ESG for Institutional Portfolios[1]

Abstract: This white paper examines Environmental, Social, and Governance (ESG) issues in the context of institutional portfolios that include alternative investments, such as private equity, hedge funds, and real assets. We also examine ESG as an expression of the broader concept of stakeholder capitalism. The goal of the paper is to provide a framework for understanding issues related to ESG investing through an objective lens grounded in theoretical and empirical economic analysis. We summarize a large body of academic research on ESG and consider how these results might apply to risk and return in institutional portfolios and specific alternative investments. We also propose a new model for evaluating potential nonpecuniary benefits related to ESG characteristics that provides for evaluating trade-offs in ways consistent with fiduciary responsibility. Our conclusions suggest that much of the popular narrative around both pro-ESG and anti-ESG viewpoints is not well-informed by theory or evidence. In particular, we document that ESG factors do provide value-relevant information to investors, but the effects on asset returns and valuations are modest. Furthermore, investors should expect long-run returns to be *lower* on average for investments that rate well on ESG criteria. Rapidly evolving ESG reporting considerations create ambiguities that are magnified in the alternative investment space because of more limited information on private companies. One practical conclusion of our analysis is that expectations for ESG measurement and reporting should be "right-sized" to fit smaller companies and investment firms because of the potentially large data collection and reporting costs. Overall, we emphasize that investor expectations and regulatory requirements should carefully consider the cost-benefit tradeoffs to ESG mandates for alternative investment vehicles.

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[1] This report derives from the work of the Institute for Private Capital's Research Council and academic researchers affiliated with UNC Kenan-Flagler, The Kenan Institute of Private Enterprise, and the Institute for Private Capital. It draws on an extensive analysis of ESG and stakeholder capitalism conducted by the Kenan Institute available here. A list of contributing authors is available as an appendix.

Executive Summary

The adoption of environmental, social, and governance (ESG) frameworks has exploded over the last decade. In many ways the surge in ESG has coincided with an increasingly popular opinion that businesses need to expand their assessment of how various stakeholders are affected by corporate operations. While a welcome paradigm shift for critics of shareholder primacy, the concept of stakeholder capitalism conjures vastly different problems, prospective solutions, and desired outcomes for different populations. The controversial broadening of a business's mandate beyond profit maximization to account for its impact on customers, suppliers, employees, and societal issues, such as climate change and income inequality, is an exceedingly complex task. As an increasing number of businesses grapple with the adoption of ESG frameworks and stakeholder capitalism's tenets – along with the inevitable trade-offs between competing stakeholder groups such adoption brings – public and private sector leaders alike need guidance.

While this is a multifaceted issue for all types of companies and investors, it is even more complex in the "alternative investments" space, which encompasses private investment funds and direct investment in assets that are not publicly traded. For example, significant effort is required to assess the full-spectrum ESG attributes of a public software company, but it seems entirely out-of-scope to assess such factors for an over-the-counter currency correlation swap in the portfolio of a macro hedge fund. In many cases, the fundamental ideas behind ESG lose meaning. Consequently, the range of investments and complexity of structures in alternative investments can make the problem of measuring and reporting many ESG characteristics tremendously subjective, difficult, and costly.

Based on our analysis of this topic, we believe that jettisoning shareholder wealth maximization as a single corporate objective is not a feasible solution. Rather, incorporating the nonpecuniary preferences of shareholders while simultaneously acknowledging their limited impact will provide the best outcome. Along with this approach comes a renewed appreciation for the role of government policy in achieving broad societal goals that private markets cannot realistically address. Accordingly, our approach is to provide a clear framework for the optimization problem facing corporate decision-makers and institutional investors in an economy with investors who value more than just financial returns.

We also evaluate what can be expected from private sector adoption of the optimal solution. In short, we find that investor preferences toward ESG factors that are reflected in corporate actions will lead to better societal outcomes. However, the staunchest advocates of stakeholder capitalism and ESG investing will likely be disappointed by what private sector market forces alone can achieve. It is important to note that our analysis is consistent with – and, in fact, determined by – the fiduciary responsibilities of corporate directors and officers.

Key Takeaways

1. The creation of "win-win" stakeholder-focused solutions is just traditional profit maximization. When considering win-win opportunities, such as meeting consumer demand for socially responsible products, the ESG and stakeholder capitalist framework is, at most, a lens through which shareholder primacy can be more efficient. This is the established model and should not be controversial.

2. When no clear win-win solutions exist, the only feasible model still examines trade-offs through the lens of shareholders' preferences for societal benefits. More specifically, shareholders can, and many do, care about a range of other stakeholders but at the same time must balance these preferences with financial gains.

3. Confusion about takeaways (1) and (2), and their embodiment through ESG investing, stems from two sources:
   - Not differentiating traditional profit maximization from the well-documented valuation premium generated by investors who consider ESG factors.
   - Not understanding that returns to investors, and society, will come from both a change in investor preferences for ESG as well as the ultimate premium investors are willing to pay for companies with ESG characteristics they like.

4. Substantial clarity about the returns from ESG investing can be achieved by considering a simple two-by-two framework where we evaluate pecuniary and nonpecuniary factors versus investment horizon. In the short run (Transitory Period), appreciation of ESG benefits for both pecuniary and nonpecuniary considerations will generate above-average investment returns. In the long run, however, investors valuating nonpecuniary ESG benefits should expect to earn below-average investment returns. This comes from the simple fact that, in the long run, nonpecuniary benefits are available to investors only by paying a premium for certain companies, which must then be reflected in lower expected returns. The opposite is true for companies with undesirable nonpecuniary characteristics – they will trade at a discount and earn higher long-run returns. Or more simply put, in the long run, investors valuing companies that rate highly on ESG factors are paying more for a dollar of future income (e.g., higher price-to-earnings ratio), and so expected future returns must be lower.

	Transitory Period	**Long Run**
Pecuniary Benefits (Value): A company initiates ESG-related corporate actions that result in larger and/or safer cash flows.	Equity returns will be above average as the company generates unexpectedly high (and/or less risky) cash flows.	Equity returns will be average for new investors because prices already reflect expectations of better ESG-related cash flows.
Nonpecuniary Benefits (Values): A company initiates ESG-related corporate actions that do not result in larger or safer cash flows but are still valued by investors.	Equity returns will be above average as investors bid up the stock price because of the desired nonpecuniary ESG attributes – thus creating a so-called "greenium."	Stock returns will be below average for new investors because they are paying a premium for nonpecuniary benefits.

5. Our model has specific implications for investor and management decision making. Most importantly, a crucial implication of investors valuing nonpecuniary company characteristics is that profit maximization is not the same as maximizing shareholder welfare, or even, wealth. In other words, managers need to consider how certain actions that **do not** improve cash flows can still positively or negatively affect stock valuations. These actions will include activities that affect other corporate stakeholders. Consequently, optimal ESG implementation involves investors and corporate managers determining what nonpecuniary factors are most valuable for a particular company and then focusing their efforts accordingly. There will be a trade-off implied by valuations that determines the set of activities companies should undertake. We show that our model properly characterizes the long-run ESG decision-making process because any alternative model suggesting more or less ESG activity will be suboptimal and thus violate fiduciary responsibilities.

6. In practice, the magnitude of valuation "greeniums" associated with various ESG activities can vary substantially. This implies that the optimal amount of ESG activity for a particular company will be limited in the (many) cases where greeniums are small. This will disappoint ESG advocates who hope

that the framework can deliver large-scale solutions for some of the bigger issues facing society (e.g., decarbonization and climate change).

7. Current frameworks, such as ESG measurement metrics, are not sufficient to support a clear delineation of both trade-offs as well as win-win solutions for businesses and shareholders. This is especially challenging for smaller businesses and investors in private and other alternative assets with less available information and relatively high costs of compliance.

Introduction

We start our analysis by acknowledging that ESG investing has become a controversial topic in some circles and has rapidly emerged as a new front in the U.S. "culture war." It is important to state upfront that this analysis does not seek to take a pro-ESG or anti-ESG stance. Our goal is to provide objective analysis based on our reading of the extant literature and our own knowledge of investments – especially alternative investments. In fact, ESG advocates and opponents will identify findings in our analysis that are both supportive and counter to their claims. Throughout our analysis, we examine ESG factors as they relate to the decisions of corporate managers and investors. We have framed our analysis within the broader notion of "stakeholder capitalism," a model in which business decisions explicitly consider the impact on a broader set of corporate stakeholders. We do this because we see ESG and stakeholder capitalism as two sides of the same coin; in many ways ESG investing is an expression of stakeholder capitalism as a framework for considering how to make decisions towards a broader objective than pure maximization of financial returns.

Is ESG a Scam?

In May of 2022, after Tesla was removed from the S&P 500's ESG index, tech titan Elon Musk famously tweeted "ESG is a scam. It has been weaponized by phony social justice warriors." So, was Musk right? **Yes, no, and maybe.**

Let's start with, **yes**. There is ample evidence that ESG has provided incentives for companies to undertake "greenwashing" whereby they make claims of performance related to ESG factors but do not actually change operations. Likewise, investment vehicles have been fined and even closed because of apparent false claims regarding their investment strategies following an ESG-focused policy.[2] In this sense, there does appear to be a "scam" aspect to ESG. However, almost all nascent initiatives have experienced fraudsters, so the existence of bad actors should not be considered a cause for abandoning ESG, but rather a compelling case for deeper understanding and diligence.

What about, **no**? There is substantial evidence in the academic literature (reviewed in-depth below) that there are positive effects on operating efficiency for companies that adopt ESG and other sustainability frameworks. These findings are consistent with the win-win arguments made by ESG advocates that claim ESG provides a wider lens for how companies can create value.

