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How Portfolios Can Impact the Real Economy

Executive Summary

Many investors seek impact through their financial portfolios. To help clarify how investors can affect the direction of corporate decision making, we analyze the two channels of influence: 1) direct control, typically through exercise of voting rights, and 2) changing the cost of capital through portfolio positioning. There are many ways that stakeholders are engaging with corporates but we argue that there are no other first-order mechanisms for a financial portfolio to have "impact" beyond the two mentioned above. As a real-world example, we apply these insights to the portfolio "net zero" initiative, showing how the typical approach to net zero gradually shifts the focus from the direct exercise of control to the impact on financing costs.

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Introduction

Many allocators, portfolio managers, and consultants express a clear desire for their portfolios to have "impact." At the same time, it can be a struggle to articulate how that may happen. In this discussion, we clarify the distinct issues involved in "investing for impact" to help investors set realistic goals based on what is achievable given the assets at their disposal. We focus on corporate securities, considering how an investment in equity or corporate bonds (whether in primary or secondary markets, cash market securities or derivatives written on them) can potentially affect the issuing firm's behavior.[1]

The word "impact" is often used to describe the influence a portfolio company has on the broader society, environment, etc. While this is centrally important to achieving environmental and social goals, we aim to focus exclusively on what impact investors can reasonably expect to achieve as a direct result of actions related to their portfolio holdings. In principle, there are many possible ways to have impact but only some of them are contingent on owning a corporation's securities. Investors may vote shares, engage corporate management in direct conversations, or even seek outright board representation through a proxy contest. Investors' portfolio decisions have the potential of moving the price and the cost of capital of an issuer, and hence influence which corporate projects get financed.

We acknowledge that these channels are not the only way to have "impact," but other avenues are not predicated on holding a financial portfolio and hence should not be considered in the context of an investor's specific holdings or trading decisions. For example, one may try to influence issuers by engaging in advocacy with the broader public, or even with regulators. Such actions may be powerful drivers of impact and some investors may decide to pursue them, but so can parties who are not investors.

In this context, there are only two channels of influence that can be traced to specific portfolio choices: 1) control, typically through voting rights, and 2) financing costs. The first is the more obvious and more commonly acknowledged. The second is perhaps more often discussed in academic journals (going back at least to Heinkel et al., 2001) than in practitioner literature (e.g., Asness, 2017), but is also widely recognized as important.

More striking than the two channels above is that there is nothing beyond them, at least nothing that would be of first order importance.[2] Commentators often mention nonspecific "impact through engagement," or propose additional impact through, for example, "direct financing in the primary market," but as we explain below, these turn out to be arguments about control or, more often, financing costs.

Exhibit 1 summarizes these mechanisms, acknowledging that impact is a holistic concept but stressing that there are two key, direct economic reasons why an investment portfolio may have impact.

1 We acknowledge that other asset classes, e.g., sovereign securities, have their own nuances and are not amenable to the same analysis.

2 In limited circumstances a financial portfolio may matter for other reasons. For example, corporate bond holders have a say when negotiating with companies in financial distress. We believe this channel of influence is at best of secondary importance to impact-seeking investors.

Exhibit 1: Different ways investors can impact portfolio companies

While "impact" is a holistic concept, the direct impact of an investment portfolio is limited to 1) control and 2) financing costs.

1. Control	2. Financing Costs	3. Not Portfolio-Related
• Voting • Board representation • Direct control (e.g., PE)	• All portfolio decisions that influence the price of issuer's securities • Influencing issuance (e.g., labeled vs. regular bonds)	• Social outreach • Advocacy with stakeholders • Dialogue with regulators • ...
Function of portfolio holdings		No direct link to holdings

For a practical illustration of the concepts illustrated in Exhibit 1, consider a bondholder who asks a company for a specific action that the corporate management prefers not to undertake. Why might the company concede? The investor will not be able to vote against the management, since corporate bonds do not carry a vote. However, a dissatisfied bondholder can sell their bonds and perhaps not participate in future bond issues. Either action affects financing costs. Some might argue that not participating in the primary market is more powerful since it deprives the company of new financing, but this is a somewhat naïve view. Capital markets are competitive and when an investor refuses to participate in an offering, someone else will. The only problem for the issuer is that someone may charge higher interest—meaning the company will face higher financing costs. The issuer confronts the very same problem when an investor refuses to hold existing bonds. That action affects the yield on those bonds and directly affects the yield on any new securities the company may offer.

