



2022 GRAND CHALLENGE

Stakeholder Capitalism + ESG Investing



Executive Summary

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 broadening of a business's mandate beyond maximizing profits to account for its impact on customers, suppliers, employees and societal issues (such as climate change and income inequality) is not only controversial, but complex. And as an increasing number of businesses grapple with the adoption of environmental, social and governance 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.

Based on our yearlong study of this topic, we believe that jettisoning profit maximization is not a sustainable solution. Rather, incorporating the nonpecuniary

preferences of change agents such as shareholders while acknowledging their limited impact will provide the best outcome. Along with this approach comes a renewed appreciation for the role of government policy actions in achieving broad societal goals that we cannot realistically expect private market forces alone to address. Consequently, our approach is to provide a framework that allows for a clear understanding of the optimization problem facing corporate decision-makers 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 will be able to 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 simply 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 traditional model and should not be controversial.
2. When no clear win-win solutions exist, the simply sustainable model still examines trade-offs through the lens of shareholders' preferences for societal benefits. More specifically, shareholders can, and 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 consider pecuniary and nonpecuniary factors versus invest-

ment 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 valuing 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. Or more simply put, in the long run, investors valuing companies that rate highly on ESG 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): Company initiates ESG-related corporate actions that result in larger and/or safer cash flows.	Stock returns will be above average as the company generates unexpectedly high (and/or less risky) cash flows.	Stock returns will be average for new investors because prices already reflect expectations of better ESG-related cash flows.
Nonpecuniary Benefits (Values): Company initiates ESG-related corporate actions that do not result in larger or safer cash flows but are still valued by investors.	Stock returns will be above average as investors bid up the stock price because of the desired non-pecuniary ESG attributes – thus creating a “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 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 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 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 stock price 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. A clear implication of our analysis is that coordinated government policy will be the only viable solution in some cases, especially for environmental issues. Nonetheless, optimal ESG implementation will be effective at addressing many governance and social priorities.

8. 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 retail investors.

Stakeholder Capitalism: What It Is, What It Isn't, and a New Model for Measuring Stakeholder Trade-offs

Throughout 2022, the Kenan Institute explored ESG factors as they relate to the decisions of corporate managers and investors. We have framed this 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.

Before exploring 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. 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

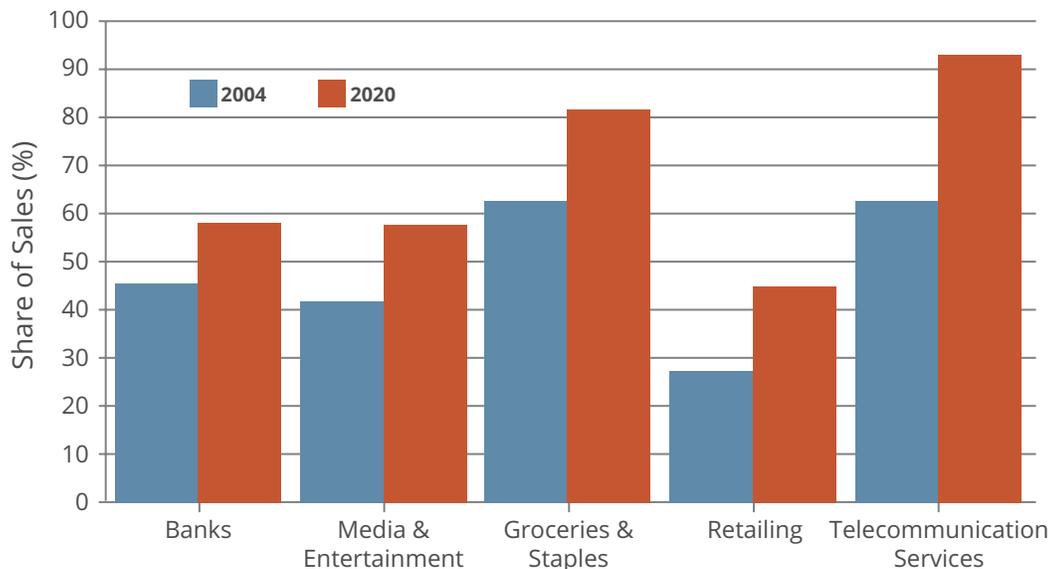
In the textbook model of shareholder capitalism, a firm tries to maximize profits by producing the highest output at the lowest cost. All of management's decisions are based on that principle: hire the workers with the right skills or train existing workers; invest in plant, equipment, software, and 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 this ideal setting, 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 below illustrates the meaningful decline in competition during the last 15 years, with research suggesting it goes back much further.¹ The increased firm concentration