But the best answer to date is, **maybe**. ESG is still a broad, ill-defined idea of how managers should run a business and investors should allocate capital. Absent a rigorous approach for how to make trade-offs, ESG

[2] For a review of greenwashing, see, Litigation Risks Posed by "Greenwashing" Claims for ESG Funds, Harvard Law School Forum on Corporate Governance.

can then be a justification for almost any corporate action. It is this ambiguity that we seek to clarify within a specific framework for how investors, and especially investors in alternative investments, can understand what might constitute good-ESG versus bad-ESG practices.

What's special about alternative assets?

Alternative investments are generally considered to include investments in private funds, such as venture capital and buyout funds, hedge funds, and real asset funds. However, large institutional investors are increasingly making direct investments in specific assets that are not publicly traded, such as operating companies, natural resources, and bespoke structured products. These investments tend to have several defining features that complicate their analysis inside of an ESG framework:

- **Smaller Size.** For example, private companies in the investment portfolio of a venture fund may be very small and have only limited resources to devote to ESG considerations, simply because they are preoccupied with survival. Adding additional costs to these companies could have a substantial impact on their ability to survive and provide innovative new products to the economy. Smaller private companies also have less impact on broader societal goals, so it may be less socially efficient for them to meet similar ESG expectations as large companies. Smaller size also pertains to many other types of alternative investments, including real estate, hedge funds, private credit investments, etc.
- **Greater Information Asymmetries.** Smaller companies typically have less information available for investors due to fixed costs of collection and dissemination. It follows then that small firms have less information with which their ESG performance can be evaluated. Additionally, many alternative investments rely on proprietary information or technologies that could be disrupted by substantial information flows related to ESG disclosures.
- **Greater Complexity.** Alternative assets include investments that can be extraordinarily complex and thus hard to fit into ESG evaluation frameworks. Many hedge funds invest in structured products with underlying assets in the equity, fixed income, commodity, currency, and related derivative markets. For example, how should a hedge fund (or fund investor) consider the ESG attributes of a credit default swap or a highly structured catastrophe bond?

While we cannot claim to provide answers to the many challenging questions around ESG in alternative investments, we do hope to provide a rigorous and rational framework that is useful for evaluating the trade-offs companies and investors must face. The remainder of this white paper is structured as follows:

I. An overview of ESG as we see it and a model for understanding returns and valuation effects when some investors have ESG-related preferences
II. Practical ESG investing and a summary of the extant academic literature
III. ESG in specific alternative investments and complex portfolios

We also note that the analysis provided in this white paper is a composite of the work of many authors, and the paper as a whole does not represent the full views of each individual contributor.

I. ESG: What It Is, What It Isn't, and a Model for Measuring Trade-offs

Before exploring a new model for ESG investing and stakeholder capitalism, it is important to discuss the traditional best-practice model: shareholder primacy. The beauty of shareholder capitalism is that, under the right set of conditions, it produces the optimal amount of goods and services at the lowest cost and with the

least waste. However, it is by no means a perfect model because it does not account for harm to common goods, such as pollution, or what economists call negative externalities. This has been known for centuries. However, in theory, all parties – workers, managers, shareholders, consumers and regulators – under shareholder maximization know what companies are up to: they are in the business of making money. As a result, policymakers, investors and consumers can create structures and incentives to shift toward outcomes that solve for negative externalities, such as minimizing pollution or misinformation.

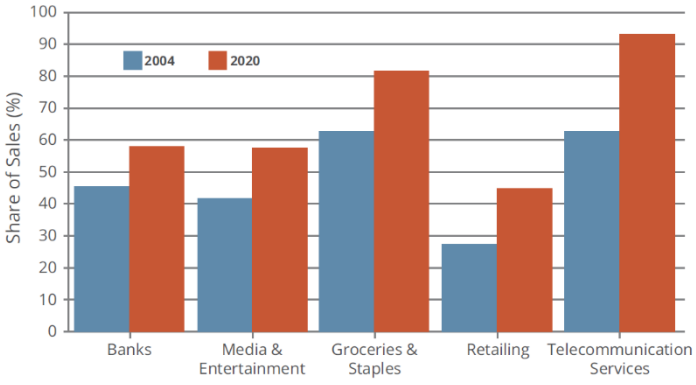
The Textbook Model of Shareholder Primacy

In the textbook model of shareholder capitalism, a firm tries to maximize profits by producing the highest output at the lowest cost. All of management's decisions are based on that principle: hire the workers with the right skills or train existing workers; invest in plant, equipment, software, and research and development; and produce a good or service (predominantly services these days) that customers want to buy. Demand and supply respond to changes in prices and tastes – such as customers wanting more organic food or electric cars – because firms are chasing those profits. Workers are incentivized through pay, bonuses and perhaps an ownership stake to produce the quality of products the firm chooses to sell – such as cheap, low-quality offerings like no-frills air travel or, at the other end of the spectrum, luxury resort accommodations. Firms choose the mix of inputs based on cost-benefit analyses, and make long-term investments in capital and labor so that they can keep generating profits. Nothing is wasted because waste eats into profits.

The Reality of Shareholder Capitalism

In the ideal setting noted above, shareholder capitalism produces an efficient allocation of resources. Competitive markets with widely available information mean that consumers know the quality of the good or service they are buying. Likewise, management is in sync with shareholders. Perhaps most important, governments adjust for externalities and create a regulatory environment that ensures competitive markets and the free flow of information. However, we know we do not live in the ideal, and market failures occur. In some ways, the U.S. of 1970 – when Milton Friedman wrote "A Friedman doctrine – The Social Responsibility of Business Is to Increase Its Profits," the op-ed that both proponents and opponents of the shareholder model lean on – may have been closer to this textbook model. For example, Figure 1 illustrates the meaningful decline in competition during the last 15 years, with research suggesting it goes back much further.[3] The increased firm concentration we see today means higher prices, lower output, less dynamism and fewer startups.[4]

Figure 1: Industry Share of Sales of Four Largest Firms



Source: MSCI, based on investable market

Moreover, regulators have been unable to keep up with the pace of change during the last 50 years, and in some cases have been "captured" through lobbying efforts by companies, industry trade groups and other special interests. This implies that the public sector may not be acting for the public benefit. Furthermore, the challenging politics around regulatory – and, in particular, environmental policies – as well as the global nature

[3] See Shapiro (2019)
[4] See Shambaugh, Nunn, Breitwieser & Liu (2018)

of the problem, mean that policymakers are failing to enact policies that deal with negative externalities. For example, the economic experts across the political spectrum have long held that carbon pricing can be a significant change agent by creating incentives for businesses and consumers to lower their carbon footprints. Yet after 27 rounds of U.N. climate talks, policymakers are unable to agree on a unified global response.

Operational Issues Within the Shareholder Primacy Model

In the textbook explanation of firms under the shareholder primacy model, firms take a long-term view and thus treat labor, communities, suppliers and customers as essential partners in the pursuit of profit. A number of issues can attenuate the focus: agency problems, which drive a wedge between management and shareholders; transient investors' pursuit of short-term profits; and operational challenges, which make it difficult for management to focus on the long-term pursuit of profit. Incorporating some ESG principles into the standard shareholder model can be part of the solution. For example, research has illustrated the beneficial effects of employee satisfaction on profitability.[5]

The primary operational challenge for shareholders and management – to define clear and measurable goals to foster pursuit of long-term profits – is often overlooked. Research suggests that it is difficult to incentivize managers and workers to multitask (i.e., maximize current profits while also investing for the future).[6] One way of getting there is to provide a clear scorecard and measurements for managers' and workers' objectives, which indicate how much their efforts should be focused on the different metrics. Research has found that many companies do not even attempt to specify weights on the various measures in their scorecards, and those that do often have shifting priorities over time.[7] Solving internal weights and measurement issues is a key component to standard profit maximization models, and becomes even more pressing when additional maximization goals are introduced (such as a stakeholder capitalism framework). Our work indicates that current ESG weighting schemes are neither developed nor standardized enough to meet the rapidly evolving needs of investors and managers.[8]

No Standard Stakeholder Model

"Unfortunately, there are nearly always trade-offs to consider."

With the understanding that shareholder primacy has its challenges, stakeholder capitalism has emerged as a model that could possibly better serve business and society. But, can the benchmark set by the ideal shareholder model – an efficient allocation of resources – be met by the stakeholder model? In fact, there is no widely accepted model of stakeholder capitalism that illustrates how to define and balance the needs of all stakeholders. Meanwhile, empirical evidence suggests mixed results for stakeholder-focused businesses. Incorporating stakeholder needs via the demands of various change agents – employees, consumers, investors and government – can create that value for firms and society. This inclusion may come at a cost, however, as self-interest and management challenges can mean that change agents may trade long-term benefits for short-term gains.

[5] See Edmans, Li & Zhang (2020)
[6] See Holmstrom & Milgrom (1991)
[7] See Hemmer & Labro (2017)
[8] For more, see our Kenan Insight "ESG Measurement: A Surprisingly Complex Issue" at https://kenaninstitute.unc.edu/kenan-insight/esg-measurement-a-surprisingly-complex-issue/

R. Edward Freeman, a leading developer of stakeholder theory, says, "The task of executives is to create as much value as possible for stakeholders without resorting to trade-offs."[9] Unfortunately, there are nearly always trade-offs to consider. Even when businesses are experiencing explosive growth and investing all their returns back into the business, executives have to consider in which set of people and priorities they should invest. Klaus Schwab, founder and executive chairman of the World Economic Forum, acknowledges that at least "in the short run… difficult choices [may] need to be made which benefit one stakeholder or its concerns more than another."[10]

Professor Sarah Kaplan of the University of Toronto's Rotman School of Management, an expert in stakeholder trade-offs, believes this can provide opportunities for companies to innovate. "Even when there aren't innovative solutions, companies can learn to thrive within the tensions created by intractable trade-offs. These tensions, rather than being confusing or problematic, can actually be a source of organizational adaptability and resilience."[11] Kaplan and Schwab use specific company cases – for example, how to balance consumerism and sustainability – to illustrate applications of their models.[12] Their models can be boiled down to the following: if businesses work hard enough, they can often create win-win solutions.

