Understanding the Sustainability Reporting Landscape and Research Opportunities in Accounting

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ABSTRACT:

I first distinguish the terms economic growth, economic development, and sustainable development. I then discuss the term ESG and why this term is used with respect to the corporation. I follow with a discussion of the shareholder primacy perspective and how this perspective plays a defining role in corporate law, corporate governance, and asset management. I argue that the shareholder primacy perspective is not appropriate for sustainability reporting because when a firm pollutes the environment, reduces biodiversity, or has inequitable social policies, it does not bear the full cost of its action; society and the planet does. Therefore, providing sustainability disclosures that are relevant to investors misses the point that sustainability disclosures are motivated by the desire of other stakeholders to learn about externalities. I discuss the different standard setters in the sustainability space and how accounting and measurement play key roles. I close with a discussion of research opportunities.

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1. INTRODUCTION

A traditional view in economics is that economic growth will lead to economic development that in turn will lead to a better quality of life for people. Metrics that track economic growth include wages per person, gross domestic product, stock market performance, and so on. The idea is based on “trickle-down” economics: as citizens’ wealth grows they buy more goods and services, that helps other people earn money and they in turn, buy more goods and services, and the outcome is a high quality of life for all people in the society. However, economic growth can add or subtract from economic development. As Greenwood and Holt (2014, Chapter 1) point out - if higher per capita (per person) growth results in more tax revenues that are then used to fund parks, roads, and education, then economic growth adds to economic development and the quality of life for people increases. However, if higher per capita growth leads to crowded cities, more air pollution, expensive housing, less green space, more homelessness and more crime, then economic growth subtracts from economic development and quality of life does not improve and can even get worse. Economic development is about improving the lives of people and so unlike economic growth which has a single monetary dimension, economic development is multidimensional and considers wealth along with other factors that impact the quality of life such as access to education, healthcare, leisure time, fresh air, green space, and so forth.

The Brundtland report defines sustainability as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.”¹ The report discusses the interrelated nature of the environment, social welfare, and economic development. For example, giving poor farmers seeds to grow crops could improve their wealth, but if growing the seeds overtaxes shared water supplies that impact biodiversity and other communities

¹ The Brundtland Report was released in 1987: https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf
downstream, and reduces soil quality, then future generations could suffer from a lower quality of life, even when the farmers of today have more wealth. Therefore, a program of giving poor farmers seeds could add or subtract from sustainable development.

The United Nations has expanded on the Brundtland Report and created 17 SDGs (Sustainable Development Goals). The United Nation’s SDGs form the framework for “improving the lives of populations around the world and mitigating the hazardous man-made effects of climate change along with improving the oceans and land use.” The goals can be classified into five “Ps”: people, planet, prosperity, peace, and partnership. People at the UN who created these goals must have taken some organizational behaviour classes at business schools because the SDGs are a really great idea for creating incentives. Locke and Latham (1990) goal setting theory suggests that by creating clear cut goals, people will have a better sense of direction, will engage in more effort, and change their behaviour, with the consequence being that they are more productive. The impact of goals on human behaviour can occur even when there are no compensation-related rewards from meeting the goals. Therefore, by creating the 17 SDGs the UN has created a way for us to measure success (or failure) on the many sub-goals that are required to achieve sustainable development; and by setting clear cut targets the UN can encourage us to change our behaviour so that we achieve the goal more quickly.

Turning to accounting, what does this mean for us? Many of us are interested in studying corporations. When we move from the macroeconomy to the microeconomy, accountants measure economic growth for a company in terms of profits and like economic growth, profits are measured in monetary terms. And like economic growth, growth in profits can add or subtract from economic development and sustainable development. A company

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2 UN’s 17 SDGs: [https://sdgs.un.org/goals](https://sdgs.un.org/goals)

The sustainable development goals seek to direct nations, corporations, non-government organizations, public entities, and individuals to produce a better world for all beings. To do this, the United Nations seeks to reduce poverty, improve living conditions, increase equality, save biodiversity, keep our oceans clean, reduce pollution, and have humans live in peace. Working together will help us meet the SDGs.
growing profits can add to sustainable development when it hires employees and pays them a fair wage, develops products that are healthy for humans, pays its taxes, and improves the natural environment; or it can subtract from sustainable development when it creates air pollution, destroys nature, uses forced labor, and produces products that make us sick.

Therefore, if one thinks about sustainability with respect to companies, one might ask using the Brundtland framework: “How well does the company’s business model meet the needs of society today without compromising the environment and the ability of future generations to meet their needs?” Taking a UN’s perspective, one could ask: “How well does the company’s business model help us meet the SDGs? Which SDGs is the firm moving us in a positive direction and which ones in a negative direction?” Is the company trading-off growth in profits with its sustainability goals, or are growth in profits and sustainability working together as complements? As discussed above, economic development and sustainability are multidimensional. They require us to consider profits along with other factors that impact the quality of life for society as well as the planet.

For accountants, this means that we need to broaden our perspective of what we measure when evaluating firm performance. We cannot just think in terms of monetary units and judge whether the actions of the company are positive or negative based on outcome variables such as sales, profits, or stock returns, because this way of thinking does not reflect the true impact of the firm on society and the planet. As accounting researchers we can improve the relevance of our research by identifying projects that will help us better understand the relation between profits and sustainable development. In addition, instead of our research objective being solely to provide information that is useful to investors, auditors, or management, for making more

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4 For an example of this type of research consider Thomas, Yao, Zhang and Zou (2021) who provide evidence that firms can face conflicting incentives with meeting earnings expectations and reducing pollution. Another example is Fedyk, Hodson, Khimich and Fedyk (2022) who show that artificial intelligence appears to improve audit quality and result in slightly lower audit fees, but ultimately causes the loss of jobs for human auditors.
money, we can also consider the project from a broader lens and ask ourselves whether the research project will provide insights useful for one of the UN’s sustainable development goals. By focusing our minds in this way, we can improve the relevance of our work to society and work together to help meet the United Nations’ Sustainable Development Goals.

