



Investors as Stewards of the Commons?

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Investors as Stewards of the Commons?

George Serafeim* Harvard Business School

Abstract

Over the past few years, there has been a significant increase in the number of initiatives seeking to mobilize investor voice towards positive social impact. In this paper, I provide a framework outlining the role of investors as stewards of the commons. While companies are increasingly addressing environmental and social issues that also improve their economic value, for some of these issues individual company action is costly. At the same time, for a further subset of those issues, company action coupled with collaboration between companies is value enhancing. However, collaboration between companies is notoriously difficult and fragile requiring commitment mechanisms. I suggest that a small set of large institutional investors, importantly, but not exclusively, index and quasi-index investors, could provide this commitment mechanism. Common ownership of competitors within industries and long-time horizons in ownership of shares are key characteristics for investors that could act as stewards of the commons. Social pressure fueled by socially responsible investment funds and non-profit organizations and customer pressure from individual investors are critical in mitigating free-rider problems among asset managers and sustaining engagement practices. Finally, I explore the limits and anticompetitive concerns to the theory of change presented here.

Keywords: stewardship, engagement, governance, sustainability, environment, inclusion, inequality, social change, investors

^{*} George Serafeim is the Jakurski Family Associate Professor of Business Administration. I am grateful to David Freiberg for excellent research assistance. I am very thankful to Rebecca Henderson, Sakis Kotsantonis, Chris Pinney, Paul Rissman, and my students in the course "Reimagining Capitalism" for insightful comments. I gratefully acknowledge financial support from the Division of Faculty and Research Development of Harvard Business School. Contact email: gserafeim@hbs.edu.

I. INTRODUCTION

Increasing environmental degradation and social inequality represent two key problems of the 21st century. Tropical forest loss, biodiversity loss and carbon emissions all increased exponentially, in the last 100 years, putting at risk both local and planetary ecosystems (Bopp, et al. 2013; IPCC 2014; MacFarling Meure, et al. 2006; Etheridge, et al. 1996; Hulme, et al. 2002). In the past few decades, social inequality within countries has accelerated, while a large part of the population in some developed countries has experienced negative wealth growth (Saez and Zucman 2016).

Conventional thinking suggests that governments should deal with these issues through taxation, subsidies, regulations and other policy instruments. Of course, the role of government is crucial. But as these problems keep worsening, many are now asking the question if business should play a role in providing solutions. For example, while the Millennium Development Goals placed emphasis on the role of the governments in achieving them, the Sustainable Development Goals (SDGs) formally recognize the role of the private sector in addressing some of the world's most pressing environmental and social challenges. What started as a corporate social responsibility movement, where corporations established programs to allocate resources towards projects that benefit employees, local communities, and other stakeholders, has more recently evolved to focus on whether positive social impact can be integrated at the core of the organization thereby guiding both strategic and operating decisions (Porter and Kramer 2011; Eccles, Ioannou and Serafeim 2014).

In many cases, there is a clear economic rationale for such private sector participation. Studies document that improving firm performance on business-relevant ESG issues based on a firm's industry membership, has a positive association with future financial performance (Khan, Serafeim and Yoon 2016). A company's efforts to improve its social impact could result in cost savings, increased brand value, innovation, employee productivity, and lower cost of financing

(Korschun, Bhattacharya and Swain 2014; Edmans 2010; Cheng, Ioannou and Serafeim 2014). As a result, there is also a clear incentive for investors as they seek to realize better risk-adjusted returns, to consider a company's disclosures and associated performance on environmental and social issues. Consistent with this we now have evidence that stock prices reflect more firm-specific information for firms that disclose more business-relevant ESG information, where business relevance is judged according to their industry membership (Grewal, Hauptmann, and Serafeim 2017).

While these studies suggest that positive social impact and financial returns could be complementary it is not clear that one can conclude from these studies that over time firms will act in a way that will provide solutions to many of the problems we face. This is primarily for three reasons. First, while in a relative sense a firm that improves its ESG performance could be better off financially in the future, compared to other firms, it does not mean that the observed action of this firm is enough to make a meaningful contribution to the problem. For example, an electric utility company might find that it can improve its profitability or lower its risk profile and increase its valuation, by increasing production of renewable energy to 10 percent of generation but not necessarily if it increases production to 20 percent over a five-year period. However, 10 percent of generation production from renewables is clearly not enough to significantly curb carbon emissions and mitigate climate change. Similarly, a firm might be better off by lifting wages for lower level employees by \$1 per hour but it might not be economically viable to lift wages by \$2 per hour. However, increasing wages by \$1 could still leave these people with below living wages.

Second, there are cases where improving a firm's social impact does not pay. For example, in some cases consumers are not willing to pay more for "green" products, and in most cases only subsets of the customer base for specific products are willing to choose greener products

(Hainmueller and Hiscox 2015). As a result, firms that take costly actions to source products in a sustainable way could find themselves with a higher cost structure, lower profitability margins and as a result at a competitive disadvantage. Similarly, sourcing from suppliers that respect labor rights might be more expensive in some cases.

Third, while in some cases increasing wages or selecting suppliers with better environmental practices might bring a financial benefit in the long-term, short-term pressures on the business might make business leaders averse to making such investments. The market for corporate control, the design of executive compensation packages and the board of directors' evaluation horizons could be barriers to such decisions (Brochet, Loumioti and Serafeim 2015).

In the absence of a regulatory intervention that forces prices to reflect all externalities imposed by market participants, a possible solution to these issues is pre-competitive collaborations that level the playing field for all market participants and alleviate the competitive disadvantage. Several collaborations have been operational for a significant amount of time and in general aim to develop industry standards, generate data, create industry knowledge or fuel product development (Altshuler et al. 2010). Denim industry leaders in Amsterdam have come together, with the help of the Amsterdam University of Applied Sciences, to form the Alliance for Responsible Denim (ARD). The goal of ARD is to produce denim in a sustainable way by tackling the three main ecological issues the industry faces: water, energy and chemicals. In another example, GSMA, the trade body representing mobile operators, has developed a framework to collaborate in maximizing their contribution towards the SDGs, in particular improving infrastructure, reducing poverty, providing quality education, and acting on climate.