But, of course, this has its limits. We instead propose a model, described in detail below, that is a more realistic solution because management does not have to weigh potentially competing demands of different stakeholders. Instead, they continue to respond to the incentives provided by shareholders. And, as we know, shareholders are increasingly interested in incentivizing managers to care about ESG-related factors.

Consultants and Businesses Haven't Solved This Issue

Given the intense interest in the topic, it is not surprising that stakeholder implementation has become big business. In an article by Vivian Hunt, Robin Nuttall and Yuito Yamada from McKinsey & Co., "From principle to practice: Making stakeholder capitalism work," the authors lay out five execution steps: Understand who the stakeholders are; understand stakeholders' needs and build trust; define and measure ways to serve stakeholders; define and execute a stakeholder capitalism strategy; and build an operating model that can sustain long-term value creation for all stakeholders.[13]

The article cites a researcher who identified 435 distinct stakeholder groups, so the authors place the stakeholders into three categories: internal, external who interact directly with the company, and external who define their operating environment (thus putting a limit on how far stakeholders should extend). When thinking about trade-offs, the authors suggest using three attributes to rank the identified ideas, including the extent to which the idea matches the company's strengths, how well it addresses a specific stakeholder need and how it captures long-term shareholder value. Unfortunately, there are no well-defined metrics or weights to manage conflicting stakeholder needs.

[9] See Stakeholder Theory. (n.d.).
[10] See Schwab & Vanham (2021)
[11] See Kaplan (2019)
[12] For example, see Gerretsen & Kottasova (2020, May 6)
[13] See Hunt, Nuttall & Yamada (2021)

"If caring about the interests of other stakeholders is only about generating long-run value for investors, then this is no different than the traditional model of shareholder primacy."

Outside of the academic literature and reports from consulting firms, corporations themselves are weighing in on the topic of stakeholder capitalism. In particular, a milestone in the movement was the Business Roundtable's 2019 Statement on the Purpose of a Corporation, signed by 181 CEOs of U.S. firms, which states:

"Each of our stakeholders is essential. We commit to deliver value to all of them, for the future success of our companies, our communities and our country."

Yet the Business Roundtable statement also declares that the purpose of a company includes generating long-term value for shareholders, "who provide the capital that allows companies to invest, grow and innovate." Unfortunately, the statement provides no direction on whether the interests of other stakeholders may come at the expense of shareholders or how such trade-offs should be managed. If caring about the interests of other stakeholders is only about generating long-run value for investors, then this is no different than the traditional model of shareholder primacy championed by Milton Friedman (among others).

Consequently, the Business Roundtable statement is largely vacuous and could mean almost anything depending on how it is read – perhaps deliberately so. The Business Roundtable's vision is not unique in this way. To date, there are not any rigorous models of stakeholder capitalism that provide specific methods for how trade-offs between stakeholders should be evaluated. Furthermore, there appears to be little consideration in the discussion around stakeholder capitalism about the fiduciary responsibilities of management and the corporate board of directors. Unless we believe there will be significant modifications to the legal framework defining fiduciary responsibilities of for-profit companies, any viable model of stakeholder capitalism must be constrained by considering only actions that maximize shareholder wealth.

In sum, stylized models suggest stakeholder orientation can be accretive to firm value under certain conditions, as long as the stakeholder benefits are clearly delineated, measured and not overweighted. While theoretically straightforward, putting the theory into practice is much harder.

A New Model

Thus far, our analysis suggests no room for a stakeholder capitalism model that deviates from traditional shareholder supremacy. Thus, instead of trying to avoid this model, our model harnesses the power of shareholders and their nonpecuniary preferences. This is a new, rigorous and precise model of stakeholder capitalism that deviates from the traditional model of shareholder supremacy by demonstrating how certain corporate actions that benefit other stakeholders can decrease profitability and yet increase shareholder value.[14] While this may seem counterintuitive, this model is quite straightforward and rests only on an intuitive extension to the traditional model of profit maximization by allowing investors to value more than just financial profits.

In particular, if some investors care about a business's stakeholders, and these preferences are reflected in their valuations of corporate equity, then it is possible for a wedge to open up between corporate profits and shareholder wealth.

[14] This model is based on by Pastor, Stambaugh, & Taylor (2021), and developed by Greg Brown, Lubos Pastor, and Paul Yoo. To learn more, see https://kenaninstitute.unc.edu/kenan-insight/why-both-sides-of-the-esg-debate-have-it-wrongand-how-to-get-it-right/

The Model at Work

Before diving into a more rigorous analysis, we provide a simple, stylized example to illustrate this model at work. Consider a manufacturing company that needs to build a new production facility and has two options: it can build a traditional facility for $100 million, or a more environmentally friendly facility for $115 million. For simplicity, assume there is no difference in the other cash flows (e.g., efficiency) of the environmentally friendly facility – perhaps the only distinction is that it was constructed with more sustainable (and expensive) building materials that are otherwise identical in specifications. In the traditional model of shareholder supremacy, building the environmentally friendly building would cost the company another $15 million with no cash flow benefits and thus would decrease shareholder wealth by $15 million. Depending on one's interpretation of the law, this could even be considered a violation of fiduciary responsibility by the company's management and board.

A **greenium** is the premium that investors are willing to pay because of their preferences for nonpecuniary investment attributes.

But perhaps the issue is not so simple. What if some of the company's shareholders have a preference for the company building the environmentally friendly factory instead of the traditional factory? Suppose, on average, shareholders would be willing to pay 2% more for the stock of the company if it owns and operates the green factory. (This equity price premium is often referred to as a greenium.[15]) Now, let's assume that the market cap of the company is $1 billion. If the company builds the green factory, the market value of the company's equity will increase by $5 million (2% of $1 billion is $20 million minus the $15 million in higher construction costs). This happens even though the company's profits will decline by $15 million. If the company's management seeks to maximize shareholder value, clearly, they should build the green factory *despite the lower profits*.

Critically, our example demonstrates how a corporate action that lowers profits can still be consistent with fiduciary responsibility. That said, it also shows there is a limit to what the company can spend. This limit depends on the size of the greenium, which in turn depends on the preferences of shareholders for nonpecuniary corporate actions. What if the greenium for the green factory was just 1%? In this case, the market value of the company's equity will *decrease* by $5 million (1% of $1 billion is $10 million, minus the $15 million in higher construction costs). In sum, the key insight is that investor preferences for nonpecuniary actions that benefit different stakeholders will determine greeniums associated with those actions. The valuation premiums then tell managers the maximum amount they can spend on those actions. Of course, premiums can be zero for some (probably most) nonpecuniary actions – meaning managers should not consider investments associated with those projects or stakeholders. In this way, our model provides exact and prescriptive advice for how managers and boards should consider all corporate stakeholders.

A General Model of Stakeholder Capitalism

We now discuss how to formalize the intuition above by extending the findings of the model presented by Pastor, Stambaugh, and Taylor (2021, henceforth PST), which examines how valuations for "green" companies are determined in a competitive capital market.

We consider an economy in which investors care about the economic profits a company generates as well as the effects the company's operations have on society. In particular, some companies have what investors

[15] To learn more, see https://kenaninstitute.unc.edu/kenan-insight/does-esg-investing-generate-higher-returns/

consider to be negative impacts while other companies have positive impacts (i.e., positive and negative externalities). Investors may observe and measure these nonpecuniary impacts through tools like ESG factor ratings.

The PST model considers just one factor, but we extend this to an arbitrarily large number of possible factors that some investors value. As in the PST model, companies with characteristics that investors feel are beneficial to society will have higher valuations as compared to companies with characteristics that investors feel are harmful to society. The magnitude of the valuation premiums will depend on the strength of investors' preferences for each factor. The more investors care about a particular factor, the larger the valuation premium will be for that factor.

What are the attributes of a rigorous model?

- **Rational actors** who understand the decisions they are making and seek to optimize their behavior with respect to some objective. In fact, the key driver of our results rests on a very straightforward extension of the traditional model of shareholder primacy where we allow investors to care about ESG factors as well as profits.
- **A stable and robust equilibrium** where outcomes do not rely on managers acting on behalf of many other stakeholders (which could potentially create conditions in which benevolent companies are driven out of business).
- **Intuitive and practical** with easily understood forces at work so it can be used by real-world managers and boards to understand the trade-offs they face.
- **Consistent with fiduciary responsibility** so that management and board actions of for-profit corporations will not deviate from a mandate to maximize the financial wealth of shareholders.

This model holds implications not only for portfolio holdings of investors but also for corporate actions. Most importantly, corporations have an incentive to invest in some projects with positive social impacts because these will have a positive effect on their stock price. In fact, this is a self-reinforcing feature of the model – it generates a stable equilibrium because the higher stock price implies a lower cost of capital for the company. And in effect, that lower cost of capital makes some otherwise financially unviable projects viable, because investors have a preference for the social impact.

This model has several important implications:

1. If sufficiently precise estimates of social impact and corporate valuation effects can be obtained, managers will use these estimates to optimize decision-making. In particular, only projects where the positive valuation effects on stock prices exceed the costs of generating the social impact should be undertaken. This is the key result of the model. Investor preferences for socially beneficial corporate actions are reflected in a company's stock price, and tell managers exactly what they should focus on and how much they can spend. In short, the stock valuation premium for each stakeholder project implies an upper bound for the value of nonpecuniary ESG projects that investors are willing to bear.