II. SHAREHOLDER PRIMACY AND ESG

A common term you will quickly encounter in the corporate sustainability space is the acronym “ESG.” ESG stands for Environmental, Social, and Governance, and it is somewhat different from the SDGs (there are a lot of acronyms in the sustainability space). Why is the term ESG so common, and who invented it, and for what purpose? The source of the term ESG appears to have come from a highly impactful report “Who Cares Wins: Connecting Financial Markets to a Changing World” published in 2004. Kofi Annan, who was the Secretary General of the United Nations, called together financial institutions and other parties to develop guidelines and recommendations on how to better integrate environmental, social, and corporate governance issues into asset management, security brokerage services, and associated research functions. Twenty financial institutions from nine countries with over six trillion dollars of assets participated in the conference, and they produced a document that linked ESG to firm value.

The report essentially states that engaging in ESG-related activities (such as employing more efficient technologies that reduce the firm’s carbon footprint) offers opportunities to improve firm performance, and that not considering ESG related factors could be irresponsible on the part of asset managers or corporate boards because ESG factors could be a source of

5 In addition, after the paper is published the author can submit the paper to the Responsible Research in Business and Management (RRBM) for consideration for the honor roll so that others will learn about the research and its contribution to sustainable development. See, https://www.rrbm.network/rrbm-honor-roll/. An example of how research can be connected to the SDGs is provided by a report on the impact of illicit trade on society. https://www.tracit.org/publications_illicit-trade-and-the-unsdgs.html
Paul-Clements Hunt appears to be the person who came up with term – see: https://www.bloomberg.com/news/articles/2022-12-04/ex-tabloid-reporter-who-coined-esg-label-says-investing-backlash-is-a-plus
risk to the firm. For example, polluting is bad for the environment, but could save costs and hence increase current profits. However, polluting comes with the risk of future regulation, reputation damage that could impact sales, and future lawsuits. Therefore, a firm must consider these ESG risks in its decision-making because they affect firm value. In addition, if stakeholders such as customers, employees, and investors care about sustainability issues, then the firm must consider these issues so as to maximize sales, attract the best employees, and maintain its stock liquidity and investor base. Thus, acting responsibly to, say, reduce greenhouse gas emissions, is good for the planet and good for business since it is valued by stakeholders such as customers. Thus, engaging in ESG leads to production efficiencies, an improved reputation, and a higher market valuation. In other words, it’s a win-win: the corporation that dares to care - wins.

The report discusses the many different players that can be involved (i.e., make money) in the ESG space (see, The Global Compact, 2004, Figure 1). This includes asset managers in their investing decisions, brokerage houses with investment products, analysts in forecasting opportunities and risks, accountants in measuring ESG metrics and disclosing these metrics, auditors in evaluating the quality of these disclosures, and educators in teaching students about the disclosures. Disclosure plays a key role within the ESG space to ensure that people have the information necessary to make good decisions with respect to ESG issues and to keep firms accountable for their actions. As accounting researchers, we can ask questions such as: Do analysts incorporate ESG metrics into their forecasts, and if so, are they useful, and if not, why not? For asset management, does a tilt towards ESG-related issues actually produce higher returns, and if so when, and for what metrics? For governments and pension funds, how have fiduciary duties changed over time or across the world, and how has this impacted corporate reporting? For standard setting, which disclosures are most helpful and least subject to greenwashing?
Furthermore, sustainability reporting opens new avenues for teaching and new job opportunities for our students. There are many different reporting standards, many different metrics, and many different aspects (social vs. environmental vs. climate). Beyond purely corporate reporting, we also have investing and financial aspects such as the creation of carbon credit markets, carbon offsets, and green bonds. As accounting educators, we can help our students better understand, measure, and interpret these disclosures and distinguish real efforts from greenwashing or woke-washing.

Focusing specifically on companies, the link between ESG metrics and company performance has been and will continue to be an important area of research. Various research questions include: Which specific ESG efforts impact future performance? How does including various ESG metrics as factors in management compensation impact the actions taken by the firm, its disclosures, and its impact on the planet or society? What ESG variables are relevant to specific stakeholders beyond investors, such as employees and customers, and why? Which is better: voluntary or mandatory ESG disclosures, and when? Another viable research avenue is in investigating the activities that impede or help progress towards sustainability.\(^7\)

A critical issue in the ESG landscape is whether investing in firms that are “doing good” actually leads to better returns on investment. If they do, then from a shareholder primacy perspective, this makes life a lot easier. To meet fiduciary duty requirements, asset managers had better consider ESG, boards of directors need to focus on ESG, companies should implement ESG, and standard setters should require ESG disclosures because they are value relevant. If, however, ESG activities do not impact future performance, then well, that makes things a bit more complicated. Asset managers will need to be careful in how they describe their investment products and clearly state whether they are offering products that are

\(^7\) For some recent examples, Kepler, Nikolaev, Scott-Hearn, and Stewart (2023) discuss the various conflicts that occur in the healthcare industry, specifically related to disclosures of dialysis treatments; Baik, Even-Tov, Han, and Park (2021) provide insights into conflict mineral disclosures.
Concessionary or non-concessionary. Corporate boards cannot motivate their focus on ESG purely by arguing that investors care about it. They need to instead argue that customers or employees care about it, and so not caring about it could hurt future sales or reduce the ability of the firm to hire employees, and that this in turn will impact firm value, which will lead investors to care about these issues. Thus, it is not because investors directly place a premium on firms that “do good;” it is because other stakeholders care about it, that shareholders care about it. So, if managers can convince other stakeholders through “greenwashing” or “woke-washing” that the firm cares about the environment and people, then that is perfectly in line with what shareholders would want managers to do. So long as these stakeholders are “believers” and do not discover the truth, that is fine.

There are literature reviews that provide insights and answers to the critical question of whether engaging in ESG-related activities improves future performance. Professor George Serafeim is a leading figure in this space. Grewal and Serafeim (2020) and Christensen et al. (2021) have written reviews of the literature and can provide a starting point for understanding some of the work that has been done in this space. The key technical problem is that linking ESG to future performance is difficult because ESG is a broad term: there are different constructs and different situations, and there are self-section issues because many disclosures are voluntary. Thus, the answer to the question, “Do actions to increase ESG improve firm performance?” is: “It depends.” “We hope so, and we can give you examples of successful companies and situations, with the benefit of hindsight, where changing the firm’s corporate culture made a difference.”

