

How to avoid greenwashing through audits?
A framework for social and environmental assurance

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1. Introduction

Corporate reporting is expanding due to ever-growing demands from investors and regulators for more detailed and better-quality information beyond that included in financial reports, such as the non-financial information in ESG (environmental, social, and governance) reports. They need this to adequately predict and judge corporate behaviour in view of long-term risks and opportunities related to systemic challenges, such as climate change, pandemics, and global income inequality. The demand for this information has driven the development of a significant number of different frameworks, rankings, standards, and protocols for measurement, and reporting in this area has been chaotic and fragmented.

The growing interest in the measurement and reporting of non-financial information, however, raises concerns about trustworthiness and verifiability of the newly-supplied data. Reporting and disclosure of non-financial items without assurance could lead to misleading and distorted reporting and greenwashing both at corporate and at the ESG investing level. But assurance based on outdated or inappropriate methodologies from financial auditing, or assurance using non-scientific methodologies will undermine the credibility of non-financial reporting in general, and ESG reporting in particular. In the financial press and the academic literature, the terms audit and assurance are sometimes used interchangeably despite important differences between the two. Audits check the accuracy of the financial reports, whereas assurance is intended, not to correct the issues in accounting records, but to measure the appropriateness as per accounting standards and principles, and follow its compliance. We find that as we explore the different components of non-financial information and its validity, retaining this distinction is not always straightforward. Throughout the paper we continue to explore the distinct but complementary and sometimes overlapping functions these two important processes seek to fulfil.¹

Based on our ongoing research at the Rethinking Performance Initiative at Said Business School, University of Oxford, we argue that robust assurance is essential to create confidence and credibility in measurements and disclosures of non-financial information and that it is vital in making the entity truly accountable to the wider stakeholder community. We know that auditing of financial measures as reported in the statutory accounts strengthens the accountability of managerial decisions, and the communication of these decisions to equity investors and other market participants. The disclosure of non-financial information widens the scope of this accountability to non-investor stakeholders and other societal participants. Therefore, the assurance of this

¹ To encompass the wide-ranging items covered in this additional form of reporting we refer to it generally as non-financial reporting. But where appropriate we focus on the components of ESG.

information plays an important role in creating corporate accountability of environmental, social, and governance concerns and commitments.

Audit and assurance also play an important role in checking the validity of carbon offset transactions. Many companies and individuals attempt to offset their carbon footprint by purchasing carbon offsets from entities with unvalidated credentials.² Not all of the offsets are *realized* in practice, and the timing of the offsets could also be problematic. A “seller” of carbon credits could recognize all the carbon absorption over a 25 year life from a newly-planted tree at the time of sale rather than when it is *earned*, each year. The timing, measurement, and accountability issues for carbon offset transactions, which are often large and very material, create a new and significant demand for audit and assurance services.

Despite the importance of validating the new corporate measures, only 22% of S&P 500 firms sought assurance on their non-financial reports in 2020 according to Bloomberg data, though the percentage was higher, 60%, for European STOXX600 firms. In our Rethinking Performance Initiative research we go into greater depth on the extent, nature, and quality of assurance of non-financial information for the FTSE 100 companies for the recent financial years. Our review of the FTSE100 shows that the incumbent big players tend to hold the majority of the business in the assurance of non-financial information space. Figure 1 presents the breakdown across the Big4 and show that currently PWC assures more than 45% of the sample, followed by EY that has a little over 25% of the market.

[Figure 1 about here]

When auditing financial statements, auditors can provide two types of assurance. For a “reasonable” assurance engagement the practitioner needs to reduce the risk of assurance engagement to an acceptably low level as the basis for a positive form of expression of the practitioner’s conclusion. In contrast, for a “limited” assurance engagement the practitioner collects less evidence than for a reasonable assurance engagement but sufficient for a negative form of expression of the practitioner’s conclusion.³ In general, limited assurance is held to a lower level of rigour by the practitioner in terms of the number of tests it performs or the size of the sample used to perform the tests.

Our research finds that more than 90% of such non-financial assurance engagements are of “limited” scope, unlike in financial auditing where they are of “reasonable” scope. Where

² An example of this would be high profile individuals flying on private jets to climate change conferences.

³ <https://www.icaew.com/technical/audit-and-assurance/assurance/process/scoping/assurance-decision/limited-assurance-vs-reasonable-assurance>.