2. Overall stock valuation effects will be the sum of individual effects. For example, companies will likely vary in how well they meet investors' assessments of different factors. Consider the scoring of different ESG factors: one company may do well on "E" and poorly on "G" (Tesla) whereas another may do well on "S" and poorly on "E" (Apple). There will still be financial incentives for both companies to

improve on individual factors regardless of their overall ESG score. The challenge is knowing how to disentangle those individual effects. For instance, is there a high greenium for Tesla because investors expect it to do more E, or improve G?

3. The company's size matters. Should every company pay attention to every ESG factor? Our model says no. Smaller companies with lower equity valuation will optimally spend less on stakeholders for a given percentage valuation premium. If there are fixed costs associated with stakeholder projects, some will be cost prohibitive for small and midsize companies. Likewise, if communication to shareholders about stakeholder actions is costly, companies may want to limit their stakeholder projects to a manageable number. This can explain why even large companies seem to concentrate on individual signature stakeholder projects such as U.S. Bank's Access Commitment to focus on closing the racial wealth gap.

4. A company's investor base matters. Because our model works by way of the preferences of shareholders, heterogeneity in the investor base implies that valuation premiums for specific stakeholder projects can vary by company. This could be especially important for companies in various geographies given the well-documented home bias of equity investors – a feature that can explain why similar companies in Europe, North America and Asia have very different stakeholder priorities.

5. Corporate capital structure can also be affected. While we do not explicitly consider corporate debt, it is now well documented that some green bonds also command a greenium.[16] To the extent that the pricing of corporate debt also depends on the nonpecuniary preferences of investors, this will generate additional (pecuniary) incentives for stakeholder projects favored by bond investors.

Finally, we note that this model of stakeholder capitalism should make investors of all types as happy as they can be in a world where some investors have nonpecuniary preferences. For example, the strongest advocates of ESG can buy the highest-rated companies for the factors they care most about – and feel good about their investments while providing a lower cost of capital for the projects that are most important to them. In contrast, investors who do not care about nonpecuniary corporate actions can invest in companies with low commitments to other stakeholders and, in turn, these investors will earn higher financial returns in equilibrium.

Is This Happening in the Real World?

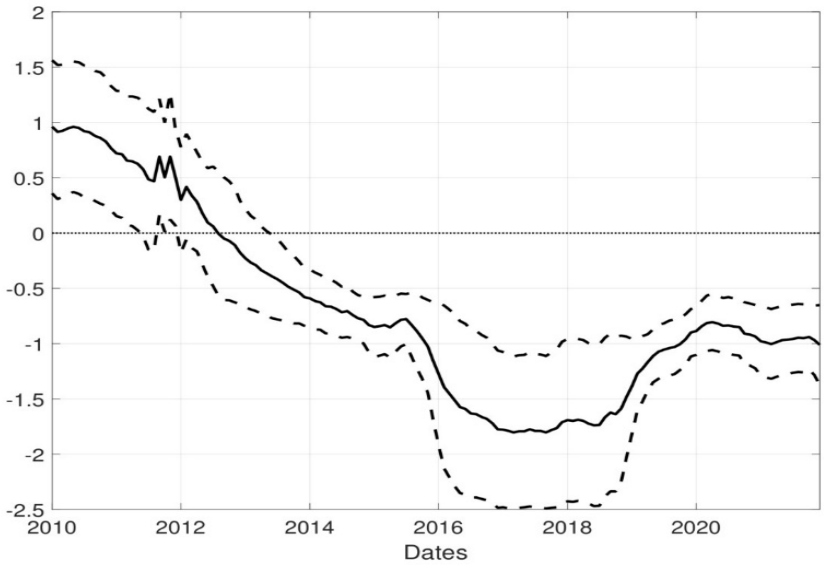
The discussion so far begs the question: is this really happening? Or, more precisely stated, can we actually observe the valuation premiums associated with nonpecuniary investor preferences that will serve as the inputs to corporate decisions? Research is digging into this exact question more deeply, but recent evidence summarized below suggests the answer is yes.

A second paper by Pastor, Stambaugh, and Taylor (2022) finds evidence of a growing and economically significant greenium associated with climate concerns. Likewise, Van Der Beck (2021) finds the recent outperformance of an aggregate ESG portfolio in the U.S. was driven primarily by investment flows, which suggests investors are paying an increasing premium for nonpecuniary factors. Results of new research by Yoo (2022) uses option-implied expected returns to uncover valuation effects. The findings suggest a nonpecuniary ESG greenium exists in the U.S. public equity market, on top of any other ESG-related premiums stemming from pecuniary concerns (e.g., regulatory ESG risks). This option-implied measure (plotted in Figure 2) has

[16] See Baker, Bergstresser, Serafeim, & Wurgler (2018) and Zerbib (2019)

been evolving over the last decade in a way that suggests a significant move from 2010 to 2015 toward a 1%-2% lower cost of capital for large U.S. companies that rate highly on MSCI's Intangible Value Assessment.

Figure 2: Effect of Nonpecuniary ESG Factors on Expected Returns



The ESG greenium (solid line) is based on MSCI's Intangible Value Assessment (IVA) data and is estimated over 36-month rolling windows. The vertical axis represents the change in one-month-ahead expected returns (in annual %) associated with three standard deviations increase in IVA ratings (i.e., bottom-to-top quartile IVA change). Dashed lines represent the 95% confidence interval. The sample focuses on S&P 500 stocks. Details are provided in Yoo (2022).

However, existing results do not provide the granular view of how investors value different stakeholder groups or specific projects that provide nonpecuniary benefits. The method for generating these measures is straightforward, though – at least in theory. Specifically, with data on corporate valuations and ESG ratings, one can estimate the coefficients of the following cross-sectional regression:

$$V_i = \alpha + \beta_1 \times ESG_i^1 + \beta_2 \times ESG_i^2 + \cdots + \beta_j \times ESG_i^j + controls + \varepsilon_i,$$

where V_i denotes an appropriate firm-level valuation measure (such as the market-to-book ratio) for company *i* and ESG_i^j are company-level ratings for *j* different ESG factors. The estimated β_js tell us whether a given ESG factor carries a significant greenium, and if so, how large it is. These estimates then serve as a guide to managers and boards about exactly which ESG factors to focus on.

In sum, this model for stakeholder capitalism generates a precise framework for corporate decision-makers to use in evaluating nonpecuniary projects. The model – which is consistent with widely accepted fiduciary standards for corporate managers and boards – derives from a simple and intuitive extension of the traditional model of shareholder supremacy. Simply put, we assume that some shareholders care about more than profits when making investments. This assumption is validated by observing the significant recent inflows to funds that have explicit ESG mandates. Yet that is the only nonstandard assumption needed to generate a model in which managers will undertake projects that benefit corporate stakeholders at the expense of lower profits, but *to the benefit* of shareholder value.

II. ESG Investing

Our model details a framework for how corporate managers can evaluate nonpecuniary projects that some investors may value as part of their personal preferences. But when we turn the lens toward the investor, what is happening in ESG investing?

As ESG investing has grown in popularity, it has also become the subject of increased scrutiny and debate. Proponents of ESG investing tout the potential benefits to the corporate bottom line that also align with their broader societal goals, concocting a "doing well by doing good" rhetoric. However, detractors worry that the benefits of ESG are overstated and that ESG can result in muddled outcomes and unwarranted economic dislocation in certain industries (e.g., oil and gas), including lower employment, competitiveness and perhaps investment in green technologies.[17]

What is ESG Investing, Really?

Before dissecting the controversy behind ESG, and what the evidence to date shows about its legitimacy, let's define and discuss the individual components as well as how these components are combined into one unified investing approach. The "E," "S" and "G" buckets are quite disparate and may themselves potentially engender challenging cross-bucket conflicts of interest, both for investors and (as discussed later) for management. To better understand this, it is important to separate these out.

The environmental criteria that ESG investors may perceive as relevant range from energy use to pollution to natural resource conservation and more. Furthermore, some investors may explicitly focus on downside environmental or climate risks, from the potential costs associated with negative climate shocks to perhaps more proximate adverse regulatory or policy changes. Social criteria can range from a company's working conditions and the safety of its employees to progress on workforce diversity to the engagement of the firm in the challenges of the community within which it operates. Finally, governance criteria focus on the degree to which companies engage in transparent accounting, facilitate board representation and ensure minority shareholders are well represented in important business decisions.

With the wide scope of the individual elements of "E," "S" and "G," it is not surprising to find that ESG investing still means wildly different things to different people, and different strategies are employed. To some, ESG investing may simply resemble an earlier iteration called "socially responsible investment" – which largely focuses on the avoidance of undesirable industries (e.g., coal and fossil fuels, tobacco products, or weapons manufacturers) through divestment. Taken together, this wide variation in intention and application, coupled with an imprecision with which ESG is defined in practice, begs the question – what really are the objectives of ESG integration? We provide a couple specific thoughts:

> (1) Some investors focus heavily on the potential for **material risk mitigation**. Specifically, they contend there are downside environmental, labor or customer risks that ESG considerations help to alleviate. This is certainly possible, but if there are material investment risks related to these issues, shouldn't a thorough traditional process already internalize them? Or, is it instead the case that recent years have unearthed important risks (or forced a better appreciation of those risks)? While certainly plausible, it is not all that novel an idea that unexpected but consequential risk realizations require more careful thought about risk

[17] See for example Cohen, Gurun & Nguyen (2021)

management going forward. If this is the case, then standard shareholder value maximization retains its primacy.