However, as accountants, we tend to be left with a slight feeling of unease when reading this research. How many good firms just do not make it and are not even in the sample?

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8 Concessionary investing is where the investor is willing to give up some return, given the level of risk, to invest in the business.
Humans love to drink, smoke, eat junk food, have parties, drive fast cars, go on holiday to faraway lands, and wear fancy clothes. Are the firms who help us do these activities “bad” ESG firms, or are they just providing us with the services we want? Shouldn’t governments stop us from doing bad things, not companies? If a firm does good and investors directly value these activities and the stock price increases as a result, then does this not imply that the stock will earn a lower future return not a higher future return? Why would this company be a good investment in a diversified portfolio? Wouldn’t the bad-guy stock offer a better future return assuming the stock price already reflects investor negative sentiment? Exactly how much ESG does a firm need to do to get a premium? A token effort is unlikely to have much impact, but a big effort could fail. If we are talking about ESG risk, what exactly does “risk” mean? Are we talking about diversifiable or non-diversifiable risk? Why would diversifiable risk be priced? Perhaps we are talking about investor recognition and stock liquidity, and if so, how do these factors impact prices? For us academics this is all deliciously ambiguous and unsatisfactory. Obtaining clarity should keep us all busy for years.

However, I would like to pause here, and take a step back to ask you the following question. Should we really be focused on how sustainability impacts firm value? I thought the whole reason for sustainability reporting was to help society and save the planet? Aren’t we missing the point if we only care about how sustainability reporting can make us more money by improving firm performance, reducing firm risk, and increasing firm value? Are we all going in the wrong direction and asking the wrong questions? Or at least are we taking such an indirect route to saving the planet that we are getting lost in minutia along the way?

III. THE PLANET’S PROBLEMS

We can think of two major problems for the planet created by human self-interest. There are probably more, but these are the two I will discuss. The first are externalities. An externality is an indirect cost to an uninvolved third party that arises as an effect of an individual
or a firm’s activity. Examples include greenhouse gases and air pollution. Cars create pollution when they are built, and consumers create pollution when they drive cars. However, the cost of pollution is not fully reflected in the price of the car. The impact on human health from these emissions is borne by insurance companies, hospitals, governments, and society. They are not all financial: if people die earlier, have difficult lives because they cannot breathe, and children do worse at school because they have ingested toxic chemicals and their brains do not work well, then this is not fair or equitable. In addition, the impact of greenhouse gas emissions on global warming or climate change is even more indirect; it is felt in the form of more extreme weather, droughts, and floods in locations far from where the pollution occurs. Climate change may have less impact on current generations (who get to vote on actions taken now) and more on future generations (who are not available to vote). The same can be said for plastic packaging. Society and not the firm pays for the cost of collecting the garbage and when the garbage is dumped and ends up in rivers and oceans, then the fish and other innocent creatures bear the cost of our dirty ways. They die, biodiversity declines, and we seem to only care to the extent that the fish or bird is available for us to eat, or if not edible, cute, or may one day provide a drug that cures a disease for us humans that are consequences of our stressful lifestyles of driving fast cars, sitting at our computers, and responding to text messages. One has to ask: if all species were given a democratic vote, would they vote to keep the human species as the world boss or would they kick us off the planet? I think we could persuade the dogs to vote for us, cats would require our best negotiators, but beyond that, I think all other species would agree that the planet would be better off without us.

A second and related problem is the tragedy of the commons. Most natural resources (e.g., fishing areas, grasslands, forests, groundwater, etc.) that are consumable are replenishable, but only when consumed at a sustainable rate. The tragedy of the commons occurs when each individual acting in self-interest has an incentive to over-consume the
resource. This happens because the individual gets the full benefit of the overconsumption and suffers when others overconsume, whether or not he or she overconsumes. For example, taking too many fish from the ocean will increase profits for the fisherman, but if the fish do not have time to reproduce then there will be less fish in the future. The fisherman realizes that overconsumption today is bad for the future but if he fishes less, and other fishermen still overconsume, then he will lose anyway. It’s a race to the bottom; everyone over-consumes, there is a depletion of the common resource, and this is detrimental to society as well as the environment.

An important step in solving externalities and the tragedy of the commons problems is to require reliable measurement and timely disclosures of activities (see, Dietz, Ostrom, and Stern 2003). It requires tracking activities (how many fish are in a particular location, how much water, what is the air quality). It also requires firms to report on what they are consuming, what they are releasing into the atmosphere, and how their actions are affecting humans and other creatures. If companies collect and start measuring this type of information, then people in these organizations become aware of the impact and start caring. Furthermore, employees can be rewarded and punished based on metrics identified, and other stakeholders (government agencies, lawyers, watchdogs) will be able to determine whether the corporation is acting responsibly (i.e., not overconsuming a shared resource, or not over-polluting). If the firm is acting irresponsibly, we can hold the company accountable and take actions (regulation, withholding investment funds, not purchasing their product) and so influence their decision making. As accountants, we do not need to understand the science, but once the data is being captured, we are very good at summarizing and recording it, and auditors are very good at verifying and assuring it. These are all critical and very important functions. Clearly-defined metrics and audited disclosures are key to solving externalities and the tragedy of the commons.
IV. WHO IS GOING TO SAVE THE PLANET?

Corporate Boards

Can we expect corporations to solve the planet’s problems on their own? Perhaps voluntary reporting based on what the company itself thinks is important is sufficient? Perhaps we can ask directors to consider these factors and compensate top executives based on these factors, and then we will hit an equilibrium where companies do the right thing and we solve the CO\textsubscript{2} emissions problem, we cut back on plastic garbage, we clean up our rivers, and we help the poor. So, can we rely on corporate boards to implement strategies that are good for the planet and good for society?