Similarly, engagement by bondholders may influence the company to adopt certain covenants in newly issued bonds. These outcomes may seem akin to control, but they are more related to financing costs. The issuer may adopt a covenant because it makes financing cheaper, or maybe even possible in the first place (otherwise financing may be prohibitively expensive).

The control and financing costs channels are distinct and cannot be summarized usefully with a single reporting measure—in fact, a given portfolio choice may create the opportunity to have a positive impact through one channel while having a negative impact through the other. For example, a portfolio attempting to impact financing costs of brown companies will divest from or short those companies, whereas a portfolio attempting to generate impact through control will invest heavily in these same companies so as to maximize control over their future business decisions. Investors must decide which of these channels will be more effective given their specific circumstances to determine their optimal impact strategy. In essence, the more investors rely on one channel, the more difficult it may be for them to use the other.

Both channels are relevant for corporate outcomes. Investors readily recognize the potential impact through control and proxy voting in particular, but it is important to acknowledge that financing costs also play a key role in corporate decisions. This can be easily demonstrated by pointing to the rapidly growing issuance of labeled bonds and the

potential for them to generate "greenium," which can create a lower cost of financing green or social investments than the issuer could have secured through its general purpose bonds. Since there are no additional control rights that green bonds bestow, their potential for incremental impact is purely financing cost-related.

Because the two channels capture different economic reasons for impact, we recommend that investors incorporate both in their process, and set specific targets for each channel. Some investors may decide to explicitly separate the management of the two. For example, institutional investors who have the scale and know-how required for generating impact through the control channel may act on it through a committee or dedicated effort that votes all holdings of the institution's overall equity program (and uses appropriate measures to assess impact.) This approach would reflect the institution's aggregate holdings and would also allow for the maximally broad engagement program: after all, institutions such as large pension plans are likely to be a significant holder of most public equities regardless of their positioning in individual mandates. At the same time, while exerting control through internal endeavors, the same institution may prefer that their external managers focus on using portfolio holdings to create impact through financing costs. This approach helps to enable the separation of impact pursuits described above.

Finally, we provide a practical illustration of how our arguments shed light on one of the most important recent ESG developments: the net zero initiative. Net zero pledgers typically focus on portfolio carbon footprint as the main metric of success. We show that while net zero pledgers seek influence through both channels, reliance on this single reporting metric muddles measurement, shifts the actual impact from control to the financing cost channel, and potentially makes fulfilment of the net zero pledge more difficult.

Channels of Influence

There are two channels of influence that can be traced to an investment portfolio: 1) control over corporate decisions and 2) influence over the financing costs (the "cost of capital") impacting project selection.

Control

Of the two channels, the more obvious is the right to directly influence at least some corporate outcomes by voting or otherwise exercising investors' control of the company (for example, an activist investor, or a private equity GP, may place a director on the board). The primary lever for investors is through their right to vote in elections for the Board of Directors. Moreover, investors can sometimes decide through their votes which projects the company may or may not pursue.[3]

Control is specific to equity-type instruments. Corporate bonds, for example, do not give the

3 Presumably, absent agency issues, the firm would take all positive NPV projects and refrain from taking any negative NPV projects even without any shareholder action. Shareholders may influence the firm not to act on some projects that the firm considers positive NPV, or to take on some projects that the firm deems to have negative NPV.

investor any board representation or direct control over the company, other than in the extreme case of bankruptcy restructuring. Furthermore, control is specific to equity positions that have voting rights, which excludes long derivate positions and even cash positions where the shareholder has lent shares or (in some cases) financed them and is not currently the shareholder of record.

Financing Costs

A key role of financial markets is to enable businesses to raise financial capital. Financing costs (also known as the "cost of capital") are market-determined and based on investor preferences and activity. They are inextricably linked to the price of an issuer's securities: the lower the price, the higher the cost of capital. Thus, any and all investor actions that influence prices also influence the issuer's cost of capital and its ability to invest in projects and fund ongoing operations.