(2) Beyond risk, could **elevated value creation** associated with sustainable investments be achieved in a corporate setting? (Think capital expenditure, supply chain management, workforce diversity, etc.) Or, could asset managers who integrate ESG into their investment processes deliver superior risk-adjusted returns (what investors call alpha)? Of course, investments that generate (nonpecuniary) impact can create significant value for investors in a more holistic sense, but that impact is generally associated with financial tradeoffs through elevated costs elsewhere. Some have argued, however, that ESG integration represents an opportunity for *financial* value creation and elevated investment returns through, for example, customer acquisition (e.g., those who value sustainable products) or increased employee retention and productivity.[18]

Evidence: What Does the Literature Say About ESG Investing Outcomes?

At a fundamental level, evaluating the effects of ESG efforts is complex because it depends on how ESG is being used and measured. Throughout the report we provide insights into these questions by investigating the empirical evidence. Here we provide a summary of some of the most important research to date.

Two large meta-analyses of ESG impacts examine the relationships between ESG factors and both operating and investment performance. The first, by Friede, Busch and Bassen (2015), is an analysis of over 2,200 studies between 1970 and 2014. The meta-analysis finds that 57% of studies document a significant positive relationship between ESG and firm-level operating performance while most of the rest were neutral or mixed. A more recent analysis by Whelan, Atz, Van Holt and Clark (2021) of over 1,000 studies between 2015 and 2020 finds that 58% of these studies showed a significant positive relationship for operating performance.

In contrast, the relationships between ESG factors and investment returns are more mixed, with roughly an equal number of studies documenting significant positive and significant negative relations. A caveat to the findings in the empirical literature is that individual studies in this space can be hard to interpret because ESG criteria are not understood and measured in the same way across studies. Consequently, it is unclear whether good ESG behavior leads to good performance or whether better-performing firms simply have more resources to conduct ESG activities. But overall, the research suggests that ESG investing is unlikely to bring substantial negative operating or financial effects.

Can ESG Live Up to the Hype?

Despite ESG's potential for the creation of financial value, we caution that there is an important distinction between recent realized investment returns and prospective, forward-looking expected returns.[19] If there is a rapidly growing demand for ESG or socially responsible investments (as we have witnessed during the last decade), then the prices of those assets will increase, generating outsized – albeit temporary – returns. In the long run, assets that are demanded for their high ESG ratings will instead carry lower expected returns going forward, perhaps because investors enjoy holding them for their nonpecuniary impact or else because these assets may help to hedge important downside risks. For example, under this argument, the purported

[18] See Edmans (2011) and Boustanifar & Kang (2021)
[19] See Pástor, Stambaugh & Taylor (2021)

outperformance of ESG funds during the COVID-19 pandemic is instead a manifestation of a sizable, demand-driven repricing that will eventually yield lower returns in equilibrium.

Even the most optimistic view of ESG must acknowledge several challenges in implementation. First, we remain far from consensus on sustainability accounting. Specifically, there remains a tremendous degree of disagreement among ESG data providers. How can we credibly manage outcomes if we cannot agree upon what to measure? A critical next step for the evolution of ESG investing will be an evolving consensus on sustainability accounting.[20] We delve deeper into the challenges of ESG measure measurement below.

Second, there is also deep skepticism among some that ESG integration is nothing but window dressing. For instance, Bebchuk and Tallarita (2021) show that the Business Roundtable firms have done little to nothing in terms of fundamentally transforming their operations in any meaningful way as promised in their 2019 proclamation. Further, Tariq Fancy, former Blackrock global chief investment officer for sustainable investing, went so far as to call ESG a "dangerous placebo" through which we think we are making progress even though we are not.[21] This illusion permits a kind of complacency, allowing us to avoid more consequential (but costlier) reforms. In addition, there are many high-cost investment products that look like little more than a repackaging of poor-performing funds under different names. This sort of greenwashing is an unfortunate and potentially costly distraction for both investors and policymakers as it may hinder an appropriate policy response.

Finally, as we noted in the Trade-offs section earlier, there are some real economic trade-offs that that will be debated. Consensus on how to weigh and address these trade-offs may be hard to find, especially in our increasingly polarized political environment. For example, when addressing climate risk, there are clearly growth opportunities in technological solutions that will help to address global warming, but we still need to internalize collective costs. Forcing those who are imposing an externality (like carbon emissions) on others to face the costs of their actions is the only viable mechanism to solve such a problem; doing so would not only offer a solution but can also support related technological growth opportunities. Accordingly, then, where are the policymakers? While ESG integration may help on the margin, the consensus view among economists is that nothing can replace a carbon tax as a vehicle for change. And, in fact, recent research suggests that the majority of carbon emissions are not generated by public firms, so a **global** solution must include a policy initiative broader than corporate ESG alone.[22] Research has illustrated, however, that carbon taxes must be well designed and deployed in proper contexts, as some of the carbon reduction benefits can be offset by other policies such as R&D tax credits.[23]

A Deeper Dive into the Complexities of ESG Measurement

Of the three challenges noted above, ESG measurement is the most tangible – and creating clearer standards could positively impact the latter two challenges through better, uniform information gathering and sharing practices. Below, we propose ways of refining ESG measures to produce structures that could potentially meet the needs of multiple stakeholders; designing reporting that is free from political influence and agendas; and illustrating the promise and risks of impact accounting.

Long-running literatures in accounting, economics, finance and business practice examine the powerful role that performance measurement plays in shaping behavior – as well as the potentially deleterious effects caused

[20] For a recent illustration of the accounting challenges see https://www.wsj.com/articles/banks-promised-to-cut-funding-for-arctic-oil-drilling-money-flowed-anyway-11634468580
[21] See McCord (2021, August 24)
[22] See Atta-Darkua, Glossner, Krueger & Matos (2022)
[23] See Pless (2022)

by measurement schemes that are poorly mapped to the underlying factors of interest.[24] It is therefore useful to consider ESG measurement in the context of performance measurement systems more generally. Such systems include accounting standards developed by the Financial Accounting Standards Board and International Financial Reporting Standards, innovative costing methodologies such as activity-based costing, and a wide range of nonfinancial performance measures directly used in compensation contracts as well as strategic tools such as balanced scorecards.

The corporate organizational form has benefited from these standards and proved to be a powerful and dynamic mechanism for driving economic growth and prosperity. Well-designed performance measurement and disclosure systems play a central role in this success. Characterized by a separation of decision-makers from suppliers of finance, the success of the corporate form relies on the presence of effective incentives that deter managers from cheating investors out of the value of their investments, and that motivate managers to maximize firm value instead of pursuing personal objectives. Audited financial statements and related disclosures support the existence of vibrant capital markets and form the foundation of the firm-specific information set available to investors, boards, internal corporate managers and other stakeholders to monitor and discipline the actions and statements of insiders.

As we move forward to create standardized measures, it is paramount to consider the ultimate objectives of ESG measurement and how such measurement could optimally fit into the existing corporate order and information regime. The challenge is that ESG measurement is inextricably tied to opposing views on the purpose of the corporation, and directly related to debates about whether shareholder primacy or stakeholder governance should prevail.[25] This debate is reflected in the evolving demand for ESG information from clienteles with diverse objectives and incentives, including:

- Corporate executives managing internal capital allocation decisions and dealing with pressure from investors and myriad stakeholder groups.
- Investors seeking ESG information to enhance the risk-adjusted returns of their investments, or to incorporate their social and environmental preferences into their investment portfolios, even if it lowers return performance.
- Billionaires, regulators, activists, nongovernmental organizations and others seeking to transform existing economic and political institutions and/or implement political objectives outside of normal political channels.[26]
- Financial service firms, rating agencies, proxy advisors, accounting and consulting firms, and academics seeking to benefit from providing ratings and investment products, consulting on ESG issues and attesting to ESG disclosures.[27]

Clearly, a single ESG measurement structure cannot satisfy such diverse objectives. Moreover, it is not clear that all these objectives are desirable. Because of this, developing a neutral set of standards is critical for creating

[24] See for example Bushman (2021), Kerr (1995), Baker (2000), and Ariely (2010).
[25] For further discussion, see https://kenaninstitute.unc.edu/kenan-insight/is-money-left-on-the-table-when-we-dont-listen-to-stakeholders/.
[26] Some argue that the ESG movement represents a libertarian response based on the view that government lacks credibility and is not a likely source of solutions to broad societal problems like social injustice and protecting the environment (e.g., Macey, 2021).
[27] The potential for conflicts of interest when a firm both provides ESG ratings and consults on how to raise ESG ratings was highlighted in a recent Wall Street Journal article. (https://www.wsj.com/articles/wall-streets-green-push-exposes-new-conflicts-of-interest-11643452202)

a basis for understanding the value created by different stakeholders and subsequently allowing for an unbiased perspective to help managers make difficult trade-offs across the interests of various stakeholder groups.

Much of the discussion surrounding ESG is couched in terms of differentiating between "good" and "bad" companies, but there is unlikely to be agreement on which companies fall into which category. Further, such a stark good-versus-evil view of the world can have unintended consequences.[28] Our perspective on corporations is exacerbated by the current state of the ESG reporting landscape, which is characterized by many ESG ratings firms, idiosyncratic voluntary disclosures by corporations and mandatory reporting requirements that vary by jurisdiction. A recent study reveals this complexity by analyzing ESG rating data from six prominent ESG ratings agencies.[29] The study finds that such ratings from different providers disagree substantially, with correlations between the ratings ranging from 0.38 to 0.71 (see table below). Digging deeper, it finds that altogether the six agencies report **709** different ESG indicators and that these vary substantially across providers. Such divergence makes it difficult for investors and other stakeholders to evaluate the ESG performance of companies. This also imposes significant challenges for companies managing competing pressures from various stakeholder groups. How does a firm make inevitable trade-offs across categories that are valued differently by different clienteles? Do managers view ESG scores as a problem to be managed rather than as tool to solve social issues and mitigate climate change?