¹ See Shapiro (2019)

Figure 1: Industry Share of Sales of Four Largest Firms



Source: MSCI, based on investable market

we see today means higher prices, lower output, less dynamism and fewer startups.²

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 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 long-term 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.³

² See Shambaugh, Nunn, Breitwieser & Liu (2018)

³ See Edmans, Li & Zhang (2020)

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).⁴ 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. UNC Kenan-Flagler Business School Professor Eva Labro, a Kenan Institute researcher, 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.⁵ 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.⁶

No Standard Stakeholder Model

With the understanding that shareholder primacy has its challenges, stakeholder capitalism has emerged as a model that holds the potential to 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

⁴ See Holmstrom & Milgrom (1991)

⁵ See Hemmer & Labro (2017)

⁶ 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/>



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.

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.”⁷ 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 that may still mean difficult choices need to be made which benefit one stakeholder or its concerns more than another.”⁸ This should be done, Schwab argues, by “separating the consultative process from the decision-making one.”

“In the consultative stage, all stakeholders should be included. ... [whereas] in the decision-making stage,

⁷ See Stakeholder Theory. (n.d.).

⁸ See Schwab & Vanham (2021)

only those mandated to make decisions should be able to do so, which means in the case of companies, respectively the board or the executive management.”⁹

Professor Sarah Kaplan of the University of Toronto’s Rotman School of Management, an expert in stakeholder trade-offs, believes companies can innovate around many trade-offs. “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.”¹⁰ Kaplan and Schwab use specific company cases – for example, how to balance consumerism and sustainability – to illustrate applications of their models.¹¹ Their models can be boiled down to the following: if businesses work hard enough, they can often create win-win solutions.

From an economic modeling perspective, one way of incorporating stakeholder needs is to create an internal market in which the excess value created by each stakeholder is measured, ascribed to the stakeholder, and then allowed to be traded within the firm. Thus, management has clear metrics of stakeholder

⁹ See Schwab & Vanham (2021)

¹⁰ See Kaplan (2019)

¹¹ For example, see Gerretsen & Kottasova (2020, May 6)

benefits. A theoretical model that incorporates this market-based model for three stakeholders whose value is easy to measure – employees, consumers and shareholders – leads to an efficient allocation of resources.¹² However, this outcome is only valid if there is only one firm serving the market and the stakeholders have the same abilities and tastes – i.e., they all are equally productive or care about the environment in the same way. If this model is extended to multiple firms or individuals with different tastes, the model suggests that non-shareholder claims must be diminished to maximize society's creation of goods and services.

Another modeling effort considers that “stakeholder firms are more concerned with avoiding bankruptcy to protect their employees and suppliers.”¹³ This implies that stakeholder firms are more valuable when cost uncertainty exceeds demand uncertainty. This approach may explain how a stakeholder orientation succeeds in Germany and Japan because those countries have a greater manufacturing orientation, where firms are likely to face more cost versus demand uncertainty – a contrast to heavily service-oriented businesses based in the U.S. This model also incorporates potential competition between stakeholder and shareholder firms and finds stakeholder-oriented firms can thrive as long as the industry faces the right balance of risks and the firms do not tilt too far in the stakeholder direction (which is similar to the model discussed above).

We believe our model, described in detail below, 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 inter-

ested in incentivizing managers to care about ESG-related factors.

Consultants and Businesses Haven't Solved This Issue

Given the intense interest, 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.¹⁴

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.

Outside of the academic literature and reports from consulting firms, corporations themselves are weigh-

¹² See Magill, Quinzii & Rochet (2015)

¹³ See Allen, Carletti & Marquez (2015)

¹⁴ See Hunt, Nuttall & Yamada (2021)

ing 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 to anyone depending on how it is read – perhaps deliberately. 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 that 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.

Stakeholder Capitalism in Practice

Moving away from the proposed ideal models and vague statements by the Business Roundtable, we seek to prescribe a model that can work in practice. As noted earlier, stakeholder capitalism is more of the corporate norm in Europe and Japan. An analysis of the 50 most valuable firms in Germany, the Netherlands and France found that the potential benefits of greater environmental ("E") and social ("S" – in the form of labor) focus were outweighed by the cost of worse governance ("G").¹⁵ As a result, the European companies on net had lower equity market valuations than similar U.S. and U.K. counterparts. This raises the question of whether bad governance may be separated from good environmental and social investments.