In a conventional corporation, there are shareholders that invest their capital and elect directors to act in their interest. Most companies in the US are incorporated in Delaware, and under the law, directors have a duty of care and a duty of loyalty. A director must act on an informed basis, and they should put the interests of shareholders ahead of their own interests. The board of directors typically delegates the day-to-day operations to the CEO and executive team, who then go on to hire employees, who buy inventory from suppliers, sell the product to customers, and build physical locations in communities.

Now suppose that a board decides to invest in ESG-related activities. Actions could include improving work conditions for employees, increasing training, ensuring there are equitable and fair work conditions in the supply chain, and producing inventory in an environmentally friendly way with no forced labor. Suppose an investor sees these ESG actions and believes they are a waste of money. Can such an investor sue the company and stop the firm from engaging in these ESG activities? The answer is no – because of the business judgment rule. Courts do not want to second guess management’s thinking at the time of making these decisions. The courts would check that the directors were performing their duties carefully (i.e., ticking procedural boxes) and loyally (i.e., were not getting kickbacks or
engaging in self dealings), but beyond that, the courts do not want to get involved. It’s okay to be a bad businessman or businesswoman, so long as you think the decision was a good one at the time that you made it. Even if it seems a very poor one in hindsight.  

Under corporate law, directors manage the business to maximize the returns to shareholders. Therefore, investing in ESG is based on the idea of enlightened self-interest. Even though investing in ESG activities today may reduce current profits and even hurt stock prices, in the future, when everyone realizes how the ESG is benefiting the company, profits will increase, and the stock price will rise. Thus, the board can say they are taking ESG actions to create “long-run value” even if they secretly do not think the benefits will go to shareholders for years to come.

However, the business judgment rule does not hold in extraordinary circumstances. For example, when a company receives a takeover offer, then the courts expect directors to choose the decision that maximizes the current stock price. Enlightened self-interest no longer holds. A recent example is Elon Musk’s takeover offer of Twitter. Many employees did not want Twitter to be acquired because Elon Musk stated that he would stop remote work and fire a large number of employees. Other stakeholders (customers) could also prefer Twitter to keep its original Twitter top executive team and their corporate values. However, the directors must recommend that Twitter shareholders accept Elon Musk’s $44 billion bid if it is the one that maximizes the current value of the firm.

So much for caring about employees. How can stakeholders really trust a corporation to care about society and the environment when the directors have a legal obligation to

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9 Alexander (2017) provides a great discussion of problems with the current legal system and why its focus on shareholder primacy and pursuing profits cannot be relied on to allow corporate boards to pursue broader sustainability goals. He discusses why B-Corporations are necessary from a legal point of view, to address these structural concerns.

10 The term long-run value is one that academics often find perplexing. What is long-run value? Value is the present value of future cash flows. Does it mean future cash flows? Long-run value has an assumption of market inefficiency; investors are asleep right now, but when they wake up, in a few years’ time and realize what great ESG projects the firm has been engaging in, then the market value will go up.
maximize shareholder value? And when it matters most, for example when the company is in financial distress or the company has a takeover offer, they bail? It is almost laughable. There are actions that companies can take to legitimately show that they care about stakeholders. Various states have benefit corporation legislation and companies can also obtain B Corporation certification that requires the company to commit to considering stakeholders and adjusting their legal framework to account for stakeholders. However, it is naïve to think that given the current state of corporate governance law, companies will implement and prioritize sustainability and societal issues on their own. The board couldn’t credibly commit to this even if they wanted to (at least as far as many cynical accounting academics are concerned).

**Asset Managers and Pension Funds**

If boards of directors have their hands tied in terms of encouraging companies to take steps to help society and the planet that do not create shareholder value, perhaps instead we could turn to shareholders and ask them to demand that managers act in socially responsible ways. After all, the owners of shares are people, and people benefit from factors other than having a large bank account. People typically value having fresh air to breathe and a cleaner planet to live on. In addition, people invest in the stock market so that they will have money when they retire to enjoy life. Money is not very useful if you are dead from poisoning or have a low-quality life due to health problems from living in a toxic environment created by the very companies that you invested in. So, can shareholders vote to have firms clean up their act and will this solve the problem?

The answer is, well, not very easily. In sophisticated capital markets, there are multiple layers of professional money managers between the humans who provide the money and the corporations engaging in activities. Humans typically save for retirement by investing money

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11 For a nice summary of B-Corporation certification, see “The Struggle for the Soul of the B Corp Movement,” Financial Times, by Anjil Raval, February 18, 2023. [https://www.ft.com/content/0b632709-afda-4bdc-a6f3-bb0b02eb5a62](https://www.ft.com/content/0b632709-afda-4bdc-a6f3-bb0b02eb5a62)
with pension funds or with asset managers, who then invest in the actual stocks or put their money in investment products, such as an ESG fund that then invests in stocks. Therefore, in many cases it is the asset manager and not the human investor who must vote on sustainability issues raised at shareholder meetings. Under corporate law, asset managers and pension funds have a duty of care and loyalty to their investors. Can these intermediaries select stocks based on characteristics other than to maximize the expected return to the portfolio given the level of risk that an investor is willing to accept? Can the asset manager vote in support of a proxy that will reduce firm value but help society? The answer is generally no. Shareholder primacy rules supreme and these intermediaries should not select stocks based on their personal utility function. These intermediaries can offer investment products that exhibit certain characteristics (e.g., green energy stocks) but only if this objective is clearly stated in the marketing information and investors understand they may be making a risk or return trade-off. This also holds for public pension funds. ERISA rules state that pension funds must act with a duty of care and this has been interpreted as meaning focusing on maximizing returns – that is, only non-concessionary investing is allowed. Therefore, solving the planet’s problem is unlikely to come down to the decisions made by asset managers or pension fund managers.