“reasonable” assurance is given, it is exclusively focussed on carbon emissions. Where the scope of the audit goes beyond carbon, the level of assurance given falls. Amongst the largest UK firms that seek assurance, all have their scope 1 and 2 emissions assured and about half include scope 3 emissions, too. Yet, 45% of assured firms also include other natural capital measures in the scope of the external review, usually related to waste-water, water consumption, energy use, and energy mix, as well as waste production. And in 30% of cases the audit scope also includes social and governance data, mostly centred around health and safety information, employee satisfaction related KPIs, diversity, remuneration, and community investments. In none of these cases is reasonable assurance provided by the auditor.

This difference between limited and reasonable assurance is not trivial, as it speaks of a general lack of confidence from the auditor’s side in the audit they are giving. Limited audit conclusions include double negatives (“we did not find anything to the contrary of our conclusion”) and are therefore not comparable to the “true and fair” audit statements that are expected to accompany financial statements. It is also telling that auditors feel that they can assure carbon measures reasonably, whereas social and governance measures only to a limited extent. We argue this has to do with the types of measurement that is reviewed by audits – hard, physical measure of objective output vs. soft, process-related measures – a point we will elaborate on later in this piece.

Overall, the limited scope of non-financial auditing presents a dilemma, as external stakeholders expect that, similar to financial statements, ESG metrics should “fairly present” the company’s operations. A mere assurance that auditors couldn’t find blatant evidence of fraud and misrepresentation does not satisfy this expectation. To get to a positive assurance for non-financial assurance we therefore argue that much deeper assurance engagements and assessment are needed. These rely on subject matter knowledge different from the expertise required to conduct financial audits. The assurance engagement must shift from auditing compliance and processes (such as internal controls) to assuring that the outcome metrics “fairly present” the actual impact the company has on the environment and socio-economic conditions in the communities where it operates. The difference between process and outcome measures will prove to be the key to creating a more meaningful audit process for information about the environmental and social impacts of firms.

In addition to the expectation that investors and stakeholders have of “fair presentation” of corporate impact and activities, these interested parties also expect that companies will measure and be accountable, not only for the entity performance under their direct control (“Scope 1” reporting), but also for their suppliers and, quite possibly, customers. If these expectations are to be realized in practice, the auditors for any given entity will have to rely on the auditors of all its

suppliers and distributors. The solution will require that auditors of any company in a value chain, audit and assure not only the GHG calculations but any other “E” or “S” metrics that the company discloses. In this situation a company’s audit could state its own conclusions of Scope 1 actions by the company, plus that it relied on similar “Scope 1” audit and assurance by companies representing xx% of supply and yy% of customers.

This process indicates a vast expansion of auditor responsibilities, particularly if their professional reputations are at stake on such attestations. In these situations external stakeholders would need to decide whether to continue to have expectations for a company’s upstream and downstream relationships. Fulfilling these expectations would create considerably higher costs as it would involve having auditors and assurers perform adequate tests of all supplier and customer audits to form the basis for an opinion. To our knowledge no entity has yet recognised what is involved in auditing “Scope 3” performance up and down a company’s value chain.

2. Output vs. Process from an Audit Perspective

The term ESG has been accepted into mainstream parlance, particularly in the investment community, as a synonym for sustainable business behaviour. We, therefore, focus on ESG as a representative form of non-financial reporting. In reality, however, ESG encompasses three highly different domains, with measures that differ considerably along an objective-subjective dimension, as well as between outcomes and processes. The ESG measures often depend on proprietary methodologies that change over time⁴ and are often highly uncorrelated or even negatively correlated as improved performance for one metric is associated with highly negative performance for another metric.⁵ As Kaplan and Ramanna (2021) comprehensively discuss, ESG’s sub-components are not homogenous.⁶ They reflect different, although not entirely unrelated, components of corporate performance and impact. They rely on different indicators, language, and scientific insight to capture the underlying phenomena. And they are subject to differing levels of regulatory oversight, enforcement and compliance. ESG therefore combines three very different fields of interest that may encompass competing internal priorities and reflect, depending on the audience, different degrees of importance. The Indian sustainability veteran Venkateswaran recently compared ESG with the proverbial image of blind men experiencing different parts of an elephant: “All seize different bits—and all have very different mental images of what they are encountering”.

⁴ Eccles, RG and Stroehle, JC (2019) Social Origins of ESG. (working paper)

⁵ Berg, F., Kölbel, J. and Rigobon, R. (2020). Aggregate Confusion: The divergence of ESG ratings (working paper)

⁶ Kaplan, RS and Ramanna, K (2021) How to Fix ESG Reporting, Forthcoming *Harvard Business Review*.