Some collaborations have resulted in significant improvements in operations and outcomes for many stakeholders. Others have been less effective and successful at achieving their stated

goals. For example, the American Beverage Association's partnership with the Alliance for a Healthier Generation, which sought to limit beverage portion sizes and set content standards for beverages sold in schools, released a report claiming beverage calories shipped to schools had fallen by 58% after just two years of implementation. However, studies claimed that the effects of the industry's efforts were uncertain and failed to address important considerations (Sharma, et al. 2010). The initiative placed far less restrictions on high schools, where much of sugared-beverage consumption occurred (O'Toole 2007) and failed to regulate calorie-dense sports drinks, diet drinks, and new categories of drinks, such as energy drinks (Mello 2008). But even after successful collaborations are established they could be fragile as companies have incentives to defect. The Roundtable on Sustainable Palm Oil (RSPO) has successfully brought a large portion of the world's major palm oil using companies together under one organization and has been integral in increasing the amount of sustainable palm oil available for purchase. Nonetheless, research has found that despite its successes, achieving compliance from all member corporations has proven challenging and the organization has failed in halting certain palm oil related ecological events, such as habitat destruction (Nikoloyuk, et al. 2010; Ruysschaert and Salles 2014).

In this paper, I lay out a framework suggesting that investors are a potential mechanism to build and sustain such pre-competitive collaborations. I identify two characteristics for investors that are likely to engage with companies at the industry-level on issues of environmental and social importance: long time horizon and significant common ownership of companies within the same industry or supply chain. Three types of investors satisfy both criteria. First, large index asset managers, such as Blackrock, State Street and Vanguard. These investors hold significant shares of the equity and as long as a company remains in the index they will keep holding the stock. Second, active institutional investors, that are large enough effectively becoming quasi-indexers

(broadly diversified low turnover portfolios) as they seek to limit index tracking error, such as Fidelity, JP Morgan, BNY Mellon, and Northern Trust. Third, large pension funds such as Norges Bank Investment Management, AP, and New York Common Retirement Fund. These investors also tend to hold significant portions of the equity shares of many companies while at the same time matching assets to long-term liabilities. Large index and quasi-index investors have now built teams that engage with companies in their portfolios while large asset owners have been among the leaders in engaging with companies on environmental and social issues.

This does not mean that other investors do not have a role to play in this theory of change. In fact, I suggest that two other types of investors, socially responsible investment funds and individual investors, play a key role in addressing free-rider problems at the large institutional investor level (i.e. temptation of one asset manager to free-ride on the engagement efforts of other asset managers) and providing direct incentives for engagement to large institutional investors. I discuss the role of smaller institutional investors and in particular socially responsible investment funds but also non-profit organizations that are member organizations for investors, such as CERES and the Principles for Responsible Investment (PRI). These investors and investor organizations are more likely to bring environmental and social issues to the public domain putting pressure both on companies and larger investors to act. This is consistent with the engagement practices of socially responsible investors in the past few decades, being the first to advocate for these issues through private dialogues and publicly by filing shareholder proposals.

Moreover, I discuss the role of individual investors. I find that they have a critical role in solving the free-rider problem at the institutional asset management space. The more individual investors care about the environmental and social attributes of their investments the less likely it is that asset managers will free-ride on other asset managers' efforts. Consistent, with this

proposition, as individual investor interest in the ESG characteristics of their investments has grown, we have witnessed an increase in the number of asset managers that practice active ownership.

There are limits to the theory described in this paper. For example, for issues where such collaborations could be, even in the long-term, economically detrimental to the whole industry, investors are likely to be reluctant to engage even if a societal benefit might be at stake. In those cases, stewardship of client assets would conflict with stewardship of the commons. Similarly, in cases where many competitors are large private companies that are not publicly listed, it is likely to be harder to establish such pre-competitive collaborations as these investors will be ineffective at mobilizing action for a large part of the market. I discuss these issues in addition to issues surrounding potential anticompetitive behavior and collusion between companies in the same industry, when investors have common ownership.

It is important to note that this paper addresses in detail one mechanism through which investors can enable better societal outcomes; exercising 'voice' and voting rights in the governance process of corporations. There are other mechanisms that this paper does not discuss. For example, increasing access to financing to individuals, thereby allowing them to receive better education, healthcare or shelter is a very important one. Second, shunning organizations that violate social norms, a case in point being the divestment movement. There are excellent treatments of the benefits and costs of these mechanisms in other papers (Pinsky 2001; Ansar, Caldecott and Tilbury 2013).

The remainder of the paper proceeds as follows: section II discusses the case for collaboration. Section III describes recent developments in investor engagements in environmental and social issues and which types of investors are more likely to be able to build and sustain

collaborations between portfolio companies. Section IV discusses the free-ride problem at the asset management level and how it could be mitigated. Section V discusses the role of socially responsible investment funds and individual investors in the theory of change. Section VI discusses concerns about collusion because of common ownership and investor engagement. Finally, section VII concludes with limits to the theory of change presented in this paper.

II. THE CASE FOR COLLABORATION

Figure I provides an illustration of a taxonomy of the economics of different ESG issues. The bottom branch shows issues where an individual company acting on its own can improve its ESG performance and its financial performance. Improving operating efficiency by reducing energy, waste and water consumption or adopting workplace practices that improve employee well-being while raising employee productivity are representative sources of value that many companies have already tapped. The middle branch shows issues where individual and collaborative firm action is detrimental to financial performance. The top branch is the focus of this paper where individual firm-level action is value destroying but collaboration can provide a solution and catalyze action. These cases can be simply explained in terms of the classic prisoner's dilemma. In the game, regardless of what the other prisoner decides, each prisoner gets a higher reward by betraying the other ("defecting"). The reasoning involves an argument by dilemma: B will either cooperate or defect. If B cooperates, A should defect, because going free is better than serving 1 year. If B defects, A should also defect, because serving 3 years is better than serving 5. As a result, either way, A should defect. Parallel reasoning will show that B should defect.

