companies, some do not. Government and regulators all want disclosure. In classic accounting practice for private companies, disclosures are for investors to decide whether the companies are making good investments or not. Disclosure is for the purpose of allowing investors to make subjective evaluations of business potentials and prospects for the company. It is prudent for the accountants to stick to that principle because the public investors will then be more informed about how the company's fund will be used, unless the role that accountants are serving is changing. Yet not all principals accept that principle. Therefore, the fundamental economic forces at work must be addressed also.

ESG accounting may not want to broadly use what others are doing or saying. The fact that many countries and markets are moving ahead with sustainability/climate reporting requirements in their implementation does not mean that all are doing it according to the spirit of sustainable development. Furthermore, auditing and accounting are interrelated in that disclosure must be materially

verifiable. This point has been emphatically stressed by United States SEC Chairperson Gary Gensler in a recent interview (CNBC, 2024). As members of Business Schools, our mission is to examine how to make businesses and markets work better, or being understood better, so that better decisions can be made. In other words, how an economy can benefit from the philosophy of ESG being a fundamentally win-win policy that is welfare enhancing. In this short paper, we shall investigate in section I the current ESG accounting practice, describing the typical formats used, e.g. Are they in the form of numbers, or are their statements of narratives attached as an appendix or a side document to balance sheet and cashflow? We shall also use an example of the sustainability report of an energy company in Canada to show how the three components of ESG is typically identified. The role of accountant to be used as an assurance is also highlighted. Section II describes the fundamental forces at work being a macro net-zero drives between governments of the world and a market-driven, private enterprise initiative, reflecting the classical objectives of firm, identifying that as far as the environment aspect of ESG is concerned, it is an externality problem.

The paper will conclude by addressing how ESG accounting will need to be broadened, if not explicitly in terms of estimates, at least conceptually in terms of how to approach the problem of implementation. If it is impossible to do due to our current state of knowledge of practice, then perhaps a re-evaluation of the principal-agent relationships of accountants will be needed.

2. Current Multi-Framework Approach of ESG

A sustainability report is a stand-alone comprehensive document that outlines an organization's environmental, social, and governance (ESG) initiatives, goals, strategies, and achievements. A recent KPMG study (KPMG, 2022) shows that among 250 of the largest companies in the world, 96% reported that sustainability or ESG matters as of 2022. Clearly, the ESG and sustainability reporting have gained popularity in the corporate world and emerged as critical mechanisms for corporations to communicate their environmental and social performance, governance practices, and long-term sustainability strategies to stakeholders. ESG reporting plays a crucial role in helping various stakeholders make informed decisions by providing them with valuable information about an organization's environmental, social, and governance performance. For example, ESG reporting can help investors evaluate the long-term sustainability and resilience of a company and identify potential risks to make more informed investment decisions.

The existing ESG reporting practice is primarily driven by a combination of regulatory requirements, shareholder activism, pressure from broad stakeholders, and voluntary initiatives by the company. Although there is no centralized regulatory framework for ESG reporting at the federal level, the Securities and Exchange Commission (SEC) requires public companies to disclose material ESG risks and opportunities that could impact financial performance in their

annual report filing (Form 10-K) with the SEC. Additionally, state-level regulations, industry associations, and shareholder resolutions have contributed to the proliferation of ESG reporting practices across various industries.

In practice, voluntary reporting frameworks and standards play a significant role in guiding ESG reporting. According to a recent research note (KPMG, 2022), Global Reporting Initiatives (GRI), Task Force on Climate-related Financial Disclosures (TCFD), and Sustainable Development Goals (SDGs) form the most used frameworks for sustainability reporting. Among these, the GRI Standards (GRI, 2024) are widely recognized and used as a framework for ESG reporting. The GRI standards are advocated by an independent international organization called Global Reporting Initiative. The GRI standards provide organizations with a comprehensive set of guidelines on how to disclose their ESG impacts and performance. They cover a range of topics, including governance, labor practices, greenhouse gas emissions, and community engagement. Many organizations adopt the GRI framework to structure their sustainability reports, ensuring consistency and comparability.

