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How Sustainable investors can impact firm behavior

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TIIVISTELMÄ:

Kestävä sijoittaminen on viime vuosikymmeninä noussut keskeiseksi ilmiöksi rahoitusmarkkinoilla. Kestävällä sijoittamisella tarkoitetaan sijoitustoimintaa, jossa perinteisten taloudellisten tavoitteiden rinnalla huomioidaan ympäristöön, yhteiskuntaan ja hyvään hallintotapaan liittyviä tekijöitä. Ilmiön kasvua ovat vauhdittaneet muun muassa ilmastonmuutos, yhteiskunnallisten odotusten muutos, sääntelyn lisääntyminen sekä sijoittajien kiinnostus sijoitustoiminnan laajempiin vaikutuksiin. Samalla kestävään sijoittamiseen kohdistuu huomattavia odotuksia yritysten käyttäytymisen ohjaajana. Tässä tutkielmassa tarkastellaan, millä tavoin kestävät sijoittajat voivat vaikuttaa yritysten toimintaan ja kuinka vaikuttavia nämä vaikutusmekanismit ovat olemassa olevan tutkimuskirjallisuuden perusteella.

Tutkielman teoreettinen viitekehys rakentuu sijoittajavaikutuksen käsitteen ympärille. Sijoittajavaikutus määritellään muutoksena yrityksen toiminnassa, joka ei olisi toteutunut ilman sijoittajien toimintaa. Analyysia ohjaa erityisesti lisäisyyden käsite, jonka avulla erotetaan sijoittajien aidosti aikaansaamat muutokset sellaisista kehityskuluista, jotka olisivat tapahtuneet muista syistä, kuten sääntelyn, teknologisen kehityksen tai kuluttajakysynnän seurauksena. Viitekehys nojaa moderniin portfolioteoriaan sekä kestävää sijoittamista käsittelevään taloustieteelliseen ja rahoitustieteelliseen kirjallisuuteen, ja sen avulla sijoittajien vaikutusmekanismeja tarkastellaan systemaattisesti.

Tutkielma toteutetaan kirjallisuuskatsauksena, jossa analysoidaan keskeisiä teoreettisia ja empiirisiä tutkimuksia kestävän sijoittamisen vaikutuksista. Kirjallisuuden perusteella sijoittajien vaikutus yrityksiin jäsennetään kolmeen päämekanismiin: pääoman allokaatioon, omistajaohjaukseen ja epäsuoraan eli systeemiseen vaikutukseen. Pääoman allokaatioon ja divestointiin perustuvat strategiat voivat teoriassa vaikuttaa yritysten rahoituskustannuksiin ja kannustaa kestävämpään toimintaan, mutta empiirinen näyttö viittaa siihen, että vaikutukset jäävät usein rajallisiksi erityisesti likvideillä rahoitusmarkkinoilla. Omistajaohjaus, kuten äänestäminen ja vuoropuhelu yritysjohdon kanssa, osoittautuu tutkimuskirjallisuuden perusteella vaikuttavammaksi keinoksi muuttaa yritysten toimintaa, etenkin silloin kun sijoittajat toimivat koordinoidusti. Epäsuora systeeminen vaikutus ilmenee muun muassa raportointikäytäntöjen, markkinanormien ja institutionaalisten rakenteiden kehittymisen kautta, vaikka sen kausaalinen todentaminen on haastavaa.

Tutkielman johtopäätöksenä todetaan, että kestävä sijoittaminen voi vaikuttaa yritysten käyttäytymiseen, mutta vaikutus ei ole automaattinen eikä perustu yksittäiseen mekanismiin. Vaikuttavuus edellyttää aktiivista omistajuutta, sijoittajien välistä yhteistyötä sekä institutionaalista ympäristöä, joka tukee kestävien käytäntöjen yleistymistä.

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1 Introduction

The current public and policy discourse expects that sustainable investing (SI) sometimes also known as socially responsible investment (SRI), defined as a form of investing that incorporates environmental, social and governance (ESG) criteria into investment decisions to help in advancing broader societal goals. The origins of SI can be traced back to 18th century religious movements, that refused to buy sin stocks based on their values and over time this expanded into anti-slavery, anti-war and anti-apartheid movements (Molthan, 2003). Sustainable investing is now more relevant than ever, as large number of investors are motivated by altruistic motives in addition to financial ones, expecting that SRI is tool that enables them to have a positive societal impact (Hartzmark & Sussman, 2019). Many finance products have been created by asset managers and banks to cater to this segment of investors by offering investment products that focus on sustainability, responsibility and impact and they have been growing globally in market share (GSIA, 2022). SRI is being considered by policymakers alike as a potential way to reduce climate change through affordable capital (IPCC, 2022) (IEA, 2021) and as a way of achieving the United nations' sustainable development goals (Betti et al. 2018).