Meanwhile, an analysis of 100 private equity transactions in U.S. states that authorize corporate leaders to give weight to stakeholder interests when considering a sale of their company indicates that corporate leaders used their discretion to obtain gains for shareholders, executives and directors, rather than stakeholders, such as employees who were at greatest risk from the transaction. Moreover, "in the small minority of cases in which some stakeholder protections were formally included, they were generally

¹⁵ See Rajgopal (2021)

cosmetic and practically inconsequential.”¹⁶

This is not to say that individual companies have not been successful at integrating stakeholder needs and creating strong market success. Salesforce is seen as one of the exemplars.¹⁷ However, such success is often the result of senior leadership focus or because it was always part of the corporate DNA, which in many cases was built into a firm’s ownership model. For example, Vanguard is a mutual company owned by its investors, while Patagonia is a certified B Corp, which must meet certain ESG standards.¹⁸ Sen. Elizabeth Warren has proposed converting all U.S. companies with revenue greater than \$1 billion into benefit-type companies; however, *much* more work is needed to assess the scalability of these models. In general, given the recently renewed interest in stakeholder capitalism, rigorous analyses of the success of stakeholder initiatives are relatively new and the results previously cited should be seen as preliminary.

Stakeholder = Shareholder + Change Agents?

Rather than asking management to solve stakeholder issues, we should consider whether stakeholders themselves can and will act as change agents within the shareholder model. In particular, does the expansion of ESG frameworks among corporations and investors offer an opportunity to embody stakeholder principles within a shareholder model? Later in this report, we explore how ESG could express stakeholder capitalism, and specifically how various stakehold-

ers – as change agents – can drive influence among investors and corporate executives.

But first, it is important to discuss who the potential change agents are. The ones most often cited are employees, investors, consumers and governments. Gaining a better understanding of their motivations and tastes can create the win-win situations sought by the formal and holistic models. Incorporating those change agents into the decision-making process may be value accretive to the firm, but change-agent self-interest may also lead to accretive yet inefficient allocation of resources from a societal standpoint.

Finally, we have to acknowledge the limitations of the change agents, especially on macro issues such as the environment or yawning wealth disparities. While a narrower gap between CEO and cleaning staff pay may motivate employees and spur consumers to buy a company’s products, government policy needs to play an important role through improving educational outcomes, investing in underserved communities, and enacting other motivational progressive tax and spending policies such as the earned income tax credit.

Putting this all together, stakeholders other than shareholders can and should play an important role in making business decisions. However, there is no clear model to incorporate their interests into corporate governance, and real-world examples attempting to do so have led to mixed outcomes.

A New Model for Stakeholder Capitalism

The analysis to this point suggests no room for a stakeholder capitalism model that deviates from traditional shareholder supremacy. Thus, instead of

¹⁶ See Bebachuk, Kastiel & Tallarita (2021)

¹⁷ To learn more, see <https://www.salesforce.com/company/stakeholder-capitalism/>.

¹⁸ For a discussion of the potential ESG impact of Patagonia’s change in ownerships see <https://kenaninstitute.unc.edu/commentary/is-patagonias-yvon-chouinard-a-stakeholder-capitalist-or-an-altruist/>.

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 traditional stakeholder capitalism by demonstrating how certain corporate actions that benefit other stakeholders can decrease profitability and yet increase shareholder value.¹⁹ 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.

The Model at Work

Before diving into a more rigorous analysis, we provide a simple, stylized example to illustrate the 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

¹⁹ 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-wrong-and-how-to-get-it-right/>

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.

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*.²⁰) 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*.

²⁰ To learn more, see <https://kenaninstitute.unc.edu/kenan-insight/does-esg-investing-generate-higher-returns/>

greenium

A **greenium** is the premium that investors are willing to pay because of their preferences for green energy over brown energy and not because of the financial performance of the companies.

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 non-pecuniary 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 consider to be negative impacts while other companies have positive impacts (i.e., positive and negative externalities). Investors may observe and

What are the attributes of a rigorous model of stakeholder capitalism?

- **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.



measure these nonpecuniary effects 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 with 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.

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 of stakeholder capitalism has several important implications:

1. If sufficiently precise estimates of social impact and corporate valuation effects can be obtained, managers will use the 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 stakeholder projects 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.²¹ 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.