Why would different fishing companies not exploit as many fish stocks as possible in the ocean? If one company does not then another one will, thereby gaining a competitive advantage by increasing its sales now. This naturally leads to overconsumption of resources and depleting

the stock of those resources. Similarly, why wouldn't a consumer goods company sell products to children that contribute to the obesity epidemic, due to the high sugar concentration? If one company does not then another will, as such products are highly attractive due to the chemical reaction instigated by the sugar concentration. Public goods, such as information, also have this structure. Why would an energy company provide information on government payments in different countries with operations? If one company does and another one does not then this could undermine its competitiveness as governments in corrupt countries could shun away from the company that increased transparency. This leads to undersupply of information that could help improve governance, government effectiveness, and the well-being of citizens (Healy and Serafeim 2017).

A company's incentive to defect while a competitor cooperates towards a certain goal can result in a free-rider problem. Around us these problems are widespread. Take for example the coffee and cocoa industry that are facing supply chain stability risk as environmental degradation caused by the adoption of large scale production has harmed plant fitness and subsequently the total supply and quality of cocoa and coffee beans. Reversing this process requires manufacturers to source from sustainable producers, which can only be accomplished through costly investments into educating and financially empowering farmers to utilize sustainable farming techniques. If one company makes such investments, other companies are not precluded from attempting to source cocoa or coffee from these sustainable sources. Non-cooperating companies therefore get to free-ride and acquire access to sustainable products creating a disincentive for a company to act in the first place.

Nonetheless, collaborations have tangible industry-wide benefits. Collaborations are mutually beneficial and can allow the industry to collectively avoid negative effects on the whole

industry. The example of electric utilities firms represents an interesting case in point where lack of collaboration impeded action with negative consequences for the whole industry. The industry lost about half of its market value following an inability to collaborate towards the decarbonization of the utility sector in the face of increasing climate related regulation and cost competitiveness of renewable energy. Unfortunately, many pension funds that had invested in utility firms, conventionally thought as low risk securities, suffered as a result. Collaborations can also directly create value for an industry. GSMA initiatives on improving infrastructure, reducing poverty and providing quality education are creating more potential future users of their services. Recognizing the value of collaboration, several industry initiatives have been formed to address issues of importance in an industry. The International Council on Mining and Metals' has developed transparency principles for mining firms while the Responsible Care program of the chemical industry focuses on outcomes ranging from employee safety to environmental impact. Similarly, the Global Agri-business Alliance is developing an agreement for companies operating in different parts of the agriculture value chain on standards of conduct for improving livelihoods of farmers, among other outcomes.

III. INVESTOR ENGAGEMENT

Many investors have now committed to be active owners. The concept of active ownership suggests that investors actively engage with the companies they invest in to discuss environmental, social and governance issues. These engagements happen both privately and publicly. This represents one of the six principles of the UN PRI, a non-profit organization that advocates for the adoption of a voluntary set of principles, which investors with more than \$60 trillion in assets under management have signed on.

A substantial amount of engagement often goes on behind closed doors and is unobservable to the outside researcher. This can take the form of emails, letters, phone calls and in person meetings with company managers. When such engagements do not satisfy the demands of the investor, some investors engage publicly by filing shareholder proposals. An increasing number of shareholder proposals are being filed on ESG issues, in addition to traditional corporate governance issues. In 2015, 34% were Environmental/social, 32% Board-focused, 18% Strategic/anti-takeover, and 15% Compensation-related (EY 2016). The topics of ESG proposals are diverse, ranging from disclosure of political contributions and compliance with human rights policies, to the adoption of a climate change policy.

Traditionally these engagements have been led by socially responsible investment funds or public pension funds. As the bottom branch of Figure I suggests, some of those engagements could lead to significant performance improvements for the company leading to increased productivity, better pricing or expansion to new markets. This is the case when social impact and economics align. Perhaps not surprisingly then, activist hedge funds are starting to consider ESG issues. For example, in its recently revised policy statement, Trian Partners notes that environmental and social issues "can have an impact on a company's culture and long-term performance and that companies can implement appropriate ESG initiatives that increase their sales and earnings." ¹

These engagement practices do not imply that the problems that require collaboration will be addressed. Most frequently investors lack the ability or the incentives to engage with companies at the industry level. There are two characteristics that would identify investors that could be effective at shifting the unit of engagement at the industry level. First, significant common ownership of different companies within the industry. Second, making investment decisions with

¹ Trian Partners Environmental, Social, and Governance Policy Statement – https://trianpartners.com/esg/

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a long-time horizon. Figure II illustrates this taxonomy separating investors along a spectrum with the two dimensions on the vertical and horizontal axes. This Figure is for illustrative purposes and it simplifies the complex reality of capital markets. At the most right upper hand side of the graph is large index investors followed by well-funded large pension funds. Actively managed funds would score lower on both dimensions as they are less likely to exhibit common ownership and they are more likely to exhibit shorter holding periods. An exception is active funds that are so large thereby becoming quasi-indexers. They hold a broadly diversified portfolio with low turnover thereby also exhibiting the necessary characteristics for being classified as owners of the commons. Underfunded pension funds are less likely to exhibit a long time horizon in decision making as short term funding pressures are more likely to be important. At the extreme of short holding periods one would find quant funds. Activist hedge funds tend to have very low common ownership as they concentrate on a few companies. Their time horizon could differ based on whether they invest in companies with an eye on changes in strategy and operations or based on financial engineering and changes in payout strategies.

Large pension funds have been engaging actively with portfolio companies for a long time. Engagement from index and quasi-index investors though is a more recent phenomenon. Before turning to index and quasi-index investors, I review shortly the engagement practices of large pension funds as they can also be a significant force for change.

Engagement Practices of Large Pension Funds

Several large pension funds have been engaging with companies for decades now. NBIM's 2016 Responsible Investment report says "As a large, long-term investor, we engage in dialogue with companies. Our holding size gives us access to board members, senior management and a range of specialists at the companies we invest in." In 2016, NBIM held 3,790 meetings with 1,589

companies. In 48% of those meetings NBIM raised ESG issues with management as a topic of discussion (NBIM 2016). NBIM is not the only large asset owner that engages with portfolio companies. New York Common Retirement Fund, CalPERS, and other large asset owners have been engaging companies on a range of ESG issues.