With the high expectations for SI, it is important to analyze how successful investors are in having an impact and through which methods. This paper will use a definition for investor impact from academic literature, defined as ''the change that investor activities achieve in company impact, and company impact as the change that company activities achieve in social and environmental parameters'' (Kölbel et al. 2018, s. 2). Investors being impactful through SI means that the intervention done by investors leads to a change in firm behavior that would not have happened without the intervention. Defining investor impact in this way leads to it not counting changes that would have occurred without the intervention.

After defining investor impact, it becomes relevant analyzing how investor actions can have an impact on firm behavior. Investing in a firm does not provide the investor direct control in changing firm behavior, but firm behavior does change over time. It is important to look at the different mechanisms and strategies through which investors can try and trigger change or accelerate change in firms' behavior towards a societally desirable direction. This thesis examines how different sustainable investing strategies influence corporate behavior by analyzing the mechanisms through which investors can affect firms and evaluating the empirical evidence on the magnitude of these effects. The main strategies examined are capital-allocation approaches, shareholder engagement, and systemic forms of investor influence.

These results are useful for sustainable investors seeking to allocate their resources toward the strategies with the greatest potential impact. hey also help policymakers design climate and sustainability policies that more effectively channel investment toward interventions with proven influence. finally having research-based backing for sustainable investing impact can hopefully incentive more people to participate in sustainability motivated investment.

2 Socially responsible investors

Investors are forced to decide on their priorities when making investment decisions. Screening suitable firms for investment requires investors to first consider the riskiness of a potential investment, the potential future returns, the rate of risk-free returns, the risk tolerance and investment horizon of the investor (Bodie et al. 2014). Investors commonly select multiple different assets into their bundle of investments forming a portfolio. By choosing multiple assets into their portfolio with differing risk profiles, investors can diversify some of the risk away from their portfolio while maintaining the desired level of returns.

In modern portfolio theory, first formalized by Markowitz (1952), if investors select assets effectively, the resulting portfolio should lie on the efficient frontier, where the expected returns of the assets and the riskiness of the portfolio represent an optimal trade-off. This means the portfolio is one of the solutions that minimizes risk for a given target return. In a perfect market, assets should be priced according to their contribution to the tangent portfolio, which maximizes expected returns while accounting for investor risk tolerance and other investment objectives. Under this framework, every investable asset should be priced in such a way that it provides some utility within a tangent portfolio for an investor with suitable preferences.

Although often used interchangeably, sustainable investing and impact investing describe distinct approaches to incorporating non-financial criteria into investment decisions. Sustainable investing integrates ESG considerations primarily to manage risk, align portfolios with investor values, or improve long-term performance. Impact investing, by contrast, explicitly aims to generate measurable and causal social or environmental outcomes alongside financial returns. While sustainable investing may influence firms indirectly through market prices, financing costs, or governance channels, impact investing requires clear evidence that deployed capital produces real-world change. This distinction is essential for understanding the differing motivations and expected outcomes of socially responsible investors.

2.1 Investor preferences and Basics of sustainable investing

Investor preferences play a significant role in determining portfolio composition and, by extension, asset valuation. Within the framework of modern portfolio theory, every asset has a theoretical position within an optimal portfolio, allowing investors to select from a broad set of investment opportunities without necessarily deviating from the risk-adjusted return profile implied by the optimal market portfolio (Bodie et al. 2014). When investors choose assets according to their preferences, whether these relate to risk, return, ethical considerations, or other non-financial criteria, such preferences can influence the relative demand for preferred and non-preferred assets. Over time, systematic differences in investor demand are reflected in asset prices, thereby affecting the valuation and cost of capital associated with different types of investment opportunities. Consequently, if investors consistently signal a preference for business models or corporate behaviors, market mechanisms imply that firms and new investment opportunities will increasingly align with those preferences, leading to a gradual shift in the composition of available investments.

Sustainable investing, also known by the acronym SI, is a form of investment that incorporates environmental and social factors into choices of investment (Edmans et al. 2024). Oftentimes sustainable investors use ESG metrics to inform their investment decision making (Edmans et al. 2024). Sustainable investors have altruistic goals when investment decisions in addition to returns (Kölbel et al. 2018). SI investors want to encourage the type of change they desire in the world through their investment actions. SI investors want to encourage firm behavior that provides a social good in addition to the financial rewards of the investment. Practitioners of SI have the ultimate purpose of advancing societal goals but have variety of mechanisms to pursue it. The three main mechanisms to pursue change are Engagement, Capital allocation and indirect impacts (Kölbel et al. 2018).