Correlations between ESG Ratings

Correlations between ESG ratings at the aggregate rating level (ESG) and at the level of the environmental dimension (E), the social dimension (S), and the governance dimension (G) using the common sample. The results are similar using pairwise common samples based on the full sample. SA, SP, MO, RE, KL, and MS are short for Sustainalytics, S&P Global, Moody's ESG, Refinitiv, KLD, and MSCI, respectively.

	KL SA	KL MO	KL SP	KL RE	KL MS	SA MO	SA SP	SA RE	SA MS	MO SP	MO RE	MO MS	SP RE	SP MS	RE MS	Average
ESG	0.53	0.49	0.44	0.42	0.53	0.71	0.67	0.67	0.46	0.7	0.69	0.42	0.62	0.38	0.38	0.54
E	0.59	0.55	0.54	0.54	0.37	0.68	0.66	0.64	0.37	0.73	0.66	0.35	0.7	0.29	0.23	0.53
S	0.31	0.33	0.21	0.22	0.41	0.58	0.55	0.55	0.27	0.68	0.66	0.28	0.65	0.26	0.27	0.42
G	0.02	0.01	-0.01	-0.05	0.16	0.54	0.51	0.49	0.16	0.76	0.76	0.14	0.79	0.11	0.07	0.30

In addition to the wide range of ratings available, an alphabet soup of organizations and initiatives have been formed to advocate for specific evaluation frameworks, industry guidelines, regulatory policies, etc. These include organization like the United Nations Principles on Responsible Investing (UN-PRI), the Values Reporting Foundation (formed by a merger of the Sustainable Accounting Standards Board, or SASB, and the International Integrated Reporting Council, or IRRC), Sustainable Finance Disclosure Regulation (SFDR), the Global Reporting Initiative (GRI), to name just a few. Rather than review these organizations here we refer readers to existing summaries provided by the OECD (https://www.oecd.org/finance/ESG-Investing-Practices-Progress-Challenges.pdf) and Novisto (https://novisto.com/list-esg-reporting-framework-standard).

[28] For example, Cohen, Gurun, & Nguyen (2021) find through the examination of green patents that oil, gas and energy-producing firms are key innovators in the green patent landscape. However, these firms are explicitly excluded from many ESG funds and are often the targets of divestiture campaigns focused on stimulating green energy innovation – campaigns that may actually discourage green innovation.

[29] See Berg, Kölbel, & Rigobon (2019)

ESG Risks and Opportunities

As we previously noted, the "E," "S" and "G" buckets are quite disparate – and each can encompass a wide range of topics and issues important to different stakeholder groups. These buckets also each hold their own risks and opportunities. The challenges companies and investors face are how to prioritize the different needs of these stakeholder groups while mitigating their risks, and accounting for trade-offs. But done properly and with the right measurements in place, could an ESG framework incorporate many of the principles of stakeholder capitalism while still maximizing value for shareholders? As other sections of the report note, a key component is the premium that investors are willing to pay for positive ESG outcomes. But in other cases, stakeholders can drive companies' ESG practices through positive means such as fostering better governance and innovation, or by creating a potential risk to a company's growth opportunities such as customer boycotts or stricter regulation.

Here we document how some key stakeholders affect environmental, social and governance issues, and, in particular, how employees, managers, board directors, consumers, investors and government (among other stakeholders) can serve as change agents, to encourage companies to be better stewards of broader societal aims. We also acknowledge and address the many trade-offs companies and investors make when evaluating stakeholder wants and needs.

E - Environmental

The "E" often gets an outsized focus in the discussion of ESG – and it also leads to some of the greatest controversy. A primary emphasis of the environmental goals of ESG is to address the private sector's role in combating climate change (although this is not the only goal). The gravity and scale needed to address climate change requires sweeping societal solutions – and both the public and private sectors play a part, often in collaboration with each other.

It is clear that the private sector alone will not be able to adequately address climate change. Rather, government intervention will be key to ensure that companies meet ambitious climate goals set by international bodies, such as the Paris Agreement, an international treaty on climate change signed by 196 parties. Additionally, governments have multiple tools in their toolbox to encourage (or force) the private sector to support these shared climate goals, including tightening regulatory oversight of climate-related risk, setting new regulations and funding innovation.

Economists have favored a carbon tax as the best solution to address climate change by harnessing market forces to reduce carbon emissions and shift away from carbon-producing inputs into the energy, manufacturing and even food industries. The current timing may be ripe for that change, especially if a policy is introduced that encourages needed investments in traditional energy production while greener alternatives are not yet ready to replace them. We believe that the optimal policy regime is a combination of near-term regulatory relief for traditional energy assets combined with a back-loaded carbon tax.

S - Social

Less attention to date has been focused on the "social" objectives in stakeholder capitalism and ESG investing. This gap in attention can, at least in part, be attributed to the fact that there is less broad agreement on social objectives. One challenge is that prioritizing one group can sometimes come to the detriment of other groups, in perception or actuality. For example, should firms offer more generous benefits if in doing so they must then employ fewer workers? Moreover, there is significant disagreement across society about many social issues and

the most desirable outcomes on these topics. Taking sides of some of these contentious issues can bring praise from one group of employees, customers and regulators, but disdain from others.

Setting aside the disagreement and contention on many of these issues, social objectives face an added hurdle in the stakeholder capitalism or ESG investing framework because of difficulty surrounding measurement. While there are many issues yet to be solved in terms of measuring environmental impact, it is, in the end, a scientific problem. It is hard to measure the full carbon footprint of a given firm, but we all agree on the definition of carbon dioxide. In the social setting, things are not so simple. What represents diversity for one firm (e.g., in the U.S.) may not be diversity to another (e.g., in Europe).

While this clearly leads to challenges in this setting, it is also an opportunity. The fact that humans do not fit into boxes as neatly as chemical compounds means that it is also harder for government to resolve some of these issues. Policy solutions require standardization. Until we agree on rigid definitions of social objectives, we will need other entities to deliver. And this is one of the great promises of stakeholder capitalism: the potential to create incentives for firms to act to address important social problems in creative and less structured ways.

How best should a firm develop its policies in regard to social stakeholders? One critical step is to first define the stakeholders that are most relevant for a given firm. The list of possible social stakeholders is endless, and firms will have to select a subset of stakeholders to prioritize. For most firms, however, the key "social" stakeholder group that they will be measuring will be employees. Employees, as a stakeholder group, have received the most attention to date because of the critical nature of this group to firms' operations and the ability of employers to affect their employees.

G - Governance

Perhaps the least controversial part of ESG investing is the emphasis it places on good governance. Investors have considered firms' governance values for quite some time now, and for good reason: A large amount of academic research provides strong evidence that "good governance" leads to value creation. Firms with strong shareholder rights are valued higher and have higher stock returns than those with weak shareholder rights.[30] When firms are targeted by activist hedge funds and are forced to take steps to strengthen governance, firm performance improves. Even the possibility of future potential intervention by activist investors appears to scare targets' peers into action to make improvements that increase valuations.[31] The research thus provides clear evidence: Good governance is strongly associated with value creation; investing in firms with good governance, therefore, makes sense. Advocating for "G" under the umbrella of ESG then should not be controversial at all. However, the question of what fully represents good governance is still under debate.

At a basic level, good governance is aligning interests between the owners (shareholders) and the management. The governance structure of a firm is what determines the balance of power between managers and shareholders. In the case of a public company, this involves issues around how to structure an effective board that can do its monitoring job and how to incentivize the management properly to ensure that the company acts in the interest of shareholders. The ultimate authority rests, however, with the shareholders, who elect directors and delegate most decisions to managers. It is for this reason academic research on good governance has largely focused on shareholder rights and shareholder value; for public companies, these are easy to observe and measure, and thus helped improve our understanding. Yet, in the context of ESG investing, good

[30] See Gompers, Ishii, and Metrick (2003), Bebchuk, Cohen, and Farrell (2009). Also, Edmans (2020) provides a review of activist investors effects on firm value.
[31] See Gantchev, Gredil, & Jotikasthira (2019)

governance has at times taken different meanings that fall outside this scope defined by the relationship between shareholder rights and shareholder value. The debate around what "G" in ESG is and how it connects to value, therefore, is left somewhat muddled.

Where does the evidence leave us in terms of understanding the role of governance in ESG? We believe that the fundamental role of governance is to ensure that the company acts in the interest of shareholders. This reflects the heart of the principal-agent problem – that managers may not act in shareholders' interest. The key distinction as ESG becomes more embedded in decision making is that acting in the best interest of shareholders is likely more complex than maximizing profits. It instead involves maximizing shareholder *welfare*, which can include nonpecuniary factors for many investors – a fact acknowledged even by the father of shareholder primacy, Milton Friedman. But shareholder value is likely the biggest element, and this involves tying CEO pay to long-term shareholder value, ensuring (in most cases) independent, small and focused boards, ensuring (in most cases) shareholder rights, shareholders being able to engage (although more engagement is not necessarily better). To the extent that shareholders have goals other than long-term shareholder value, companies should make sure that they discover these goals. But it is essential that CEOs do not start pursuing whatever ESG goals they personally desire, since they are using shareholder money to do this. And, this represents a serious potential agency problem for ESG, as it is well documented that CEOs can pursue their pet projects or whatever cause happens to be in the news so they can be viewed favourably by the public.