**ESG Rating Agencies**

If we cannot rely on asset managers, then perhaps an investor should directly invest in stocks that have good ESG ratings? Unfortunately, using ESG ratings is unlikely to lead to

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12 The rules on fiduciary duties and whether ESG factors can be considered changes back and forth depending on whether democrats or republicans are in power. During the Trump administration, pension funds were not allowed to consider ESG factors in investment decision making. When Biden came to power, he sought to change this restriction. The Department of Labor recently clarified that pension managers can consider the financial benefits of environmental, social, and governance factors, but the focus is still on maximizing the financial returns to retirees. See [https://www.dol.gov/newsroom/releases/ebsa/ebsa20221122](https://www.dol.gov/newsroom/releases/ebsa/ebsa20221122). However, the Senate voted against this change (democratic majority but two democrats voted with the republicans), but then Biden is expected to veto it. [https://www.cnbc.com/2023/03/01/esg-bill-senate-vote-on-overturning-federal-rule-on-esg-investments.html](https://www.cnbc.com/2023/03/01/esg-bill-senate-vote-on-overturning-federal-rule-on-esg-investments.html) As academics we scratch our heads. How can beneficiaries to a pension fund be worse off when the pension fund manager considers more information (e.g., climate considerations or governance) when selecting stocks with the objective of maximizing returns? Politics.
investing in stocks that result in a cleaner and more equitable world with happy plants and animals. Many ESG rating agencies also have a shareholder primacy focus when they rate stocks. For example, MSCI ESG ratings are designed to help investors understand “ESG risk and opportunities and integrate these factors into portfolio construction and management processes.” This stated objective is very different from “saving the planet from pollution and garbage, stopping wars, and encouraging world peace.” The ratings typically adjust for industry and so the cleanest oil-producing firm could end up with a higher ESG score than a company investing in electric vehicles that has poor social values. In addition, ESG ratings consider all three factors, E, S, and G, and integrate these into one score. Rating agencies can differ in the weights they assign to each factor, and rating agencies can interpret the same information differently or penalize firms where they find no disclosures on a particular E, S, or G input. So even with the same information set, firms can end up with different ratings from different rating agencies.\textsuperscript{13}

Perhaps investing in ESG indices or ESG ETFs is the way to go? Sorry, that’s not going to help either. ESG indices are concerned with “tracking error” so that the S&P500 ESG Index tracks the S&P500 Index. Thus, the composition of the indices are very similar, with a slight “tilt” towards firms with higher ESG scores. You might think this would mean selecting firms with good scores, but the indices are selected based on industry weights, and then within industries, the value-weighted ESG score. So, Exxon is in the indices because it is large and does not have a terrible industry adjusted ESG score, while Tesla is not in the index because it was pulled down by a very low “S” score relative to other auto firms in its industry group. Please read the fine print before assuming that investing in an ESG index is investing in firms doing good. ESG rating agencies are not going to save the planet.

\textsuperscript{13}See, Berg, Kobel, and Rigobon (2022) who provide a comparison across six prominent ESG rating agencies and discuss determinants that drive rating agencies to score firms differently.
The Government

Net zero means “cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests.” The objective set by the Paris Agreement is for us humans to get to net zero by 2030 or 2050. Missing these deadlines by 60 years, scientists hypothesize, will lead to irreversible damage (melting of the ice caps, islands covered in water, drastic weather, loss of biodiversity, and so forth). If society wants to reduce CO₂ emissions, then perhaps a more efficient solution is to have the government implement rules to force companies to reduce emissions and create products that do not emit greenhouse gases. Why should we expect companies to voluntarily engage in activities to increase social good when, as discussed above, they have clear obligations based on current laws, to maximize shareholder wealth (i.e., shareholder primacy).

This perspective is in line with the often-quoted comment from Milton Freeman’s 1970 New York Times editorial:

“There is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud.”

What a simple and clear solution: if people want to reduce carbon emissions and save the planet then we need to change the rules of the game such that rules and regulations are introduced that force companies to do the right thing. How would this work? People will vote in politicians who support their view that we need to reduce greenhouse gas emissions, the politicians will then pass rules to ensure that companies do the right thing and then government


bureaucracies such as the Environmental Protection Agency will monitor and enforce the revised rules of the game.\textsuperscript{16}

Well let’s just think about the quote for a few minutes and consider how governments operate. There are three branches or pillars of government: (1) the Legislative Branch that is composed on two dominant political parties - Republicans and Democrats that debate and vote in new legislation; (2) the Judicial Branch which in the US is the court system (e.g., US District Court, the Circuit Court of Appeals and at the very top the US Supreme Court) that interpret the laws that are passed by Congress; and (3) the Executive Branch which consists of the President, Vice President, and Cabinet (15 advisors who heads various government bureaucracies). There are many more government bureaucracies and the head administrators are appointed by the President (e.g., the SEC, FDA, IRS, Department of Labor, and EPA). The government bureaucracies implement and enforce the rules and monitor whether companies are complying with the rules. However, they cannot make up new rules. Countries allocate the power differently between each of these pillars, but the idea in the US is that the system will work if the power is allocated optimally.\textsuperscript{17} Politicians decide on a law, the law is implemented by the bureaucracies; and the court system is the way the laws are interpreted and applied in individual cases. If you do not comply with the rules, then you go to the impartial court and the rules may be more clearly interpreted by the judge, or you may get punished and be required to pay damages for breaking the law.

So now that foreigners in the room have a basic understanding of the “rules of the game” let’s go back and ask, how efficient is the US system in implementing change? The US

\textsuperscript{16} Do you think if Milton wrote the same editorial today, some CEO would say “Hey Milt, rather than profits, do you mind if we increase non-GAAP earnings instead?” As accounting academics we would like more specificity: Is it current profits, future cash flows, “economic” earnings, or “sustainable” earnings? The quote is vague but the performance measure makes a big difference to incentives.