The ESG elephant poses several challenges for the auditing and assurance functions. Firstly, on an analytical level, E, S, and G focus on fundamentally different units of analysis: The E captures what is existential at a planetary level, the S captures what is preferred at the societal level, and the G captures issues at the entity level. Secondly, and more importantly, environmental, social, and governance issues differ in the nature of their measurements. Environmental issues, for example, can be captured in physical entities, whose changes are objectively measurable as inputs and outputs. Governance issues, on the other hand, often rely on compliance- or process-measures, that require a considerable level of judgment and contextualization to be interpretable. Neither inputs nor outputs are easily determined. Social issues are more hybrid insofar as there are both objective and process-related measures related to this area. The difference between objective input and output measures, and those measures of process is important for their auditability in two respects. Firstly, it suggests that not all issues can and should be audited through the same process in the same audit engagement. Secondly, it suggests that different expertise is needed to review and judge the “true and fair” representation of the underlying information.

For *environmental information*, for example, measurement and data comes from physical quantities of gas, liquid, and solids used and expelled by companies. Firm-level “E” data are likely therefore to be objectively measurable. However, unlike for financial reporting, which will still be guided by the entity concept, understanding the environmental impact across a company’s entire value chain will require reliance on the data from upstream and downstream companies, whose statements will likely be audited, or assured, by other assurance firms. Since public reporting requirements increasingly include considerations of environmental impact, measuring and auditing the physical entities of environmental inputs and outputs of firms will become more important in the future. However, while reporting and measurement frameworks such as The Task Force on Climate-related Financial Disclosures (TCFD) are quickly becoming mandatory for certain jurisdictions,⁷ they are mostly for large companies and focussed on climate change resilience and emissions. Public requirements to audit this data vary. In the UK, for example, Carbon accounting in the form of reporting GHG emissions is mandatory for large companies and is monitored by Streamlined Energy and Carbon Reporting. Companies in scope of the legislation need to include their energy and carbon information in their Directors’ Report as part of their annual filing obligations. However, there is no requirement to audit or use a single framework for this reporting.

A few frameworks include a focus on waste, water use, and biodiversity, although these are now also included in assurance engagements. All of these can be measured in physical entities and can therefore be assured in the same way financial entities can be audited. Indeed, when we look at

⁷ <https://www.ul.com/news/rise-taskforce-climate-related-financial-disclosures-tcfid>

the environmental assurance given in the FTSE100 sample, we find that current assurances, for example, include total energy consumption (in kWh), total fuel and water consumption (in litres), and waste-water produced (in m³). If these entities were then to be tracked and summed up through the supply-chain, as suggested by Kaplan and Ramanna, a conventional entity audit could then verify them and provide customers and/or buyers with assured information about the water, waste and energy footprint of a given product. Entities would then be in a position to provide these cumulative “E-Audits”, which should be of “reasonable” quality, exactly as financial audits.

Understanding environmental impact across an entire supply chain will require valid audit and assurance for each company’s measures and reports, and these will typically be validated by several different auditing firms. This constitutes a major departure from audit of an entity’s financial statements, and indeed challenges the traditional reporting boundaries of the consolidated entity. It would require an audit of all the entities in a supply chain, and this would require certification of auditors of each entity in the supply chain. When companies become more accountable for operations across every one of their supply chains it creates significant auditing and assurance challenges. This exercise would require enormous coordination and trust among all the auditors along each of a company’s value chain. The only feasible solution might be for every supplier to have its audit/assurance placed on a blockchain where the auditors of downstream firms can check the compliance levels of every one of their suppliers. While this may work for compliance metrics, it could only be extended to quantities when uniform agreement exists about what must be measured – such as quantities of GHG.

While environmental measures will be objectively measured or estimated, objective outcome measures for governance (“G”) have yet to be created. Verification of *governance measures* is simpler since they consist mainly of checklists of board personnel inputs, remuneration, and compliance. While good governance is absolutely vital for sustainable management of firms, it is distinct from non-financial reporting. Often, much of governance falls under national legislation and regulation, several components of which will still need assurance to ensure that the legislated and regulated data are valid.

These governance regulations are not new and over time a number of these have been incorporated into requirements through company law and corporate governance requirements. The governance oversight has far reaching implications for the management process, and how these in turn reinforce the environmental and social performance and impact of firms. Good governance is conventionally understood as promoting the importance of establishing a corporate culture that is aligned with the company purpose, business strategy, and promotes integrity and values diversity. In terms of measurement, matters of the board are often central to reviews of governance from

shareholders and other stakeholders and issues such as board diversity, tenure, pay, and independence thereby serve as signals for ethical business management. In most instances, therefore, governance is focussed on due process and compliance and not on the measurement of physical entities, as is the case with environmental measurement. The process-related measurement characteristic has consequences for the auditability of the “G”: Since governance information is part of strongly regulated disclosure, its assurance is to a certain extent already covered by financial audit engagements and compliance exercises. What remains can be included in a broadened review of MD&A disclosure, for which financial audit professionals are well suited.