Consistent with the framework in this paper, the Swedish AP funds have been engaging, in addition to firm-level, also at the industry-level. For example, in collaboration with other investors in 2016 they engaged ten companies regarding the management of fish and shellfish throughout supply chains and several companies that purchase cobalt mines in the Congo. The 2016 report of the AP funds states that "the aim is to get these companies involved in cooperation with other companies... to establish a supply chain devoid of child labor and violations of human rights."

Engagement Practices of Large Index Investors

A notable trend is the rise in index investing. As of 2015, equity index fund market share was 34% and total index fund assets had reached \$4 trillion. In 2016, net new cash flow into index mutual funds was \$197 billion, up from \$166 billion in 2015 and \$59 billion in 2012 (Investment Company Institute 2017). As Vanguard's founder is often considered the father of index mutual fund investing, Vanguard is heavily indexed, as are BlackRock and State Street. Figure III shows the average percentage of outstanding shares held in US traded stocks by Vanguard, Blackrock and State Street on an equal and value-weighted (i.e. market capitalization) basis. The data for all shareholdings come from Factset Lionshares. Between 2002 and 2016 average value-weighted (equal-weighted) shareholdings more than doubled from less than 8 to 16% (4 to 8%) increasing significantly the power of voice of index investors.

For more than a fifth of all American publicly traded firms BlackRock is the largest shareholder (Azar, Raina and Schmalz 2016). BlackRock has \$2.66 trillion assets under management (AUM) in equity funds while State Street has \$1.47 trillion. Vanguard does not disclose equity proportion of AUM, but has \$4 trillion total AUM compared to BlackRock's \$5.4 trillion and State Street's \$2.47 trillion.² The AUM of these companies is the result of two trends within financial markets: increasing AUM under institutional investing and increasing concentration of assets in a few asset management groups. Therefore, there is a high probability these asset managers are the largest stock holders of every major company within a given industry.

Index investing does not allow the investor to divest from individual companies within the index without divesting from the index fully. Unlike a traditional investor, who can simply divest from a company as an indication of displeasure at financial performance or other considerations such as environmental externalities generated, the main tool for index investors is corporate engagement.

In recent years, the three largest index investors in the world, BlackRock, State Street, and Vanguard, all publicly disclosed letters they sent to either the CEOs or Board Members of the companies in their portfolios outlining expectations regarding corporate governance. While the contents of these messages vary between asset managers, the importance of proper corporate governance and long-term value creation are a common theme. In letters addressed in January 2016 by BlackRock and 2017 by State Street, environmental, social and governance (ESG) factors were identified as important components of long term value creation. Larry Fink, BlackRock Chairman and CEO, in his most recent letter to CEOs wrote:

Environmental, social, and governance (ESG) factors relevant to a company's business can provide essential insights into management effectiveness and thus a

14

² All values as of December 31, 2016 except BlackRock's total AuM which is as of March 31, 2017.

company's long-term prospects. We look to see that a company is attuned to the key factors that contribute to long-term growth: sustainability of the business model and its operations, attention to external and environmental factors that could impact the company, and recognition of the company's role as a member of the communities in which it operates.³

State Street provides Board Members with a framework and examples of how to begin working with management to focus on ESG issues. State Street classifies companies according to how they have "identified material environmental and social sustainability issues; assessed and, where necessary, incorporated the implications into their long-term strategy; and clearly communicated their approach to sustainability and its influence on strategy". Since 2014, State Street has identified climate change as a priority engagement issue citing the potential to affect long term performance.

Despite being engaged investors, these asset managers are not attempting to directly run the operations of the firm. According to State Street, while they believe ESG issues are critical to "enable economic prosperity and social progress over the long term" for their clients, they "recognize that companies through sound management and effective, independent board oversight are in the best position to determine what will create long-term value for shareholders."⁵

Engagement Practices of Large Active Investors with Quasi-index Funds

It is well-established that the holdings of many active funds are very close to holdings of their benchmark index (Bushee 2001). The literature calls these funds quasi-indexers as they have diversified holdings and low portfolio turnover consistent with a passive, buy-and-hold strategy of investing capital in a broad set of firms. It is natural that larger funds will behave more as quasi-

https://www.BlackRock.com/corporate/en-no/investor-relations/larry-fink-ceo-letter

 $\underline{https://www.ssga.com/investment-topics/environmental-social-governance/2017/Letter-and-ESG-Guidelines.pdf}$

15

³ BlackRock Annual Letter to CEOs

⁴ State Street Letter to Board Members

⁵ Ibid.

indexers. Active managers above a certain level of AuM simply have too much money to only invest in a preferred, restricted or concentrated portfolio. Fidelity, BNY Mellon, JP Morgan Asset Management, Goldman Sachs Asset Management, Northern Trust are some of the active assets managers that each one has more than a \$1 trillion in AuM. Such large assets managers market themselves as active managers of diversified portfolios, emphasizing restrained tracking error to their clients. Given tracking error concerns, an active manager who is benchmarked to an index is more likely to trade the stocks in that index (Wurgler 2011).

Using Bushee's (2001) classification I analyze how the institutional investor market has changed over time. I supplement the classification data with data from Thomson Reuters on equity holdings from 13-F fillings. Figure IV shows that over time an increasing number of funds and percentage of AuM are tied to quasi-index funds.⁶ The other two categories are dedicated funds (e.g. low turnover and concentrated position funds) and transient funds (e.g. high turnover and diversified position funds). The vast number of funds and AuM over time exhibit quasi-index characteristics. While the number of transient funds has also increased over time this is far outpaced by the increase in the number of quasi-index funds and AuM in those funds.

The engagement practices of many large active managers with quasi-index funds are relatively new, in some cases newer even compared to those of index investors. For example, in 2017, Fidelity Investments revised its proxy voting guidelines suggesting that it may support shareholder proposals calling for reports on sustainability, renewable energy, and environmental impact issues, and may also "support proposals on issues such as equal employment, and board and workforce diversity."