III. ESG in Specific Alternative Assets

Translating ESG principles to alternative investments of various types is not always straightforward. This section discusses ESG issues for three important classes of alternative investments (private equity, hedge funds, and real assets) and diversified portfolios investing in these assets. We highlight challenges and limitations to ESG in alternative investments and make some recommendations for implementation.[32]

Private Equity

Increasingly, the private equity industry (PE) must factor ESG issues into the way it operates. This has important implications for both fund managers and their portfolio companies. Yet, anecdotal evidence suggests that the wide range of competing standards and investor objectives has generated an untenable situation for private equity general partners (GPs). For example, recent research suggests that ESG regulations aimed at publicly-listed firms are being crammed-down to private companies which may be sub-optimal because of differences between typically larger public firms and smaller private firms.[33] As ESG frameworks have rapidly gained ground in private equity, there have been various attempts to define what is appropriate for private equity and standardize reporting.

One prominent example of these efforts is the ESG Data Convergence Initiative (ESG-DCI) spearheaded by CalPERS and Carlyle.[34] This initiative seeks to define a reporting standard that would be relevant for private equity on a global basis (i.e., to be relevant to global investors) but also practical in its scope of reporting. Instead of expecting PE-backed companies to report on dozens of items, the initiative focused on just six factors: greenhouse-gas emissions, renewable energy usage, gender diversity, workplace safety, net new hires,

[32] For an overview of how LPs and GPs utilize ESG factors see McCahery, Pudschedl, and Steindl (2022). See also PRI resources and guides for private equity and other alternative asset classes: https://www.unpri.org/investor-tools/private-equity.
[33] See Abraham, Olbert, and Vasvari (2022).
[34] See https://www.esgdc.org/ for more detailed information.

and employee engagement. While it is too soon to determine if ESG-DCI (or other initiatives) will become a PE industry standard, there is a general understanding among market participants that private companies should be evaluated differently than public companies.

Acknowledging firm-level differences is important when examining the variety of activity in the space thus far. Larger public companies have been considering issues of corporate responsibility and sustainability for some time. Big firms have built dedicated teams to incorporate ESG-related issues into their operations and investment approaches, and most even issue annual sustainability reports. In 2020, 92% of companies in the S&P 500 index published a sustainability report, according to the Governance and Accountability (G&A) Institute.

However, most small and mid-size businesses are still developing their ESG strategies. The same G&A Institute report showed that less than half of public companies outside the S&P 500 issued a sustainability report in 2020. Likewise, recent research by the Institute for Private Capital indicates that smaller PE-owned companies are rushing to catch-up to public companies given increasing demands of investors and other stakeholders. For example, a recent survey conducted by IPC of 81 lower-middle-market PE firms (that typically manage funds with less than $1 billion in assets) revealed that only 11% had signed on to the United Nation's Principles of Responsible Investing and fewer than half have adopted formal ESG policies.

Our survey, which was conducted in the summer of 2022 in partnership with the Small Business Investor Alliance, revealed a young, but rapidly evolving, ESG landscape in the lower-middle market. While these funds are generally smaller in size than those operated by the large global private equity firms, they represent the bulk of PE deals. Overall, these firms report facing significant challenges in a variety of areas, including sourcing deals with non-traditional owners and managers, ESG policy implementation, as well as their own DEI initiatives.

We see two main factors driving increased attention to ESG in private equity. First, ESG issues have implications for general partners' operational strategies. Second, providers of capital to private equity funds, such as pensions and endowments, are increasing pressure on all companies to report ESG-related information.

With respect to operational strategy, ESG factors can point to potential improvements in a variety of ways, including growing sales, improving production efficiency, and lowering risks. Consultants and other ESG-advocates have long lists of possible ways companies can realize "win-win" opportunities that addresses ESG topics while increasing cash flows or mitigating business risks to directly improve a company's value. However, as discussed above, not all ESG-related issues will generate such win-win opportunities. In many cases, the costs of achieving ESG-related goals outweigh potential benefits, especially for the types of smaller companies often owned by PE funds.

Investors' ESG expectations are also complicated. ESG expectations are increasing among investors who will acquire PE portfolio companies. Research discussed in the previous sections suggests this has resulted in a growing valuation premium, (i.e., "greenium") for companies that score highly on various ESG metrics. However, companies must bear substantial reporting and compliance costs, costs that are likely to increase as expectations (and regulation) continue to expand. As a result, a company that understands the most-valued ESG factors, and builds efficient processes around them, can likely limit costs *and* benefit from a higher exit valuation.

A major challenge to efficient ESG implementation for many PE-backed companies is the wide range of stakeholders who potentially care about ESG factors. In addition to investors, customers care about ESG issues

because of their own individual preferences. For example, Gen-Z consumers increasingly select retailers based on ESG-related business practices and commercial customers must often factor ESG metrics, such as carbon emissions, into their own supply chain reporting requirements. Moreover, ESG-related issues are frequently different for private equity portfolio companies. Consider governance: With a PE-backed buyout there is little room for an agency conflict between shareholders and managers given that the PE firm owns a controlling stake. Yet, private equity firms themselves may face conflicts with their own fund investors that don't exist for public companies, including over issues such as appropriate levels of fees or disagreements on the appropriate level of transparency to the underlying investments.

These challenges suggest that private equity portfolio companies, and really any smaller company, should consider ESG differently from a large public company. Specifically, the trade-offs between benefits and costs of implementation are more likely to limit the scope of ESG-related policies for smaller companies. Private equity portfolio companies must carefully consider where their more limited resources will have the greatest advantages. With this in mind, we propose a simple model for prioritizing ESG issues. Specifically, companies should evaluate issues based on a combination of implementation cost and impact. The 2-by-2 matrix below provides a simplified way to view the implementation decision.

Impact: / Cost:	**Low**	**High**
Low	PE firm should have a strategy, but only larger companies implement	Likely to be "win-win" and should be primary focus of PE-backed companies
High	Only large companies should do these	As PE-backed companies grow, these are next priority

PE-backed companies starting to consider ESG implementation should focus primarily on low-cost, high-impact issues. These are initiatives with the potential to improve both the bottom line for equity-holders and that most-likely would be viewed positively by other stakeholders. Our survey of lower middle-market PE firms suggests focus on projects such as improved waste stream management, equitable compensation practices, employee inclusion and retention initiatives, worker safety programs, and cybersecurity investments.

As resources grow at PE-backed companies, ESG priorities can expand to include higher-cost, but still high-impact, initiatives, such as targeting new investments in low-to-moderate income areas, expanded employee benefits, and energy or water sourcing policies. Only after these opportunities have been developed should small and mid-sized companies consider initiatives where their efforts have more modest impact. Of course, the specific trade-offs will depend crucially on the industry, location, and size of operations. For example, a larger PE-backed mining deal will require substantial analysis of environmental issues related to their operations in ways that a small manufacturing or service deal would not. So, this is still not a one-size fits all approach.

To make these ideas more concrete, consider a few specific examples.

- **Environmental:** One of the most common environmental metrics is carbon footprint. However, the carbon footprint of most smaller companies, especially in the technology or healthcare industries, is minimal. Fully eliminating the carbon emissions of all PE-backed mid-market companies would have

a very modest impact on global carbon emissions, yet it would come at a high near-term cost for many companies. Instead, it would likely be more cost-efficient and impactful for smaller companies to better manage their hazardous and non-hazardous waste streams. Better waste management has been shown to increase the bottom line, reduce legal risks, and help the environment all at the same time.

- **Social:** Supply chains are a major "social" issue in most ESG metrics. However, fully evaluating, assessing, and verifying sustainability and potential risks for supply chains can be a very difficult and expensive job for a smaller company. In many cases it would be more socially beneficial for companies to only vet major suppliers and instead focus on other social issues more under their direct control such as workplace safety.
- **Governance:** As previously noted, governance issues are often quite different for private versus public companies. Private companies are likely to gain little by fine-tuning board structures that might be functionally equivalent in the presence of a controlling shareholder (e.g., PE-backed firm). Instead, a small firm may focus more on business ethics and culture that reduces reputational risks and generates positive views of the organization among employees, customers, and other external stakeholders.

While it is often difficult to argue against undertaking actions intended to make the world a better place, the reality is that resources are always finite. The constraints faced by smaller PE-backed companies will tend to be more binding, increasing the need for these firms to carefully consider the trade-offs of competing ESG priorities.

ESG in Real Assets

Over the last 20 years asset managers have substantially broadened the scope of "real asset" investment strategies. More traditional investments such as commercial real estate have grown, but increasingly dedicated funds are raised to invest in infrastructure, land and timber, residential real estate, renewable energy, and even water rights.

Given the diversity of underlying assets, the ESG characteristics of real asset portfolios are highly dependent on the specific investment strategy. As an obvious example, consider the differences between a typical oil exploration and production (E&P) fund and a renewable energy fund focusing on developing large-scale solar farms. Clearly, the E&P fund will score very poorly on environmental characteristics, such as carbon footprint, and the solar fund will score very well. Yet, there could be important differences in how the assets rate in terms of social impact depending on where and how the investments are made. In terms of governance, the funds are likely to face similar issues related to ownership agency in private equity, but may face separate and more complicated governance issues related to permitting and potential public-private partnerships (which are also likely to be highly dependent on the location of investments).