²¹ See Baker, Bergstresser, Serafeim, & Wurgler (2018) and Zerbib (2019)

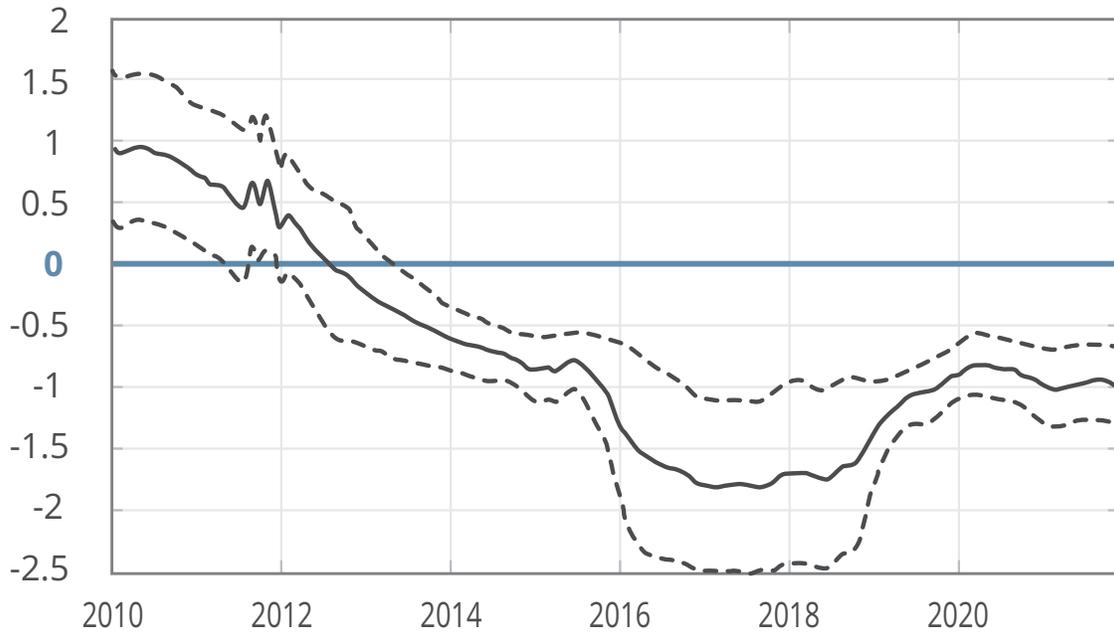
Finally, we note that this model of stakeholder capitalism should make investors of all types as happy as they can be in a world where some investors have nonpecuniary preferences. For example, the strongest advocates of ESG can buy the highest-rated companies for the factors they care most about – and 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) use 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 been evolving over the last decade in

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).

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.

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:

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

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_j s 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.

A Note About ESG Investing

Our model above 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?

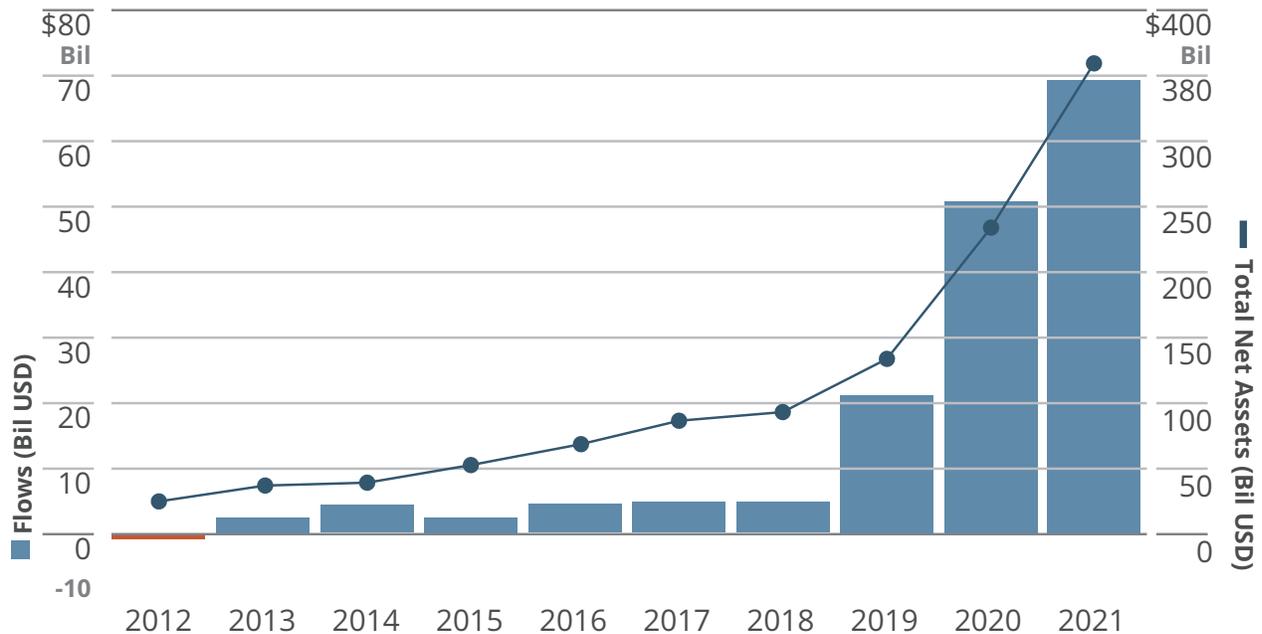
To be sure, interest in ESG investing has exploded. In the United States, ESG investing has moved from a niche market to the mainstream during the last few years (see Figure 3). Wall Street has increasingly