Implementing the Framework

⁶ In Bushee's classification the quasi-index type also includes index funds.

⁷ Fidelity Funds' Proxy Voting Guidelines, January 2017.

The large ownership stake held by these asset managers, individually and even more so collectively, and the high degree of common ownership results in the ability to simultaneously engage firms across an industry. While individual firm engagements can prove effective, engagement with multiple competitor firms alleviates free-riding concerns which can further incentivize cooperation, allowing asset managers to drive the creation of coalitions which would have likely not formed organically. Societal good can therefore be achieved by investors leveraging the full extent of their ownership influence.

Figure V shows examples of different industries, the percentage of shares held by large index funds and some critical ESG issues that these industries are facing where collaboration could be helpful. I report not only the average or median percentage of shares held by large index funds in each industry but also the first and third quartile to show the dispersion in those holdings. Interestingly, in most of the cases even the first quartile of shares held is above 10 percent suggesting significant number of shares held by these investors. Figure VI shows aggregate shares held by 12 of the largest active asset managers, identified by Investments and Pensions having close to \$12 trillion in AuM, as well as those held by the largest active manager (Fidelity). One can see that even active funds tend to exhibit significant ownership of many competitors in the same industry.

Figures V and VI show a wide variety of topics ranging from inclusion and access to affordable products in the education industry to obesity and customer health in the food and beverage places industry. These issues in these industries share many of the same economic properties of the prisoner's dilemma that the paper has been focusing on. For example, beef is one of the biggest drivers of deforestation globally converting forests to pasture for beef cattle, primarily in Latin America, destroying 2.7 million hectares of tropical forests each year (an area

the size of Massachusetts). It is costly for meat producers to address the issue of deforestation on their own. If they agree to slow down the process, they face the risk of losing market shares and revenues as they will not be able to find new pastures for beef cattle while other players in the industry will keep cutting trees down. As a result, the issue of deforestation requires coordinated action from the major players. Ceres and the PRI initiated a partnership in 2016 to tackle widespread, global deforestation driven by escalating production of beef, soy and timber, focusing initially on South America. The two organizations support global institutional investors pressing food and timber companies to eliminate deforestation and other related concerns.

In another example, apparel production is associated with water pollution at many stages of the value chain. Agricultural crop production (particularly cotton) has been linked with inefficient agrochemical use, resulting in over-application and excess chemicals leaching into water systems. Wet processing is also particularly impactful. The World Bank, for instance, estimates that 17–20% of industrial water pollution worldwide comes from textile coloration and treatment alone (WWF 2012). When it comes to water, fashion brands face the same risks across their supply chains. The geographical dispersion of production sites is low and therefore different players can benefit from collaborating on select engagements in priority river basins.

IV. WHY ENGAGE?

The same free-rider problem that exists at the corporate level also exists at the investor level. Why would an investor spend resources, money and time, to engage with companies when this investor will bear all costs but capture part of the benefits, since other investors hold shares too and they will capture part of the benefits? And how the increased costs associated with the engagement can be justified in the context of asset managers that compete on the basis of low management fees, such as index funds?

Direct Financial Effect of Engagement

There are three main arguments that underpin an analysis of investor incentives to engage. First, is a straightforward cost-benefit analysis of the engagement practice. Assume an index investor that charges twenty basis points in management fees and of course has no performance incentive fee. The financial benefit from increases in management fees will come if the investor can increase assets under management either by new flows or by increasing the market capitalization of its existing holdings. I set aside the issue of new flows for now, and I will come back to it.

It is difficult to document the precise effect on market value of a company as a result of engagement efforts. Dimson et al. (2015) document an abnormal stock return of about 2% across all ESG engagements of an asset manager (7% on successful engagements which in their sample represents about 17% of all engagements). A firm such as Blackrock reports to engage about 10% of the portfolio companies. Assuming that out of \$5.4 trillion, \$3 trillion are assets under management in equities and that the 10% of the portfolio companies also represent 10% of the portfolio on assets under management basis, one can calculate the financial benefits of engagement as 20 basis points times 10% of the portfolio companies being engaged times 2% increase in market value times \$1 trillion. This is equal to \$12 million a year in additional management fees. Of course, in this exercise I might have underestimated this benefit, if the increase in market capitalization is larger than 2% or if engagement increases the value of the portfolio every year by eventually improving a larger part of the portfolio, or if the investor charges higher fees. Similarly, I might have overestimated the effect if the increase in market capitalization is smaller.

What about the costs then? Blackrock reports a team of about 24 professionals working on stewardship (Krouse, Benoit and McGinty 2016). Assuming a \$200 thousand total compensation on average and \$2 million in operating expenses for the stewardship team provides a net benefit

of \$5.2 million. 8 Blackrock's net income in 2016 was \$3.2 billion making the net benefit just below 0.2% of net income. Therefore, any benefits from improving the market value of the engaged companies are unlikely to be an important incentive for investors to engage. I discuss below two reasons that are significantly more likely to be important motivators for investors' engagement practices.

Customer Pressure

One motivation for engagement is growing client demand for sustainable and ESG conscious investment opportunities. A 2014 UBS survey found 55% of respondents were willing to pay extra for products and services from companies committed to contributing a positive social and environmental impact, up from 45% in 2011 (UBS 2015). The same report found that 52% had purchased at least one product or service from a socially responsible company over the last six months and 67% would prefer to work for a socially responsible company.

Just as individuals want to make sustainable and socially responsible guided decisions regarding their employment and general consumption, they too want to make similarly directed investment decisions. A Morgan Stanley survey found 71% of individual investors were interested in sustainable investing (Morgan Stanley 2015). The survey also showed millennial investors were almost twice as likely as the overall individual investor population to invest in companies or funds targeting specific social or environmental outcomes, while female investors were nearly twice as likely as male investors to consider both rate of return and positive impact in their investment decisions. Furthermore, 65% of individual investors expected sustainable investing to gain prevalence over the next five years (Morgan Stanley 2015). Further survey work has found ESG investing highly appeals to both millennials and high net worth individual (82% high net worth

⁸ Salaries reported on Glassdoor for Blackrock investment professionals typically range from \$70-160 thousand.

and 88% millennial) with 47% of high net worth investors and 60% of millennial investors reporting that they would like to invest more in ESG (Legg Mason 2015). When surveyed 90% of financial advisors cite most ESG discussions are initiated by their clients (Legg Mason 2015).