Assuring the societal pillar, the S-Audit, then, is a hybrid of the two types of measures and audit procedures we discuss above. The “S” straddles issues of existential importance to society and includes measures to avoid the use of slavery, child labour, and fundamentally unsafe and inhumane working conditions that lead to injury, degraded health, and even life-threatening events of employees. It includes both some measures that rely on physical quantities and those that summarize process compliance and performance. The literature on labour standards in global supply chains has identified these differences in “S” already fifteen years ago: Barrientos and Smith (2007) describe that amongst the international formulation of labour rights there are those of “observable” character, and those of “process-related” character – making the former easier to review than the latter.

“S” reporting involves societal judgments about what corporate behaviour and impact are important to measure and disclose, and by extension, audit and assure. External phenomena like the Covid-19 pandemic have heavily exacerbated and highlighted disparity in working conditions, extending far beyond pay to health, safety, opportunity, and insurance. To define due process, “S” issues rely on a mix of voluntary initiatives, global guidelines, and frameworks and legal requirements. This makes their application in S-Audits difficult. These matters are also likely impacted by culture and context, where local norms of appropriateness are combined with global guidelines, such as the International Labour Organization Fundamental Principles and Rights at Work or the UN Human Rights Declaration. The legal benchmarks of social issues can thus be different in different jurisdictions, which makes multinational social and human capital management– like in global supply chains – a challenge. Reviews of the application of these process-related norms have to therefore draw on local knowledge and be much more inquisitive and interpretative, and therefore separate from the outcome-focussed S-Audits. These would review what has been called “observable” in the literature, focussing on number of industrial accidents, health and safety requirements, living wages, working hours, and so on.

Meaningful assurance of the “S” requires competencies that will likely involve skills in sociology and economics, as well as broader expertise in human and social sciences. For the process reviews, assurers will need to be able to read between the lines of narrative disclosure, as much information about social impact is disclosed through text rather than measurement. In the S-Audits, similar to the environmental space, auditors need knowledge of input, output, and impact pathways. Since social issues are particularly pertinent across global supply chains, auditors should have a good grasp and knowledge of global regulations as well as local context, cultural challenges, and national regulation.

Based on the above analysis we argue that G-audits can be facilitated to a large extent by financial auditing where, with some updating and expansion, the skillset and knowledge base are largely complementary and synergistic. However, we argue that where specialist knowledge is required in the fact-checking and outcome analysis of “E” and “S” spaces, specialist, independent E- and S-auditors are required.

3. Who should perform S- and E- Audits?

Taken collectively, the assurance of the ESG and non-financial reports must be a team sport, with experts drawn from engineering, physics, chemistry, supply chain/logistics, economics, sociology, accounting, and more. Specifically, outcome-oriented E- and S-Audits require specialist expertise in natural and social sciences for robust fact-checking and reviews of methodologies. A company must commit to a variety of engagements, including at least one E-Audit and one S-Audit at the organizational level alongside the audit of their statutory reports. Ideally, companies should also commit to periodic process-reviews of social and governance processes, which would require separate engagement and reporting. This would involve a decentralised approach both at the organizational level and beyond, including reviews of the supply chain to ascertain, for example, whether suppliers meet requirements around E-and S-Audits.

E-Auditors need technical expertise and schooling from the natural sciences to review and sense check climate change resilience, carbon emissions, and other environmental impact measures. For example, understanding magnitudes and feasibilities of techniques allows a skilled assurer to judge whether commitments are material, and whether all relevant types of impact have been taken into consideration. Additionally, to assess environmental matters, assurers and auditors need to be able to understand not only input and output measures related to corporate activities, but outcome and impact measurement. Environmental externalities of corporate operations therefore almost always have a relevance at the system level: they contribute to global warming, biodiversity loss, or resource scarcity. The systemic impact is an indispensable contextualization that defines the

relevance and materiality of corporate environmental activity. Financial auditors, without extensive training or industry knowledge, are trained in assessing inputs and outputs of firms, and compliance with the parallel processes that generate these input/output data. They will therefore find it hard to spot gaps in logic, disclosure, and assessment, which elevates the risk of deliberate greenwashing or sloppy environmental reporting.