The real asset investment industry has made a serious attempt to evaluate ESG factors through the creation of the Global Real Estate Sustainability Benchmark (GRESB). For example, the GRESB organization sets standards for reporting factors related energy consumption, water usage, and waste management. GRESB then aggregates and disseminates self-reported data from its large membership base. GRESB data have expanded to include reporting on strategy and governance issues in real estate and now also covers infrastructure investments, as well as assets in both listed and private investment funds. In our view, the process the real asset industry is following constitutes a best-practices approach by taking a leadership stance through GRESB on how to measure and report material ESG factors. The industry approach lowers the risk of unnecessary or irrelevant reporting based on inappropriate factors spilling over from more general ESG evaluation

frameworks. While reporting costs will still be extensive for smaller funds, the information collected by fund managers can serve a dual purpose by being relevant to operational decisions as well as investors.

As is the case with private equity funds, very little research has examined the relation between ESG characteristics and real estate fund performance. One exception is a study by Devine, Sanderford, and Wang (2022) which examines voluntary ESG disclosures by private equity real estate funds. Their results document a rapid adoption of GRESB reporting by funds over the last five years and that reporting is related to fund performance. In particular, they find that funds with better GRESB performance also have better returns, but that these are due only to capital appreciation and not higher income. The findings of Devine et al. are consistent with the model described above where investors pay a "greenium" for the nonpecuniary benefits of green buildings.

ESG in Hedge Funds

While the growth of hedge fund assets has slowed in recent years, it is estimated that about $4 trillion USD are invested globally in various hedge fund strategies. In many institutional portfolios, hedge funds make up more than 10% of assets.[35] However, a variety of common hedge fund strategies are difficult to evaluate in the common ESG framework. Consider the following example of an activist equity fund investing in public companies: A simple evaluation of the activist portfolio would suggest that common ESG metrics could be applied to the hedge fund portfolio companies and these would be comparable to an ESG evaluation of a typical equity portfolio. But on closer inspection, this analysis could provide exactly the wrong conclusion regarding the ESG stance of the hedge fund. For example, a very common practice among activist funds is to target companies with poor governance in an attempt to influence a value-creating shift toward good governance practices. Consequently, a hedge fund portfolio may score very poorly on governance metrics when in fact it is in the very business of promoting good governance. A naïve investor with preferences related to ESG factors may then work counter to their own objectives (e.g., advocating for good governance) by not understanding the details of how ESG metrics are being utilized in the investment process.

This case of the activist hedge fund makes the point that evaluating ESG factors can be misleading, but most institutional investors are sophisticated enough to already understand this specific issue. More challenging is attempting to evaluate ESG characteristics for trading strategies and financial instruments that do not fit well into the traditional buy-and-hold investment paradigm. Consider a fund that follows a market-neutral high-frequency trading strategy. The fund may have millions of positions over the course of a quarter that all effectively net to zero. Yet, there is capital allocated to the strategy and so investors may want to understand the ESG characteristics of the fund. Does it make sense to calculate an exposure based on the underlying trades? Probably not since the net exposure is close to zero. Should the hedge fund investor try to understand whether there is a social impact to the trading strategy? For example, is the fund taking economic rents from other investors or alternatively, increasing broad social welfare by providing liquidity to the market? These are difficult issues to understand even with very careful analysis. So, what is an investor to do when considering the ESG profile of such a hedge fund? There is no clear answer.

UN-PRI has attempted to provide a technical guide for evaluating ESG in hedge funds, but the analysis falls short of carefully defining all the ways that funds may have social impacts related to common ESG characteristics.[36] For example, it remains unclear how something as simple as short-selling a stock should be

[35] See, for example, Binfare, Brown, Harris, and Lundblad (2022) for evidence of endowments hedge fund allocations.
[36] See, https://www.unpri.org/download?ac=11344

evaluated through an ESG lens. On one hand, shorting a coal producer might be viewed as a positive ESG characteristic. On the other hand, some investors claim that shorting is a mechanism for manipulating prices, shareholder votes, or other undesirable practices that could result in an unfavorable "S" or "G" evaluation. UN-PRI cites the example of Japan's Government Pension Investment Fund (GPIF) suspending the practice of stock lending because of concerns about temporary transfer of ownership rights.

Even more challenging for ESG evaluation of hedge fund portfolios are cases that are entirely out of scope of ESG metrics. For example, many hedge fund strategies create positions with complex derivatives and trade assets such as currencies and sovereign interest rate products that have no clear ESG characteristics. Yet in many cases there could still be important social consequences related to such trading activity. Examples could include trades in distressed emerging market sovereign debt or positions against central banks, such as the famous Soros trade against the Bank of England. In these cases, investors will have to define their own approaches to evaluating the ESG profile of capital committed to hedge funds rather than rely on standards provided by external ratings or guidelines (e.g., UN-PRI).

As with other alternative asset classes, there is also limited evidence on the relation between ESG characteristics and fund performance. However, one recent paper by Liang, Sun, and Teo (2022) examines returns of funds that endorse UN-PRI and finds that they underperform other hedge funds on a risk-adjusted basis. They conclude that such funds are pandering to investors with ESG preferences, but we note that these finding are again consistent with predictions of long-run performance if these fund own assets that trade with a positive "greenium" induced by market preferences for nonpecuniary ESG characteristics.

ESG in Complex Portfolios

As institutional portfolios have grown more complex in recent decades, a wide range of additional challenges have arisen for portfolio managers. Evaluating ESG characteristics across a large and diverse portfolio is one of these. We see two major challenges to a holistic approach to portfolio-level ESG measurement:

1. **Asset-level measurement issues.** As the discussion above illustrates, considerable uncertainty remains about the "right" way to evaluate ESG characteristics of many assets and especially alternative investments. Commercially available products cover only part of the investible universe and even then, they often provide inconsistent information.For many alternative assets there will be limited transparency and for some there will be no established method for evaluating ESG factors. As a consequence, complex portfolios with large allocations to alternative investments will necessarily have "dark spots" where ESG attributes are largely unknown.

2. **Aggregation challenges**. A second challenge for large portfolios is how to aggregate information to the portfolio level. Even when information is available for assets, it may be incompatible because the preferred reporting methods differ across asset type. For example, ESG metrics may be available for public equities and private infrastructure, but they measure different attributes. In this case aggregating comparable metrics to get a sense of the overall ESG profile of a fund may be impossible.

As a practical matter, investors trying to evaluate ESG across a typical institutional portfolio will have to rely on a dashboard of various indicators. This will also require developing an understanding of how specific metrics are calculated and of differences in metrics across asset classes.

Our concern is that this leads to a difficult problem for portfolio managers, who have a mandate to incorporate ESG factors into the investment process. If decisions are driven by inaccurate or incomplete data at the

portfolio level, then it could be unclear how to define investment objectives and constraints. We see the potential for portfolio-level ESG analysis inducing perverse and counter-productive incentives to meet an objective. For example, if some asset classes are simply less transparent and ESG data are less robust, it could lead to over- or under-allocation to these assets or sub-optimal substitution between them. Anecdotal evidence suggests that this has occurred in the energy industry.[37]

We provide a final word of caution for how portfolio-level analysis of ESG may be distorted from the differing roles of active and passive investors. While one of the UN-PRI guiding principles is to be an "active owner," this has a more limited meaning in public markets than in many private investments. In public markets, being an active investor typically involves being a vocal advocate for ESG issues and voting shares accordingly. In contrast, being an active owner in a private equity fund or an activist hedge fund can mean working directly with management (or even directing management) to make substantial changes to an investment's ESG profile. This type of activity is likely to be more impactful to corporate operations than simply voting shares. It can also be more financially rewarding to investors because it allows for the capture of a "greenium" when a "brown" asset is converted to a "green" asset. Yet, a portfolio-level evaluation of ESG characteristics would typically penalize these change agents because of their initial investments in "brown" assets.

Altogether, we remain skeptical that portfolio-level ESG analysis can be an efficient, or even effective, mechanism for producing meaningful social advances. The combination of unclear objectives and incomplete information suggest that ESG at the portfolio level remains an ill-defined concept and should not be a primary focus area for responsible investors. Instead, portfolio managers with a social mandate should resource asset-level managers to operationalize ESG objectives.

IV. Conclusions

This white paper has provided a framework for assessing trade-offs associated with ESG investing and, more broadly, the concept of stakeholder capitalism. We have framed our analysis in a way that should be useful for institutions investing in alternative assets. Our analysis provides some new insights, but also raises new questions. We summarize some of these here:

What we know:

- ESG factors appear to be value-relevant because they provide a lens for making better traditional investment decisions.
- In addition, there appears to be a valuation premium (greenium) for assets with desirable nonpecuniary ESG characteristics. However, the existence of the ESG premium suggest long-run average returns will be lower for assets with high ESG ratings.
- Because ESG factors have documented real-world valuation implications, ignoring these (or legislation banning their consideration) would imply a violation of fiduciary responsibility.

What we don't know:

- Large swaths of the alternative investment landscape do not have well-defined methods for evaluating ESG characteristics. In many cases, it will be difficult to identify practical methods for ESG measurement in the alternative investment space.

[37] See, for example, "Who buys the dirty energy assets public companies no longer want?" *The Economist*, Feb. 12, 2022.

- While certain assets command a premium because of their overall ESG characteristics, it is not known how individual characteristics are valued and if premiums vary significantly across industries or individual companies.

What we would most like to know:

- Whose preferences are reflected in valuation premiums associated with ESG? If these are the preferences of asset managers (e.g., Larry Fink or pension bureaucrats) instead of end investors, this could lead to inefficient social outcomes.
- How can industry, commercial, and regulatory efforts be standardized to provide the most efficient process for consideration of ESG factors in complex diversified portfolios?

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This report was produced using the work of the contributors below, whose research and writings appeared in Kenan Insights, commentaries, report chapters and white papers throughout our year-long exploration of Stakeholder Capitalism. The report may not reflect the full views of every contributor but rather serves as a collection of their research and experience. Contributors include:

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