But what has now spread in the retail investment space started from the institutional asset space. Increasingly asset owners, pension funds, family offices etc. integrate in their investment mandates ESG criteria asking from investment managers the capabilities they have in house to conduct ESG research that informs their investment and engagement practices. A survey of asset owners found that in 2015, 44% of asset owner contract mandates had specific requirements for ESG incorporation in decision making and 22% had engagement requirements (PRI 2015). In 2014, 16% of the contracts specified a weight on ESG criteria in management selection.

Societal Pressure

While customer preferences are important determinants of available investment vehicles, asset managers also face social pressures to integrate sustainability and ESG factors into their investment strategies. Like society demanding businesses undertake social ventures, asset managers with large total AuM are beginning to face pressure from societal stakeholders to leverage their influence for positive social benefit.

Transparency is an important element in determining the impact and degree of sustainability of asset managers. In 2016, Morningstar began offering the first widely available ESG ratings which reported on a portfolio rather than on the company level. Similarly, a new rating system, Climetrics enables investors to gauge and compare the climate impact of investments in funds worth a total of €2 trillion. It provides investors with a 1-5 rating based on data from CDP and ISS-Ethix Climate Change Advisors. Funds are rated on the climate change impact of its portfolio holdings, as well as on the asset manager's own application of climate impact as an

investment and governance factor. The availability of such information increases pressure on asset managers providing sustainable products as it allows individuals and institutions to scrutinize and compare ESG performance data on mutual funds and ETFs.

Societal pressure on asset managers on how to allocate assets can be felt indirectly, as investors and organizations often face pressure to financially separate themselves from companies, industries or nations which are anathema to society. For investors, this can manifest as divestment campaigns initiated by activists attempting to draw attention to a cause. While the effectiveness of financial divestment campaigns producing financial strain on the intended target through increases in cost of capital are likely small, if any, they can result in changes in market norms, introduction of restrictive legislation, and assigning of stigma (Ansar, et al. 2013). A well-known campaign beginning in the 1980s is the movement to divestment from tobacco products, initiated by the American Public Health Association, American Cancer Society and World Health Organization and resulting in divestment of tobacco holdings by U.S. public pension funds and increased regulation of the tobacco industry by the FDA. Another example is Apartheid in South Africa, which began with Protestant and Roman Catholic churches divesting \$250 million from banks with ties to South Africa before becoming a global movement (Ansar, et al. 2013). Currently, university endowments across the US are being pushed to divest from fossil fuels by student organizations.

The Role of Socially Responsible Investment Funds and NGOs

Most of the small funds fail one or both criteria for being stewards of the commons. At the very least they do not exhibit significant common ownership within industries. But they perform a critical role in mitigating the free rider problem at the asset management level. This can be illustrated not in theory but by what has happened in practice. Perhaps a little-known fact is that

the recent increase in engagement activity by large asset managers, such as Blackrock and Vanguard, can be, at least partly, credited to the pressure these organizations faced by smaller socially responsible investment funds. For example, Walden Asset Management and the Center for Community Change, along with the City of Seattle Employees' Retirement System and First Affirmative Financial Network, filed a shareholder resolution requesting a review of BlackRock's proxy voting process and record on climate change. Following extensive engagement and constructive dialogue between BlackRock, Walden and several investors, the shareholder resolution was withdrawn. Soon after, BlackRock updated its website to provide insights into the ways it believes climate change creates risks and opportunities for companies. BlackRock also noted that climate risk will be a priority for their engagement with companies and boards throughout 2017 and 2018.

Similarly, pressure was put on Vanguard. However, Vanguard is not publicly listed so SRI funds were not shareholders of Vanguard having access to the management or the proxy. Putting Vanguard's voting practices on the spotlight was important though. In 2016, the influential, in the asset management industry, magazine Barron's run an article titled "Vanguard's Climate-Change Dismissal," where according to proxy-tracking firm Fund Votes, Vanguard didn't vote in favor of a single climate-related shareholder proposal in 2015. At the same time but on another topic, Vanguard was on the spotlight also for its voting practices. The Corporate Reform Coalition, a group of advocacy organizations and investors, launched a campaign urging Vanguard to change their stance on shareholder resolutions related to political spending disclosure. According to a study by the Center for Political Accountability, Vanguard had voted against or abstained from disclosure votes every time they came up in 2015. Since the campaign's launch current and

prospective customers have delivered over 59,000 emails to Vanguard urging the company to amend its proxy voting guidelines to vote in favor of political spending disclosure.⁹

Why Engage? The Answer is in Fund Flows

The above section suggests that the direct financial benefit given current compensation structures are unlikely to sustain engagement practices. Incentives to attract inflows and to avoid outflows are more likely to be important determinants of asset managers' actions as stewards of the commons. Therefore, mechanisms that increase the sensitivity of fund flows to asset managers' actions in relation to environmental and social issues are likely to be important in mitigating the free rider problem at the asset manager level.

CONCERNS ABOUT COLLUSION

Whenever collaboration between companies becomes part of the discussion concerns arise about collusion and anti-competitive behavior. This is rational as cartels can negatively affect social welfare. Therefore, regulators need to be vigilant about such anti-competitive effects. Recently, there is a stream of literature that seeks to connect common ownership to anti-competitive behaviors (Azar, Schmalz, and Tecu, 2016; Azar, Raina, and Schmalz, 2016). There seems to be disagreement about whether the effect is significant or not and that debate appears to be far from being settled (Rock and Rubinfeld, 2017). In any case, given the significant power now concentrated on the hands of few investors the topic requires careful research and rightly is being debated.