Financing costs are an instrument of impact because they are a key input in companies' strategic investment and financing plans. Investors who want to stimulate an economic activity can do so by helping lower its financing cost, which leads to increased investment and higher growth for the portfolio company. Conversely, increasing the financing costs of the firms believed to produce negative externalities prevents them from taking on as many projects—or, at the extreme, from growing at all. This relationship is a clear economic reason why divestment, historically the most popular ESG design choice, may have real-world impact (see Asness, 2017).

The ability to affect financing costs is a powerful tool and the broadest channel of influence that investors have. It is readily apparent in the formation of "greenium," or the difference in yields between otherwise similar labeled and "regular" bonds from the same issuer.[4]

Financing costs depend on trading in both the primary and the secondary market. In the primary market, investors' decision to increase their participation, or to shun a new offering, immediately translate into how costly it is for the issuer to meet its financing needs. Prices in the secondary market are equally important: capital budgeting depends on what the price is today, not on what it was at some past time when the firm issued a new security. Moreover, financing costs help resolve the often-debated question of whether derivative instruments have any impact. They do, because they can influence the current price of a company's securities. This happens because derivative and spot markets are tightly linked in that potential price dislocations between them would lead to arbitrage opportunities. Another often-debated point is selling an existing position versus shorting. When it comes to financing costs, the two are equivalent in that they both may depress the price, and hence increase the cost of capital for the issuer.

This raises the important concept of "symmetry". While short and long equity positions are different in their influence on corporate control (shorts have none), they are equal in their potential impact on cost of capital. Interestingly, the symmetry in the financing cost channel mirrors the investment

4 See, e.g., Larcker and Watts (2020), Baker et al. (2021), Pastor, Stambaugh, and Taylor (2021). Greenium implies that the cost of capital is relatively lower for "green" investments, which may stimulate the firm to undertake more of such projects than it would otherwise.

choices driven by ESG risk concerns. For example, an investor wishing to reduce portfolio exposure to climate-type risks may sell stocks of carbon-heavy companies—as would an investor aiming to increase the cost of capital of such issuers.

Relative Importance of the Two Channels

The two channels are distinct in how they operate, and neither dominates the other. Both affect corporate policies, but it is important to understand that they are not substitutes and are worth considering separately. This insight likely clashes with the intuition of many investors, who may consider control to be the more important of the two channels. There is no theory and no empirical evidence we are aware of to support this view.

The control channel may not be a realistic driver of real change for a range of companies, with perhaps the clearest being firms where the management hold over 50% of the voting stock. It is not to say that votes do not count. Voting by minority shareholders may be an instrument through which other investor preferences are communicated to the board and the management, but this may not be enough for the company to change its corporate policies.

At the same time, if the corporation is forced to pay an exorbitant cost of capital, it may need to curtail investments and operations, regardless of who owns and controls it. For example, respondents to the Q4 2021 Dallas Fed Energy Survey commented that "*Service companies have very little access to new capital, and cash reserves are being exhausted*" or "*Constrained capital will lead to significantly higher commodity prices. And it isn't the administration's fault—this is a Wall Street and environmental, social and governance-led charge.*"[5] Prices can be expected to increase when fewer exploration and production projects are undertaken, which will happen when the cost of capital increases and fewer projects have positive NPV. As we discuss in more detail in Section 3, Goldman Sachs (2020) found evidence of increasing divergence in the cost of capital for different energy projects, which at least in part reflects investors' influence through the financing costs channel.

Luckily, impact does not need to be an "either-or" proposition. We encourage investors to think about both channels to maximize their desired influence on portfolio companies. For example, many equity investors report individual cases where the investor's interactions with the company led to changes in corporate policies. In such cases portfolio companies may respond to engagement because of both the importance of the investor's proxies, but also because of the investor's potential impact on financing costs. The larger the investor's stake, the more important both channels are, and hence the more likely the company is to pay heed.

5 https://www.dallasfed.org/research/surveys/des/2021/2104#tab-comments, accessed on 8/16/2022.