The TCFD framework focuses specifically on climate-related risks and opportunities. The framework was established in 2015 by the Financial Stability Board (FSB), aiming at addressing the lack of standardized climate-related financial disclosures (Battiston et al., 2017). The framework provides guidance across four thematic areas for climate-related financial disclosures: Governance, Strategy, Risk Management, and Metrics & Targets. Specific recommendations are outlined in each area for companies to disclose relevant climate-related information in their financial filings and reports (TCFD, 2017). The TCFD framework has gained significant traction globally, with many organizations incorporating its recommendations into their sustainability reports (KPMG, 2022). For example, the Australian Securities Investment Commission's (ASIC) Report 593 Climate Risk Disclosure by Australia's Listed Companies encourages directors of listed entities to consider the TCFD's recommendations (Chua et al., 2022). The progress of the TCFD framework adoption in ESG reporting is currently being monitored by the IFRS foundation.

The SDGs framework is a comprehensive global agenda adopted by United Nations. It consists of 17 goals designed to address major global challenges and promote sustainable development by the year 2030. The SDGs cover a wide range of environmental, social, and economic issues, including no poverty, gender equality, clean water, affordable energy, reduced injustice, climate action, and more. By incorporating the SDGs into operations and the reporting framework, corporations can contribute to positive societal and environmental change. However, various challenges persist in ESG reporting, including the lack of standardized reporting metrics, compatibility, data quality and reliability issues, and the need for greater integration between financial and non-financial reporting frameworks. ESG reporting lacks a generally accepted and standardized framework, resulting in inconsistency and challenges in comparing and

benchmarking organizations' sustainability performance (Brammer, Jackson, & Matten, 2012). Moreover, the accuracy and reliability of ESG data have been questioned due to challenges in data collection and reporting, particularly for intangible aspects such as social impacts and governance practices (Kolk, 2016).

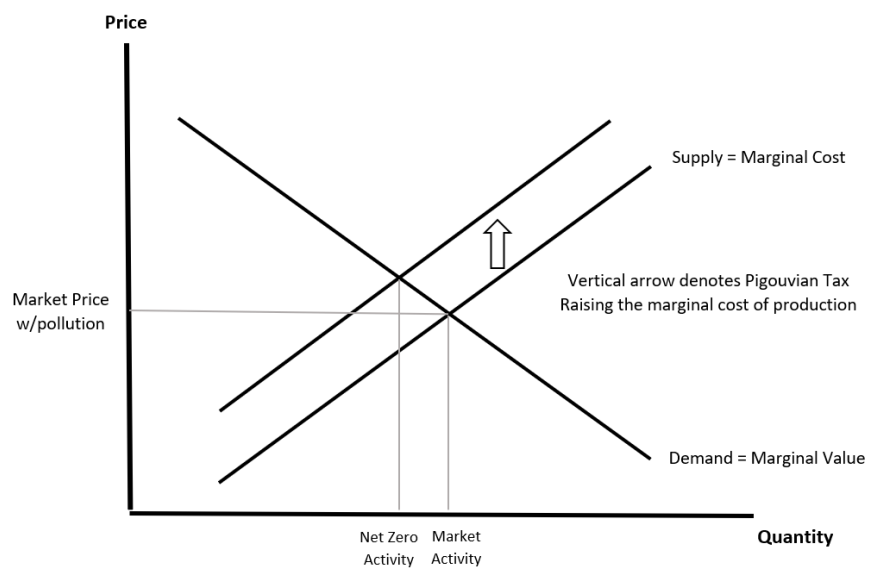
A review of a recent Sustainability Report of a major company in Canada (Suncor, 2023) and how the company has been reviewed by the accounting firm, KMPG suggested the following: A 100-page report contains 27 pages describing the E (environment), 18 pages describing the S (social), and 8 pages describing the G (governance) of the accomplishments and future direction of ESG for the company. The subtopics within each of the three components of ESG were richly diverse while subjectively titled. The Appendix of the report contains a ESG disclosure index, citing 5 frameworks used of which some were explained in the previous paragraphs. It further listed several "Recognition" of scores, naming Bloomberg, CDP, Dow Jones Sustainability Indices, FTSEGood, MSCI ESG ratings, Progressive Aboriginal Relations, Transition Pathway Initiative, to authenticate the creditability of the company's report. The report was assessed by KMPG 3-page "limited assurance" report. Six of the seven subject matters information assessed listed the applicable criteria used being "internally developed criteria", while only one cited a source that can be identified as standard. On the subject matter of total GHG (Scope 1 & 2) emissions, the accounting firm identified the source as The World Resources Institute/World Business Council for Sustainable Development GHG Protocol A Corporate Accounting and Reporting Standard (GHG Protocol) & GHG Protocol Scope 2 Guidance (Supplement). For sum of liquid hydrogen carbon production GHG (Scope 1 & 2) intensity, it was partially based on GHG protocol and partially based on internally developed criteria (p. 91).