How does this affect the theory of change here? The answer is that it does not. This is primarily because for the environmental and social issues discussed here the companies will be

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⁹ See https://www.corpgov.net/2016/01/vanguards-political-disclosure-vote/.

explicit about their collaborations. Therefore, such collaborations will be scrutinized both by the public but perhaps most importantly by the legal experts within and outside companies. In fact, resulting collaborations are likely to increase transparency of current firm operations. Furthermore, this is pre-competitive behavior. Like airlines cooperating by purchasing jets together in order to lower costs collectively, collaborations are mutually beneficial but do not affect the fundamental relationship between competitors. This stands in contrast with the mechanisms for collusion that the literature on common ownership is worried.

LIMITS TO THEORY

It would be naïve to expect that private sector action could be mobilized to provide solutions for all problems that involve common goods. There are limits to the theory and at least two of them are worth highlighting. First, it is unlikely that much progress would be made for problems in industry settings where investors do not own some of the main industry competitors. If that is the case then it would be harder to move a significant part of the industry to collaborate not effectively decreasing the temptation to free-ride.

Second, we are unlikely to see progress in cases where collaboration is unprofitable for the whole industry both in the short term but also in the long-term. Given that index and quasi-index investors hold the stock and they have limited opportunities to move away from an industry, it will be unlikely that they would put pressure on companies to collaborate on long-term value decreasing issues.

A NEW GOVERNANCE PARADIGM

National economics are increasingly connected, with global corporations functioning as the vehicles for flows of good and services around the world. Moreover, an increasing number of

resources are controlled by global companies with a small number of them controlling the vast majority of those resources. The global nature of commercial activity and the challenges of regulating the consequences of it, give rise to a new model of governance whereby non-governmental actors could play a productive role at global governance. Industry governance through industry association codes, multi-stakeholder association efforts (e.g. Fair Trade), or global institutions codes (e.g. OECD Guidelines for Multinationals) are likely to be increasingly important in regulating corporate conduct and as a result competition. These new governance systems are still in flux and as a result unstable and unpredictable. This paper argues that investors have an important role to play in the design of the new governance system.

A first-order question that arises is how can individual preferences be expressed by institutional investors. For example, in the face of conflicting social and political views across individuals, how can an asset manager decide what are the customer preferences for action? A useful framework here could be the Sustainable Development Goals (SDGs). On September 25th of 2015, 193 countries unanimously adopted these goals to end poverty, protect the planet, and ensure prosperity for all. The societal consensus involved in developing the SDGs provides a safe framework for asset managers to operationalize their engagement efforts as these goals have been approved by all nations.

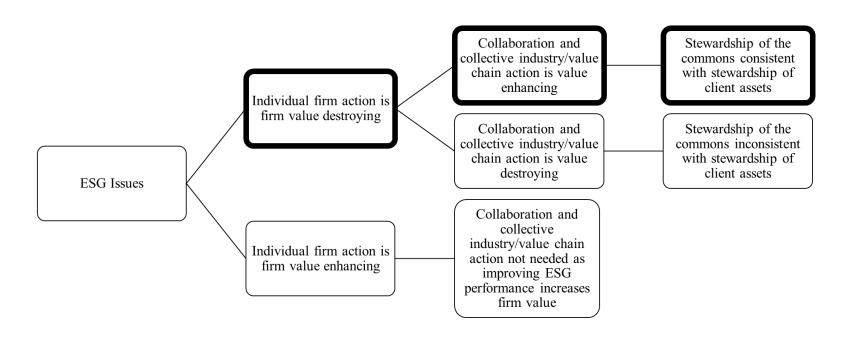
CONCLUSION

This paper represents a first attempt at drawing a theory of social change that encompasses the role of institutional and retail investors. Free riding problems due to market failures give rise to incentives for corporations to impose negative externalities on society or not to improve their positive contribution. Collaboration between companies can mitigate some of these free riding problems and lead to better societal outcomes. Large institutional investors that have long time

horizons and significant common ownership across different companies could serve as important vehicles for the establishment and/or stability of these collaborations. However, free riding problems exist also at the level of large institutional investors giving rise to an important role for smaller activist funds and retail investors in creating incentives for the large institutional investors to develop their engagement practices. While it is unlikely that investors will be able to solve many of the pressing societal problems, progress can be made.

Figure I

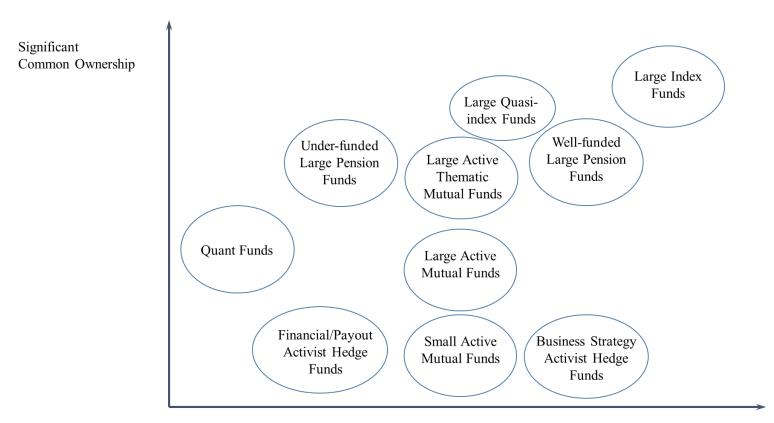
A Taxonomy of the Economics of ESG Issues



Source: Author

Figure II

A Taxonomy of Investor Types as a Function of Significant Common Ownership and Time Horizon