Net Zero Portfolio Pledges

To make our discussion more tangible, we apply our analysis to portfolio net zero pledges. This increasingly important initiative is motivated by investors' desire to help transition the global economy to net zero carbon emissions. As per its second progress report, published in September 2022, the Net-Zero Asset Owner Alliance counts 74 members, collectively accounting for $10.6 trillion in assets under management. To assess the potential and actual impact of these assets, we need to ask how investors' financial portfolios and specific investment decisions can incentivize portfolio companies to decarbonize.

Can Investors Have Impact Aligned with Net Zero Objectives?

First, there is increasing evidence that investors indeed influence climate outcomes through both control and financing cost channels. An example of the former is the recent proxy victory by Engine No. 1 and other investors, who collectively led to an unprecedented change in the composition of Exxon's board of directors. We concede that showing actual realized impact is challenging even in such a seemingly clear-cut case. It may be difficult to identify specific corporate decisions that are board-driven; even if we identify them, it is possible such decisions would have happened anyway, even without changes to the board. Such difficulties notwithstanding, we believe that even a conservative assessment would still allow for some (perhaps unspecified) impact.

An example of impact through financing costs may be a recent analysis by Goldman Sachs (2020), estimating the changes in financing costs for various energy-related businesses. The analysis shows that the difference in the cost of capital for offshore oil and renewable energy has been steadily increasing over the prior few years, growing from about 5-10% in 2010 to above 15% in 2020; over the same period, the cost of capital for natural gas went from below that of renewables to over 5% more expensive. As before, it may be impossible to conclusively show which specific corporate projects were affected and which specific investors led to these changes. But even with this caveat, the evidence suggests that investors can meaningfully affect financing costs. This has a large-scale effect of limiting new investment in (say) offshore oil, in line with the stated goals of net zero investors.[6]

What Channel of Impact Do Net Zero Portfolios Actually Reflect?

While net zero portfolios may indeed have the desired impact, the way this impact arises may be surprising to some investors. This is because, as we have suggested above, the reliance on a single reporting metric such as the carbon footprint (sometimes referred to as "financed emissions" or "owned emissions") confounds the two channels of impact and may lead to counterintuitive outcomes.

6 Some academic studies (e.g., Berk and van Binsbergen, 2021) question whether investors can meaningfully affect financing costs. The industry view suggests that they can. In addition to the aforementioned Goldman Sachs (2020) study, McKinsey (2020) states that "a better ESG score translates to about a 10 percent lower cost of capital"; Institutional Asset Manager (2021) cites analyses that "ESG concerns are rapidly raising the cost of borrowing for oil companies"; Gas Outlook (2022) cites sell side research documenting that "ESG pressure is forcing energy companies to be 'more selective' on spending"; etc.

Carbon footprint depends on two inputs: the ownership of an underlying company, and the emissions of that company. Carbon footprint is higher when the investor owns relatively more of the underlying company (and thus may have more impact on the company's behavior), or when the company emits more carbon (and thus any changes in corporate policies may have a larger effect on global emissions). Historically, carbon footprint was often computed on the fraction of the market cap held in an investment portfolio, reflecting both the fraction of the vote the investor controls and potential impact through the financing cost channel. More recently, investor consensus is shifting toward enterprise value, which in addition reflects the value of debt. Debt does not give the investor a vote but does have potential impact through cost of capital. There is no consensus of whether shorting and derivative positions should be included in the computation of footprint. These instruments are not relevant for the control channel (similarly as debt), but they do matter for the financing cost channel.

The most obvious commonality in net zero pledges is the desire to reduce portfolio carbon footprint (e.g., IIGCC, 2022). This makes a lot of sense when portfolio composition remains unchanged: If we held a fixed stake in an issuer, the only way for our carbon footprint to decrease would be for the portfolio company to decarbonize. Unfortunately, it is unrealistic to expect portfolios to remain unchanged, with or without net zero commitments. And once investors make net zero commitments, it is reasonable to expect that their portfolios will at some point rebalance by divesting from larger emitters of carbon.