\textsuperscript{17} Balance of power is key. Too much power to politicians and you get dictators who can act in their own self-interest. Too much power to state bureaucracies and you get repressed people living under ridiculous rules. Too much power to the courts and you no longer have a democracy but judges interpreting the laws and deciding on public policy and a system in political decay (see, Fukuyama (2014)).
citizens in the room are probably already laughing. The founding fathers of the US wanted to make it really difficult to make changes so that if a rogue (e.g., English supporting) president ever got in power, he would have a hard time returning the US to English rule, and it would also be hard for him to change the rules and become a dictator. However, the cost of this safety valve is that it is very difficult and time-consuming to pass any type of social justice legislation in the US. For example, England outlawed slavery with the Slavery Abolition act in 1807 and within 30 years slavery was abolished (1833). In contrast, the first anti-slavery legislation in the US was Pennsylvania's Gradual Abolition Act of 1780 but it took the US eighty more years to outlaw slavery, with the 13th Amendment to the Constitution abolishing slavery in 1865, a full 30 years after England. Thirty years is a lifetime for a slave. Time makes a difference. None of us are here for the long run. The 19th Amendment giving women the right to vote was introduced into congress in 1878 and made into law in 1920. It took 40 years to give women the vote. That is not very fast.¹⁸

In addition, because humans that were born in America believe in the idea of individual freedom, the political system has intentionally made government bureaucracies weak relative to the powers we observe for these bureaucracies in other countries. Whenever a state bureaucracy (such as the SEC) wants to change a rule, then they need to get a lot of feedback on the rule from the public (send it out for comments). If people do not like the implementation of the rules, then the courts can come in and determine that the rule is illegal, or politicians can

¹⁸ A recent example of how the courts can change the rules of the game to give themselves more power and slow social and environmental outcomes is the Supreme Court’s decision in West Virginia v. EPA. Legal minds argue that this decision expanded the legal theory called “major questions doctrine” (A judicially created anti-regulatory requirement that an executive agency cannot tackle significant new problems unless a statute provides “clear congressional authorization”). In the past, the Courts have allowed bureaucracies such as the EPA more flexibility in terms of how they implemented congressional rulings. The Clean Air Act of 1970, explicitly authorized the EPA to define the best system of emission reduction for each industry. The judges argued that “operating more cleanly”, only allows the EPA to set standards and so if the EPA wants to reduce the use of coal (the dirtiest source of energy), then they need to go back to Congress and get clearer instructions (which is time consuming and has an uncertain outcome). For a nice discussion, see Jeff Turrentine, July 7 2022, The Supreme Court’s EPA Ruling Explained, at: https://www.nrdc.org/stories/supreme-courts-epa-ruling-explained
vote out the change. Furthermore, politicians select the people who are in the top positions in the bureaucracies, so as soon as the government changes, so does the emphasis of the bureaucracies. Thus, even if the majority of voting humans in the US decide to behave altruistically and vote for politicians who will implement changes that will cost the voter money, it can be difficult and time-consuming for these changes to make it through the system. Therefore, it is questionable to assume that the rules of the game can be changed easily such that companies will cut emissions, make their products recyclable, stop mining, and so forth, particularly when 2030 is less than ten years away, and 2050 is less than thirty years away.

Another concern is that Milton’s quote assumes that the players of the game cannot influence the rules of the game. However, this is not necessarily the case. Large corporations typically have a lot of money, and managers acting in the “shareholders interest” can responsibly spend time investing in lobbying efforts to avoid rules that hurt profits. Sierra club wants to stop the building of big warehouses because of the broad environmental and health impacts of truck pollution for poor communities living close to these warehouses. However, if local governments see an advantage to obtaining more money from companies by having the warehouses in their jurisdiction, Sierra club’s concerns will not necessarily win. A coalition led by the Center for Food Safety—including the American Bird Conservancy, Pesticide Action Network, and beekeeping and pollinator groups filed a petition asking the EPA to stop allowing the sale of genetically modified seeds that have a coating of pesticides on the outside because they kill insects, reduce bird populations, and generally sound like a bad idea. The answer was “No can do.” Large corporations have clever lawyers who can outwit underpaid government agents and can create a system fixed in their favor. Furthermore, in the US, it is legal for corporations to make donations to politicians. Legalized corruption. Do corporations

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donate money to political candidates that have policies consistent with the firm’s interest, or do corporations influence the policies adopted by politicians? Many large US corporations donate money to both parties, suggesting that they are paying for political influence. Special interest groups also have undue influence on the political system and can lobby to meet the needs of pharmaceutical firms, insurance firms, etc. The individual voter does not have time to go and lobby, and so rules can be passed that are not made with the objective of creating a more equal and happier society.

In summary, the government can, in theory, change the “rules of the game” such that corporations could be forced to behave responsibly. Indeed, there are many examples where governments have changed the rules such as the creation of national parks, making it illegal to discriminate in the workplace, requiring safety standards on products, and product labelling. However, due to the many checks and balances of the political system, the weak bureaucracies, the ability to use the court system to fight against the implementation of legislation, gerrymandering, voters acting in their own self-interest rather than in the interest of future generations or the planet, and the ability of corporations to influence the political system in their favor, it seems a little optimistic to assume that by 2030 or even 2050, the US government will have led the charge in requiring corporations to drastically change the ways that they operate their business so as to improve sustainability for the planet as a whole.

**Accountants and Standard Setters**

This leads us to the final group – could it be that we, the accountants can save the planet? We all know that people start caring about things that are measured. Without...
measurement, it is hard to know what to improve or how to create incentives to improve or punish for non-improvement. If we (the accounting discipline) want to play a role in having companies clean up their act and act sustainably, then there are some critical steps that need to be considered. We need to decide (i) who is the audience for the sustainability reporting? Once that is decided, then (ii) what should be measured and disclosed and where; and (iii) should sustainability reporting be voluntary or mandatory and who will enforce the rules? There are quite a few standard setting bodies in the sustainability space and they differ in how they address (i), (ii), and (iii).

The first decision is the audience. Are the reporting standards for all stakeholders (customers, employees, regulators, the community, etc.) or are they for investors (i.e., shareholder primacy)? This leads to the concept of financial materiality, impact materiality, double materiality, and dynamic materiality. **Financial materiality** is providing information that is value relevant for investors. Financial materiality focusses on the costs the company is incurring to reduce their environmental impact and also disclosures of potential risk they may face from the environmental changes that could take place. The company could also disclose “opportunities” – profits – that could be made from taking certain environmental actions.

**Impact materiality** is focused on providing disclosures that are relevant to stakeholders that tell us about the impact the firm is having on the environment, the economy, and society. The concept of **double materiality** combines financial materiality with impact materiality and refers to providing sustainability disclosures that are relevant to investors but also adds on disclosures that relate to the company’s impact on the environment or the environment’s or society’s impact on the company that are not financially relevant but are relevant for stakeholders. For example, customers could be interested in buying products that do not create a large carbon footprint, do not use child labour, and do not breach privacy issues. In contrast,
investors could be indifferent to these issues and only concerned with the firm maximizing profits and firm value.