Sustainable investment has massively increased in popularity over the last 20 years. According to survey data Morgan Stanley wealth management, 77% of all investors globally are interested in investing in companies or funds that consider social good and/or environmental effects of their investment if they can simultaneously achieve market rate returns for their investment. Simultaneously 54% of the population in the survey data estimated that they will increase the amount invested into socially responsible firms or funds. (Morgan Stanley, 2024).

In the Morgan Stanley survey data, investors were asked about their top priority when making socially responsible investments. 15% of the participants reported that climate change was their top priority, 13% said healthcare, 11% said water solutions, another 11% quoted circular economy. Other high priorities were education, nature and biodiversity, financial inclusion and community development (Morgan Stanley, 2024). The data reveals that socially conscious investors do not have a uniform list of priorities that the whole group prefers to focus on. Instead within the socially responsible investor community investors may decide to focus on specific issues that they find important over others. Key takeaway from socially responsible investors, is that over 80% believe it is possible to achieve gains in environmental and social factors, while having market rate returns, meaning that individuals do not necessarily have to accept lower returns to do social good while investing(Morgan Stanley, 2024).

2.2 Mechanisms and trade-offs in sustainable investing

Sustainable investing requires balancing traditional financial objectives with the pursuit of social and environmental outcomes. Investors typically seek to maximise utility derived from risk-adjusted returns, yet many also aim to influence corporate behaviour or avoid firms whose activities conflict with their values. Achieving both objectives simultaneously depends on the mechanisms through which investors can exert influence and on the willingness of investors to accept potential financial trade-offs.

Sustainable investing influences corporate responsibility through three primary impact strategies: portfolio screening, shareholder engagement, and field building (Marti et al. 2024). Traditional investors often rely on portfolio screening, where capital is reallocated from unsustainable businesses to more responsible ones (Marti et al. 2024). Shareholder engagement allows direct interaction with corporate leadership to push for environmental and social commitments. Meanwhile, field building shapes industry norms and market regulations by influencing stakeholders beyond individual companies. Impact strategies incorporate different mechanisms that affect change, and these mechanisms can be categorized into three primary impact types based on the method used: direct impact on companies, indirect impact on companies via other shareholders, and indirect impact via the institutional context (Marti et al. 2024).

The reality of balancing returns with SE goals is more nuanced in literature. A study conducted on 509 equity and portfolio managers for both traditional and sustainable funds found that financial considerations were the number one factor in all investment decisions (Edmans et al. 2024). Very few were willing to sacrifice any financial performance in return for ES performance, because of fiduciary duty concerns (Edmans et al. 2024). As a result, voting and engagement decisions made by the funds were generally based purely on financial performance over SE, even if large benefits were to be had (Edmans et al. 2024). In addition, 72% of all respondents indicated that external constraints to their behavior, such as firm policies, client wishes or concerns over funds sustainability ratings caused them to make stock selections, voting, or engagement requests that they would not have otherwise done (Edmans et al. 2024). Some of these decisions had a tangible financial impact, for example, by forgoing stocks that could have offered higher returns or better diversification, alternatively other actions harmed ES performance by avoiding stocks whose ES performance the fund could reasonably improve (Edmans et al. 2024).

Balancing returns with social and environmental goals therefore requires navigating both financial incentives and institutional pressures. Investors can influence corporate outcomes through capital allocation, engagement, and exclusion, but their willingness and ability to use these mechanisms is shaped by fiduciary obligations, client expectations, and the limits of acceptable risk. These tensions help explain why sustainable investing often produces modest behavioral effects in practice and why investor coordination is needed for impact to be meaningful.

2.3 Investor sophistication and tools

SI investors have varying levels of sophistication and resources to analyze potential investments. Professional investors and asset managers have significant advantages in subject matter expertise, market knowledge and in tools to analyze and gather available data (Kacperczyk et al. 2014). They are more likely to have the ability to assess the credibility, financial potential and impact of potential SI investments independently (Kacperczyk et al. 2014). Retail investors need more help from external sources to assess firm level SE performance and the credibility of their plans (Kacperczyk et al. 2014). There was a need for trackable metrics that help assess the situation over time. Multitude of solutions have been developed for retail investors with SI goals to have simplified options (Landi et al. 2024). One of the common solutions is exchange traded funds (ETFs) that have professional asset managers who manage collective assets with an additional goal for SI (Landi et al. 2024). SI investors also can use public assessments such as ESG, which integrates firm SE performance into the score with governance (Landi et al. 2024).