3. The Balance between Macro Net-Zero Initiatives and Markets

From the early days of Our Common Future, nations in the world have been striving to find more concrete principles to implement the ideal. Today now a necessity, proposals to cope with climate change issues the world is facing are numerous. The effort reached an important milestone in 2015 with 197 countries signing the Paris Agreement to reduce global warming and build resilience. The code name of Net-Zero is the common mission of this movement, with many countries, cities, and enterprises joining this fight. The agreement set a target of eliminating greenhouse gases (GHGs) by reducing emissions and absorbing carbon dioxide from the atmosphere, with the target date being set to be 2050. Since 2015, numerous "Race to Zero campaigns" have started in the state, city, and local level of nations, attempting to reduce emissions as close to zero and as quickly as possible. The goal was set to limit global warming to below 1.5 degree Celsius change and counting on numerous emitters in countries of the agreement to reach net-zero. The belief is that if GHGs are balanced with an

equivalent amount of carbon removal or reduced emissions, climate neutrality is achievable. This approach of achieving Net-Zero may be called macro as most Net-Zero analyses work with nations' macro estimates (Lai et al., 2023). The important thing to note is that the hierarchical structure of this framework was engineered by nations, at the government level of what was perceived to be desirable, or the principle being used to be considered a good citizen of the world. In other words, the government is the important principal that ESG accounting is serving. That should not be the presumption; however, accountants should be serving whatever entity is hiring them to do the reporting. This is what one should expect in a typical Principal-Agent problem.

For the above reasons, the principle as well as the principal may be too narrow to build an ESG foundation for accountants. Starting with carbon emission trading principles, economists have provided a very clear method of evaluation of the problem of externalities as shown in the diagram below.



The Pigouvian tax has a long tradition that originated in Pigou (1920). The history of thought of this tradition can be found in Banzhaf (2020). Famous economist Gregory Mankiw has formed a Pigou Club to encourage valuation of GHG emissions since 2009 (Mankiw, 2009). As far as we know, the invitation to join is still open, but we doubt any accountants have joined. Why? Most likely, it is because accountants do not see any practical reasons for joining. Yet, there may be reasons for accountants to join also because of the questions raised in this essay: What principles should accountants use for their profession? To what Principals should accountants be supposed to serve? Governments? Economists? Social Engineers? Or the paying client (the paying principal) that an agent is supposed to serve?