been advocating for investment strategies based on ESG factors, arguing these generate “more stable and higher long-term returns.” This has also been a global movement. Internationally, as of the end of 2021 there were more than 3,800 signatories to the United Nations’ Principles for Responsible Investment, representing major asset owners, investment managers and service providers from around the world, with assets under management of nearly \$30 trillion USD (and continuing to grow).²²

With this newfound popularity has come increasing controversy. 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

²² To learn more, see the Principles for Responsible Investment 2022 Annual Report at <https://www.unpri.org/annual-report-2022/signatories>

Figure 3: Growth of ESG Investment in the U.S.



Source: Morningstar Direct as of Dec. 31, 2021. Includes Sustainable Funds as defined in Sustainable Funds U.S. Landscape Report, January 2022. Includes funds that have liquidated, but excludes funds of funds.



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.²³

Can ESG Investing 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.²⁴ 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 non-pecuniary impact or else because they may help to hedge important downside risks. For example, under this argument, the purported 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.

²³ See for example Cohen, Gurun & Nguyen (2021)

²⁴ See Pástor, Stambaugh & Taylor (2021)

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.²⁵

Second, there is also deep skepticism among some that ESG integration is anything 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.²⁶ 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

²⁵ 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>

²⁶ See McCord (2021, August 24)

In Conclusion: The Undeniable Shift

greenwashing is an unfortunate and potentially costly distraction for both investors and policymakers as it may hinder an appropriate policy response.

Finally, for at least some of these considerations, there simply must be real economic trade-offs. Climate risk, as a central example, is the result of an externality problem where the climate cost of production is not financially incurred by the actual producers and is instead borne by society.

While there are clearly growth opportunities in technological solutions that will help to address the climate crisis, we still need to internalize collective costs. Forcing those who are imposing an externality on others, like carbon emissions, 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 also support related technological growth opportunities. Accordingly, then, where are the policymakers? While ESG integration may help on the margin, nothing will replace a carbon tax (widely accepted by economists) to force 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.²⁷ 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.²⁸

Despite concerns about practical implementation, the conversation around corporate stakeholders has undeniably shifted toward considering an increasingly broad range of players and issues. We are witnessing an expanded discussion about the role of business in addressing important societal issues that is heartening for many. Our yearlong study indicates that there is much promise from this awakening – though pitfalls remain. Implementing a fully encompassing stakeholder-based solution is not a viable option. There are simply too many trade-offs that cannot be resolved (and win-win solutions are just a form of profit maximization). However, shareholders can help move the needle toward conducting more stakeholder-focused business. Moreover, there are limits to what shareholders can do, and thus government intervention is necessary especially for addressing diffuse issues such as climate change. We have provided evidence and frameworks for some solutions, but many issues remain unresolved. In order to resolve them, we must begin by acknowledging the inevitability of trade-offs – and recognize that businesses and policymakers must work together to drive solutions informed by rigorous, evidence-based analysis.

To access our full analysis, report and other key findings from our 2022 exploration of stakeholder capitalism and ESG investing, ***please scan the below*** or visit kenaninstitute.unc.edu/stakeholder-capitalism.

²⁷ See Atta-Darkua, Glossner, Krueger & Matos (2022)

²⁸ See Pless (2022)



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