You might be thinking to yourself: but if the company has a large carbon footprint, uses child labour and breaches privacy issues, then once customers find out about these issues, they will be less willing to buy the product (which hurt sales), and there could be litigation (which hurts profits). Therefore, even if investors are indifferent, they should care about these issues because once stakeholders learn about these issues, the issues become financially material. This is the concept of dynamic materiality, where something that is not financially material could become financially material over time, as people learn about the issue and start caring about it. You can think of the concept of dynamic materiality being the backdoor way to get companies to report on impact materiality when they are only required to report on financial materiality. The time period is vague, kind of like the concept of long-term value.

Once we identify the users of the sustainability report, we can move to (ii) and determine what to measure. Here is where standard setters such as SASB (Sustainability Accounting Standards Board), consider the industry that the firm is operating in and the critical environmental, social, and governance issues for that industry. For example, an important issue for a pharmaceutical company is product safety and drug effectiveness, whereas a technology company will be more concerned with privacy issues, and a manufacturer with its supply chain and the use of child labour. All industries could be concerned with employee welfare and their carbon footprint but the relative importance likely differs.

Finally, for (iii), how much power does the standard setter have? In this space most standards are voluntary and so compliance can be low for two reasons: (i) the company does not have the systems in place to measure the required data (e.g., does not know where suppliers obtain their electric energy and whether it is from coal or solar) and (ii) the company does not disclose the measure because it will make them look bad (e.g., discrimination lawsuits, security
breaches, and discoveries of child labour). Nondisclosure therefore could be due to
greenwashing or it could be a genuine data problem for the company. Another aspect of power
is assurance. Are any of the numbers audited so that they can be relied on? Audits can be
limited in scope and so not very reliable or they can be comprehensive and so may be
reasonable to rely on. Should the standards be voluntary or mandatory? For comparability and
reliability, mandatory is the way to go. For political acceptance and getting something actually
done, voluntary may be better.

Currently compliance is voluntary for all standard setting bodies. The standard setters
taking a stakeholder perspective include the GRI (Global Reporting Initiative). The GRI is
moving to industry-based standards on a range of E, S, and G issues – these are the broadest,
best thought-through, and most comprehensive standards. We also have the CDP (Carbon
Disclosure Project) that provides a survey that companies complete that gives details of their
carbon footprint. Many companies do not publicly disclose the survey. The newly formed
European Union’s ESRS (European Sustainability Reporting Standards) will have a
stakeholder and double materiality perspective. These standards are proceeding at a quite rapid
pace (relative to the pace we observe in the US) and will be enforceable.

In terms of standards written with investors in mind (i.e., a shareholder primacy
perspective) we have the TCFD (Task force for Climate-related Financial Disclosures). Companies provide metrics on their carbon emissions and also scenario analysis on the impact
on their operations from the earth increasing in temperature by 2 degrees Celsius. The SASB
provides industry-focused metrics on E, S, and G. The SASB has now merged into the ISSB
(International Sustainability Standards Board). The ISSB’s intention is to deliver a
comprehensive global baseline of sustainability-related disclosure standards that provide
investors and other capital market participants with information about a company's
sustainability-related risks and opportunities to help them make informed decisions. The ISSB
appear to be basing its standards on the SASB framework and the TCFD. The ISSB could have potentially enforceable standards since they are under the realm of the IFRS. We also have the Securities and Exchange Commission (SEC), which has proposed carbon disclosure standards that are similar in form to those required by the TCFD. If, these rules are passed, (and the timeline is uncertain) then they would be enforceable.

To clarify the difference between the focus on stakeholders versus shareholders and the disclosures that will be produced, consider a soft drink manufacturer such as Coca Cola. An important environmental issue for them is the recycling of plastic bottles. From a financial materiality perspective, we would expect Coca Cola to tell us how much they are spending on recycling facilities, how many bottles are recycled, the extra cost they incur using recycled materials rather than new materials, any lawsuits that involve them paying clean-up costs, and so forth. However, these disclosures would miss out on the most important information that stakeholders would want to know under a double materiality perspective. From an environmental and social materiality perspective, we would want to know how many bottles do not get recycled and how many end up in rivers, lakes, and oceans. What action is Coca Cola taking to stop these bottles damaging the environment and impacting biodiversity? In addition, what about in poor countries that have no recycling facilities? What is Coca Cola doing in regions where there is no recycling? Are they fighting or supporting legislation that is trying to cut back on plastic usage? These would seem to be far more relevant questions than the number of bottles that are potentially recyclable or a picture of an NGO with a boat cleaning plastic out of rivers.

If standard setters only focus on financial materiality, we could end up in a type of “catch 22” situation. Financial materiality can create a paradoxical state. Suppose we ask:

22 In the Book Catch-22, the question was: “Do you want to get out of combat duty?” If the answer is no, then the soldier keeps fighting. If the answer is yes, the response is, only the insane can get out of combat duty and only insane people want to engage in combat duty. Therefore, if you answer yes (that you want to get out of combat duty), that proves you are not insane, and therefore you must keep fighting.
“Are stakeholders interested in knowing the number of plastic bottles tossed into the river?” If the answer is no, then the sustainability report does not disclose the information. If the answer is yes, then if the standards being applied in the sustainability report have a focus on investors (e.g., SASB or ISSB standards), then the next question is, “is the disclosure financially material?” If the answer is no because investors do not think it is financially relevant, then the information will not be disclosed even though the information is relevant to stakeholders such as people who fish or to customers who care about water quality. How could this information not be financially material? If the company will not have to pay for its environmental impact because nobody is tracking whose bottles are getting thrown in the river, or the government is too disorganized to take action, then causing this externality (bottles in the river) will not have financial repercussions for the firm.