What does the decentralization of non-financial assurance mean in practice? In practice it plays on the strength of experts who have deep subject specific knowledge and already know how to use existing frameworks of subject matter relevance. It works towards context- and subject-specific auditing. For this to work, the Big 4 and other large public accounting firms monopolising the non-financial assurance space need to be challenged in their current practice and position. While standards for ESG measurement and reporting are fast approaching with the IFRS Foundation's work on the creation of a Sustainability Standards Board⁸, these standards will not include guidance for auditing. Existing voluntary standards for non-financial assurance engagement, like the ISAE3000 from the IAASB and the AA1000 Assurance Standard from the NGO AccountAbility, suggest processes of assurance, yet without recognizing the unique features of each subject area.

We note that assurance of non-financial information in this world of process over substance is heading in the undesirable direction of mirroring financial audit in a top-down approach. If current trends persist we predict that financial auditors will revert to auditing controls and processes without possessing the appropriate skillset. Decentralizing the E- and S-audits and making them independent from G, facilitates the shift of the auditing function from the audit of compliance and internal processes to the assurance of environmental and socio-economic outcomes. This shift works in multifold ways:

1. It allows assurers to concentrate on their field of knowledge,
2. It allows a deeper engagement with measurement of outcomes and impacts (not just inputs and outputs), and
3. allows for a more holistic analysis of how companies evaluate and manage distinct social and environmental phenomena.

This is not to suggest that financial auditors are to remain uninvolved or should be expected to abdicate responsibility. They also have a role in ensuring that the financial information is accurate and true and fair in the context of systemic challenges such as covid, climate, and political change. Considerable work and initiative in this area already exists, and although it has not always gained traction, will continue to play a major role in reporting and auditing. For instance, IFRIC 3 *Emission*

⁸ <https://www.ifrs.org/news-and-events/news/2021/03/trustees-announce-working-group/>

Rights required companies to recognise as intangible assets their rights to emit a specified level of emission as permitted cap and trade schemes. Despite being regarded as a conceptually sophisticated requirement that expressed an appropriate interpretation of existing standards it was withdrawn in 2005 – two years after it was introduced. In part it was felt that there was no urgency from a cap and trade scheme (i.e. political) perspective, and that given it created mismatches from a recognition and measurement bases, the board decided to conduct a wider assessment of the various issues. IFRIC 5 *Rights to Interests arising from Decommissioning, Restoration and Environmental Rehabilitation Funds*, was introduced in 2004 to provide guidance on how a contributor should account for its interest in a fund, and how should the obligation should be accounted for when a contributor has an obligation to make additional contributions. IFRIC 5 continues to be applicable. In the US, FAS 5 discusses the application of contingencies and loss recoveries including contingent liabilities from environmental changes and local community disruptions due to corporate actions. It operates a disclosure system based on whether a loss is probable, reasonably possible and remote. Other standards and requirements similarly continue to make progress.

4. Conclusion

By suggesting separate audit engagements for social and environmental measures, what we call S- and E-Audits, we don't mean to suggest that firms, or indeed financial auditors, should disregard the inherent interconnectedness of environmental, social, and governance issues. On the contrary, we argue that all-encompassing audits are by design less precise and blurred in trying to incorporate and review too many distinct areas of measurement. Separate audits, in turn, should allow organizations and their stakeholders to view corporate externalities more clearly, therefore allowing robust assessments of interdependencies between social and environmental issues.

This does not imply that audits that go beyond the objective output measurement of firms are completely useless. In addition to the discrete and specialist audits and assurances, we suggest that audits are a vital part of the system. However, since they require a significantly larger amount of judgement, often relying on subjective benchmarks, they will need a different process, rely on different skills, and play a different role than objectively verifiable E- and S-Audits.

Reporting of financial and non-financial information can only stay relevant in enhancing accountability of management to the investor and wider stakeholder community and society if this wider community has faith and trust in the assurance and auditing systems in place. Much foundational work is required in both measurements, and the skills and disciplines required to audit the measurements and reporting of non-financial information. Some of this reporting takes the form

of narrative and some of it in the form of measurement and metrics. Either way, there is considerable lack of consistency as a multitude of frameworks, protocols, standards, and formats exist, or indeed companies often develop their own. The assurance space for non-financial information, on the other hand, seems to coalesce around the tools and methodologies of financial auditing. This is often inappropriate, as it does not provide the sufficient subject-matter expertise that would be needed to provide reasonable assurance for non-financial information. As with the measurement and reporting of non-financial information, therefore, much crucial work remains in developing optimal tools, skills, and disciplines required to assure the non-financial measurements and reports, and to enable stakeholders to fully integrate this information with confidence in their decision-making.

Figure 1. *Big Four FTSE100 Market Share, Assurance vs. Audit.*