This means that while net zero portfolios may become "greener" in terms of their carbon footprint, they may account for a decreasing fraction of global emissions—and thereby exert less control through their ownership stake. Such portfolios still have impact on the larger emitters, but that impact is limited to financing costs. This impact matters: for example, the changes in the cost of capital documented in Goldman Sachs (2020) are likely at least partially due to divestment. But it is worth acknowledging that portfolio carbon reduction targets will gradually shift investors' potential impact from the control channel to the financing costs channel. This point is relevant for both active portfolios and passive indexes that feature portfolio decarbonization objectives, for example Paris-aligned Benchmarks.[7]

Improving Net Zero Reporting

As is clear from our earlier sections, there is no single metric that can usefully summarize both channels of impact. Instead, investors should consider dedicated reporting choices for each channel. If investors choose to focus on only one of the channels, they should opt for a framework designed with that channel in mind.

For example, many commentators such as IIGCC (2022) give clear preference to the control channel. If investors hope to directly influence corporate decisions, they should own voting rights. Thus, to be informative about the potential for this type of impact, the reporting template should include the fraction of the vote controlled by the investor. This typically means the total voting stock the investor

7 Some of these benchmarks explicitly require minimal investment in carbon-heavy industries (see e.g., EU regulation 2020/1818 setting the minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks). This prevents the index from reducing its carbon footprint through simple industry rebalancing away from climate-intense sectors. But even with this feature the indexes will over time force divestment and will give less potential for control-driven impact.

holds, excluding the often-significant number of shares lent or shares financed through mechanisms that give up voting rights (e.g., bilateral repo). Long positions in corporate bonds, short positions in stock, or derivative positions are all irrelevant for this calculation.

This seemingly obvious point is often missed in industry commentary. For example, IIGCC (2022) and other whitepapers recommend reporting metrics that include securities without potential for control, for example corporate bonds (see section 2.4 above) or even long positions in derivative instruments.

Moreover, what matters for net zero goals is control over those issuers who still need to change for the economy to decarbonize. Control over companies that are already net zero aligned may lead to a low carbon footprint, but unfortunately may not help in the ongoing net zero transition for the overall economy (or, if it does, it is through the financing cost of high emitters not currently held in the portfolio). Consequently, investors must decide which objective is most important: a portfolio which reports low emissions or a portfolio which maximizes potential future emission reductions. For a more meaningful measurement, the investor could instead report the fraction of the vote across different sub-groups of portfolio companies, focusing on control for those issuers who emit the most today, and whose potential emissions reductions would be the most valuable for the overall net zero objective. Unfortunately, this is not just outside of prevailing net zero reporting templates, but may actually go against the proclaimed portfolio targets, because increasing control over the issuers that matter the most would typically lead to increases in the portfolio carbon footprint.

Conclusions

The investment community is increasingly focused on the impact of their portfolios, but there is little clarity on why such impact may actually occur. To fill this gap, we show that investment choices affect corporate behavior through one of two channels: first, control (for most investors, through voting proxies), and second, financing costs (cost of capital).

We believe our discussion brings clarity to this important topic, even if some of our insights may be uncomfortable to some investors. For example, it has become popular to say that divestment is ineffective. This view is incorrect: divestment will eventually influence the price and hence the financing cost of the issuer; as we discuss in the "net zero" section, there is evidence that it is already happening. On a similar note, many investors assume that control matters more than financing costs. As we explain, this view is not warranted—in most realistic situations, investors' ability to influence portfolio companies may be as large or even greater through the financing costs channel.

Luckily, there is no need for investors to commit to only one channel of impact. A thoughtful stewardship program will consider both control and financing costs and establish specific objectives for each. Moreover, different investors may implement their objectives differently. For example, investors who lack the scale or the expertise to directly engage with portfolio companies may choose to express their views primarily through the financing cost channel. Conversely, the investors whose comparative advantage is engagement may choose to establish larger equity stakes in the companies producing negative externalities.

This eases financing pressures on such companies but may allow the investor to more efficiently influence them through the control channel. Managing these tradeoffs and balancing both channels will allow investors to maximize the potential impact of their financial portfolios, and thus also the chance of achieving the desired real economy objectives.

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