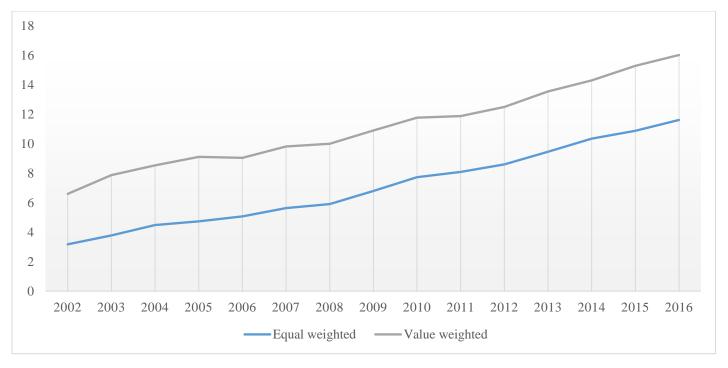


Time Horizon

Source: Author

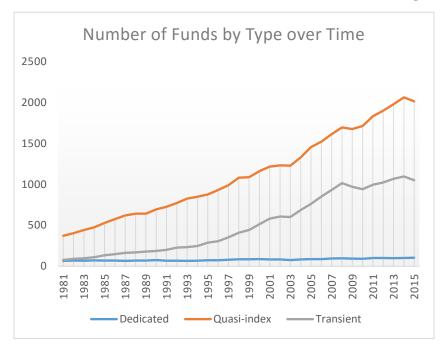
Figure III

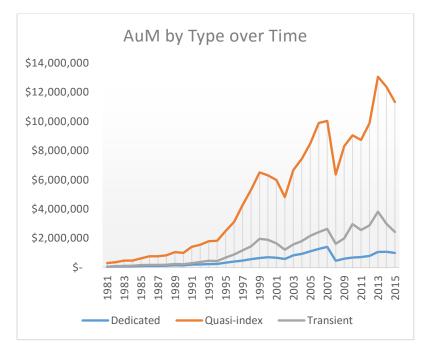
Average % of Shares Held by Large Index Investors



Source: Author calculations based on shares held by institutional investors of stocks traded in US stock exchanges. The chart shows the average percentage of shares held by Blackrock, Vanguard and State Street between 2002 and 2016 for 67,504 firm-year observations. All ownership records are as of the end of the first calendar quarter of each year and provided by FactSet Lionshares.

Figure IV





Source: Author calculations based on data from Brian Bushee's investor classification data and Thomson Reuters data on holdings from 13-F fillings. I use the permanent class classification in assigning managers to investor type. Holdings data are as of 31st of December each year. The scale of the y-ax for AuM is in millions. Dedicated are funds exhibiting low turnover and concentrated portfolios. Quasi-index are funds exhibiting low turnover and broadly diversified portfolios. Transient are funds exhibiting high turnover and broadly diversified portfolios.

Figure V

Examples of ESG Topics across Industries where Large Index Investors Hold Significant Shares

			% of Shares Held by Large Index Funds				
Topic	Industry	Year	Average	Median	1 st Quartile	3 rd Quartile	
Bribery and Corruption	Building Construction General Contractors and Operative Builders	2002	5.6	5.3	4.3	8.2	
		2007	11.8	11.4	8.6	11.7	
		2012	14.4	14.5	14.5	15.9	
		2016	19.7	20.3	20.1	20.3	
Deforestation	Food and Kindred Products	2002	5.8	6.6	1.7	8.3	
		2007	8.0	8.6	1.8	11.8	
		2012	13.5	14.1	13.3	15.9	
		2016	16.5	15.9	15.9	17.4	
Water pollutants and water consumption	Apparel and other Finished Products Made from Fabrics and Similar Materials	2002	5.0	6.7	2.3	7.6	
		2007	8.1	9.0	5.6	10.1	
		2012	10.2	8.9	8.6	12.1	
		2016	13.0	13.3	13.2	13.4	
Materials sourcing and conflict minerals	Electronic and other Electrical Equipment and Components, except Computer Equipment	2002	7.4	8.1	7.1	8.5	
		2007	10.4	10.4	9.2	12.6	
		2012	13.1	13.7	13.5	13.9	
		2016	16.9	17.0	16.7	18.2	
Obesity and Customer Health	Eating and Drinking Places	2002	8.1	9.0	6.9	10.3	
		2007	10.5	10.9	9.5	11.7	
		2012	13.9	14.5	13.0	15.0	
		2016	17.5	18.1	15.6	19.0	
Inclusion, access to affordable products	Educational services	2002	5.0	5.3	4.5	5.3	
		2007	9.1	9.0	8.6	11.0	
		2012	14.4	15.7	13.4	16.5	
		2016	13.2	12.7	12.7	17.7	

Source: Author calculations based on shares held by institutional investors of stocks traded in US stock exchanges . The chart shows the average, median, 1^{st} and 3^{rd} quartile percentage of shares held by Blackrock, Vanguard and State Street between 2002 and 2016 for different companies in an industry.

Figure VI

Examples of ESG Topics across Industries where Large Active Investors with Quasi-index Funds Hold Significant Shares

			% of Shares Held by Large Active Funds					
Topic	Industry	Group	Average	Median	1st Quartile	3 rd Quartile		
Bribery and Corruption	Building Construction General Contractors and Operative	Active 12	16.2	15.9	13.5	18.7		
	Builders	Fidelity	4.5	3.6	3.3	4.2		
Deforestation	Food and Kindred Products	Active 12	15.5	15.2	12.6	15.2		
		Fidelity	1.9	1.6	0.7	2.4		
Water pollutants and water consumption	Apparel and other Finished Products Made from Fabrics	Active 12	14.5	16.6	9.4	19.4		
	and Similar Materials	Fidelity	2.8	1.2	0.0	2.3		
Materials sourcing and conflict minerals	Electronic and other Electrical Equipment and Components,	Active 12	14.7	13.9	12.2	13.9		
	except Computer Equipment	Fidelity	2.7	1.8	0.4	3.2		
Obesity and Customer Health	Eating and Drinking Places	Active 12	16.6	15.3	9.4	19.1		
		Fidelity	4.2	1.8	1.1	6.5		
Inclusion, access to affordable products	Educational services	Active 12	10.7	9.0	4.7	13.6		
		Fidelity	0.4	0.3	0.0	0.6		

Source: Author calculations based on shares held by institutional investors of stocks traded in US stock exchanges provided by FactSet Lionshares. The chart shows the average, median, 1st and 3rd quartile percentage of shares held by the Capital Group, Fidelity, BNY Mellon, J.P. Morgan, Goldman Sachs, Wellington, Northern Trust, TIAA, Deutsche Bank, Invesco, Franklin Templeton, and T. Rowe Price (Active 12) or only Fidelity (the largest of the 12 by AuM) in Q1 2016 for different companies in an industry.

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