Thus, it is irrelevant whether you answer yes or no based on stakeholder interest because once financial materiality is used as the attribute to determine disclosure then the information is no longer relevant. You could argue from a point of view of dynamic materiality: if the company discloses this information, then some customers who care about fish and clean water may stop buying the product and then it becomes financially relevant. However, if the firm never discloses the environmental impact, so that the customer never finds out, then the information will never affect sales, and so will not become financially material. What’s a manager supposed to do?

Therefore, providing sustainability disclosures for investors and having the focus be on financial materiality misses the point of sustainability reporting. These reports are for customers, employees, watchdogs, regulators, and other stakeholders. Customers for example, are very likely to want to know how much carbon emissions were released producing a product. To this end, the E-Liability approach developed by Professors Bob Kaplan and Karthik Ramanna (Kaplan and Ramanna 2021) where carbon emissions could be tracked throughout
the supply chain so that each product sold includes a label of CO$_2$ emissions, could be highly relevant to customers. Would investors demand this information because it is financially relevant? It seems less likely, since such information could increase, decrease, or have no impact on firm value. The point is that stakeholders beyond investors want information on externalities and tragedy of the common problems, which, by definition, are situations where the firm is not bearing the costs of its action. The cost is being borne by society and the environment, so these are exactly the situations where the information is not financially relevant. If it was, it probably would already be reported within the financial reporting system.

Burzillo, Schaffer, and Sloan (2022) find that the release of sustainability reports has no impact on stock returns. Their evidence suggests that investors do not find the information financially material. Should we be surprised by this result? Not if companies are providing these reports to stakeholders such as customers and employees. Could these reports contain information that may eventually become financially relevant but currently are not anticipated to be relevant by investors. Yes, that is a possibility since price impact equals financial impact multiplied by the probability. However, investors are not the only ones impacted by what a firm does. Money is not the only metric to measure the quality of life. We all know that there is a certain amount of money that people need to have to feel safe, to have enough food, and to live in peace. However, at some point, the relation between money and happiness is flat.

Sustainability Reporting is not focused on money and profits; as accountants, we need to change our mindsets and think of different measurement systems when considering environmental and social impacts.

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23 The measurement approach is focused on measuring the total “cradle-to-gate” carbon footprint of products and services sold. The E-liability Institute aims to help companies and other organizations implement this accounting measurement system: [https://e-liability.institute/about-e-liability/](https://e-liability.institute/about-e-liability/) See also Reichelstein (2023) for more on carbon cost accounting.
V. CONCLUSION

In summary, information processing costs limit a consumers’ ability to show their preferences for sustainability through purchase decisions. Investors are limited in their ability to reveal their preferences for sustainability through their investment decisions. Government regulation is limited in its role in sustainability due to weaknesses of the political system. We, accounting educators, accounting practitioners, and auditors, on the other hand, have the skills to measure and disclose, and the skills to provide assurance. As accounting academics, we understand the influence of disclosure and the impact of different measurement rules. This all means that there is an opportunity to influence sustainability reporting, as it is still in the early stages. It is at a similar stage to the early days of financial reporting in the 1920s. At that time, there were no rules, and there was much disagreement regarding measurement systems. It is the same with sustainability reporting: there is still a lot of disagreement about the best way to measure and report greenhouse gas emissions, recycling, and measuring equity and inclusion. Many of these variables cannot and should not be measured in dollars, but this does not mean we should not try to identify ways to measure these variables and do it better.

Storytelling and narratives have always been important to humans. It sets us apart from other animals, it is a way for us to communicate with each other, to make sense of the unknown, and to help us bond with each other. Shareholder primacy is a story, it is a very popular, strongly held belief, but it is not based on any fundamental truth. In the 1900s, when corporations were set up, the government dictated that they had to work for society; over time, the legislation and law moved more and more towards the shareholder primacy view. I think it is important to recognize that we, the accountants, developed the concepts of profit and owner’s equity and so we bear some responsibility for the state of the world. We created these concepts that got everyone focused on making money for themselves, and now we need to
make up a new story. We need to broaden these concepts to consider stakeholders beyond investors, and the company’s impact beyond monetary impacts.

As accountants, we are hardly the ones that are going to be on the frontlines leading the environmental crusades. It does not matter whether you believe corporations should clean up their messes, or whether you believe that humans play a role in climate change. It is not a matter of judging what is going on. Our role is measurement. Our strength as researchers is that we understand the impact of measurement on incentives, we understand the strengths and weaknesses of voluntary and mandatory disclosures, we know about different methods of disclosures, the role of information processing costs, understand the incentive effects of setting goals, the role of auditors, and how to define quality. We also have grappled with ideas like how to define the boundaries of a corporation and how to consolidate information. People used to view it as impossible to aggregate different elements included in the financial statements. How can we add up the value of inventory measured at cost to accounts receivable measured at net realizable value? The same aggregation issues exist in sustainability reporting. These may be difficult problems, but this is what makes these issues fun to study. We have a lot to offer if we embrace sustainability reporting and play a role in encouraging a stakeholders’ perspective.

Examples of research questions that we could examine are the following. For firms that report sustainability metrics, how comparable are they over time, and how comparable are they to peers? Are there better ways to evaluate a firm on sustainability than ESG ratings? How would we do this? Can we develop measures of greenwashing so we can compare the quality of disclosures? Are these metrics useful for predicting future environmental actions? How do the characteristics of the management impact sustainability reporting? Does diversity within corporations make a financial difference and does it have a societal impact? How can sustainability metrics be incorporated into incentive compensation? Should they be, how
would we measure success? What about auditing the disclosures? When does it make a difference? Is the answer highly contextual? More specifically, how do we get better and more comparable metrics on greenhouse gas emissions? What is the best way to disclose these metrics so they are meaningful to stakeholders? We need to move beyond the motivation for our research being primarily to inform investors.

Accountants may not be the ones inventing the new gadget that will sell millions of copies. Our role is to measure the value of sales and the cost of the gadget. The role that we can embrace in the future, is letting people know how much CO₂ was created producing that gadget, how the raw material used in the gadget impacted biodiversity, how using the gadget impacts the environment or society, and whether we can dispose of the gadget and reuse all of its components. Providing this information will help us better understand the full impact of the gadget on the world and in the process, hopefully lead to better decision-making for planet earth.

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