Factually, estimating a value for externalities is not an easy task, CO₂ trading in the world has yet to achieve a uniform value, even though various countries

have their own trading market, but with CO₂ emission prices diverged significantly across country border boundaries (See Table III in [Lai et al., 2023](#)). On a randomly chosen date, Oct. 30, 2022, Carbon Credit Prices was 80.78 in the European Union, while China carbon credit was 8.04 in Euro equivalence. Australia was 19.29; while a geographically close neighbor New Zealand was 49.38. How can that be? Carbon dioxide flows freely in the atmosphere across country borders. Moreover, numerous small regional markets such as South Korea, California, as well as some in Southeast Asia simultaneously existed. Even if one focus on United States alone, the social cost of CO₂ depends not on true or close estimates of externalities but on the name of the President of the country! An inter-agency working group provided elaborate estimates of the social costs of GHG, giving USD51/ton for CO₂ as the official recognized estimate. The Trump administration changed the estimate between USD 1/ton and USD 7/ton ([Plumer, 2018](#)).

4. Conclusion and Remarks

This paper raises the question of which principles and principals should be used for ESG accounting. It is an open inquiry for the underlying philosophy on why disclosures are needed in the first place. This fundamental question must be addressed before a professional can ask the question of how to do it. While the profession is far from putting dollars and cents on investment and payoff in ESG, as each can be considered independent components, or being evaluated as a whole. Regardless, a copy-cat-ME-too approach to the problem may not be a fruitful direction for its future development.

Several remarks regarding the Suncor's sustainability report are noticeable regarding the duty of the accounting practice.

1) "The engagement was conducted by a multidisciplinary team which includes professionals with suitable skills and experience in both assurance and in the applicable subject matter, including environmental, social and performance of the Entity".

2) Worthy of explicit mentioning is that only the E (environment) part of the ESG has any standard references, while the S (social) and the G (governance) are all subjective.

3) The principle is founded on "fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior".

4) The accounting firm being explicit about "inherent limitations" in that given "the absence of a significant body of established practice", the report "can result in materially different measurements and can impact comparability".

5) In terms of quantitative approach used, although there were 19 pages of the report identified as Performance Index including footnotes, there were no attempts to link the numbers with the value question that economists would like to know in terms of estimate of social costs.

6) The only dollars and cents type of tracking of performance is on Environmental regulatory fines, Economics (traditional private revenue and costs), Supply chain, Social Investments, and Training and Development.

It is not clear from the reported disclosure itself whether the company's decision makers and/or investing public can evaluate performance to determine that a good or a bad job has been done. The reporting, while being done in a thorough manner, was unclear except for one subject matter that a standardized accounting on GHG total emission can be found. The cite of the source for that standard is a quantity dimension as determined by the GHG Protocol. The Report is definitely materially verifiable, echoing the comment made by SEC Chairperson Gary Gensler's opinion on the regulatory body attitude towards ESG. However, as section II of this essay has shown, future responsibility of the accountants might want to aim for valuationally verifiable.

Many questions remain unanswerable. For one thing, if accountants can do CO₂ emission accounting in terms of quantity, why can't they also do CO₂-capturing accounting as well? For example, the first author in this essay had suggested CO₂ tree-capture accounting elsewhere. For many companies now, CO₂ capturing is the nature of their business. Broader questions can also be asked: why many of the E (environmental) of the ESG appeared to be the more important aspect of the ESG movement even though in terms of weights given to the three considerations, the spirit of ESG arguably should put equal weight on each. Moreover, with many companies now in the carbon capture business, the externalities of the Pigouvian type are positive!

We hope the observation and the questions we post can further set a direction of inquiry that economics/accounting can further study. Accountants today have numerous responsibilities, would it be the case that accountants are serving a role beyond classical reasons of having accountants in terms of helping only their existing principals to make decisions? Particularly, it is possible that accountants now are serving the role of intermediaries, entities that can help their principals for lower transaction costs in their dealings with existing and potential stakeholders of the company. For example, exploring the full potential of the type of new partnerships a company may want to build its ecosystem. That being the case, the principals of the accountants are the many-many that have yet to be identified. We leave these questions as research agenda for our colleagues in accounting and economics to further consider.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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