2.4 ESG metrics and ratings

ESG, which stands for Environmental, social and governance is a framework tool for investors, stakeholders and companies to evaluate their performance in metrics not related to financial performance (Pollman, 2022). It measures how well a company does on a number on non-financial metrics that promote wider social good (Pollman, 2022). The name ESG was first publicly used in an UN report after an initiative in 2004 between it and 55 leading financial institutions called ‘’Who Cares Wins’’ and it produced a report that started using the new term ESG (Pollman, 2022). The report made recommendations for different actors on how to better integrate environmental, social and corporate governance issues into the financial sector decision making. ESG criteria are a key part of sustainable investment, as they provide non-financial metrics to evaluate investments on (Kölbel et al. 2018).

Environmental concerns, the E in ESG examines environmental metrics of a business and its activities (Pollman, 2022). It measures multiple metrics from greenhouse gas emissions, energy efficiency of operations, natural resource conservation to environmental pollution, biodiversity, water risk and others. Focus of ESG movement in the last few years has been on E as in environmental concerns and more specifically climate change, that can be neatly categorized under ESG because of the very broad definitions (Pollman, 2022). Long term challenges with climate change have made environmental portion of ESG a particular focus of sustainable investment.

The S in ESG stands for social considerations (Pollman, 2022). Social considerations analyze how well a firm performs on human rights, worker treatment, how well they promote diversity and inclusion in the workplace, quality and safety of their products and involvement in larger communities. Social considerations depend on the market they are applied to (Lozano & Martínez-Ferrero, 2022). In developing markets, issues such as firms' treatment of their employees, fair wages for the work, safe working conditions prevention of child and forced labor in the value chain have a heightened role (Lozano & Martínez-Ferrero, 2022). In developed markets other social considerations for equity, inclusion and fairness take a relatively more prominent role (Lozano & Martínez-Ferrero 2022).

G in ESG stands for governance (Pollman, 2022). Governance metrics attempt to track how accountable a firm is, transparency of the firm's decision-making process and to evaluate decisions made on their long term based on long term shareholder value (Lozano & Martínez-Ferrero, 2022). There are three main considerations for governance. Firstly, how a firm board is structured and its ability to make independent decisions (Fabisik, 2025). A strong independent board can better represent the interest of the

shareholders within a firm and provide management guidance through their expertise. The second consideration is executive compensation. Executive compensation ideally should be tied to providing long-term shareholder value and to achieving company social and environmental targets. Thirdly the last large consideration is decision making transparency and shareholder rights. A firm providing open and timely information allows shareholders to better participate in decision making and allows shareholders to express their views. ESG rating agencies governance ratings are likely to have large measurement errors, as governance ratings have no correlation with a variety of financial performance metrics that would be expected to improve with better governance (Fabisik, 2025).
ESG ratings are given by rating agencies that evaluate the performance of firms through sifting massive amounts of data (Lacker et al. 2022). Firms voluntarily disclose the data required by rating agencies to evaluate their performance. Basic data consists of firms' sustainability reports and other regulatory filings. In practice firms adhere to one or multiple sustainability reporting frameworks, such as the global reporting initiative (GRI) or Sustainability accounting standards board (SASB), which have standardized the reporting requirements between different firms and sectors (Amel-Zadeh & Serafeim, 2018). Using a standardized framework reduces some of the variance in ratings caused by different data reporting standards (Amel-Zadeh & Serafeim, 2018).

To create an ESG rating, rating agencies analyze a firm's performance on a variety of metrics related to the firm's performance on minimizing environmental impact, sustainability of the business and governance within the firm towards employees and other stakeholders (Benuzzi et al. 2023). Each rating agency uses a proprietary list of criteria, for which they give out a score for the assessment. Rating agencies then use a proprietary weighting system for each assessment category to create a weighted average score that should reflect the firm's performance in being socially responsible business (Benuzzi et al. 2023). Higher scores should then reflect that a business does a better job on average in taking care of these concerns than another firm with a lower score. ESG scores do not have the same weightings across business sectors (Benuzzi et al. 2023). A company involved in mining or other natural resource extraction has a higher weighting on the environmental preservation and sustainability parts of the rating compared to an insurance company, which means ratings are not accurately comparable between sectors.

Large issue with ESG ratings is that growing demand for them has been larger than the ability of providers to supply the depth, detail and accurate data required (Lacker et al. 2022). It has caused ESG ratings quality and accuracy to not be as good as hoped. Part of the issue with making accurate ESG ratings is the broad categorization of ESG, that makes a massive number of factors included in the ratings (Lacker et al. 2022). Additionally, the difficulty in measuring ESG factors accurately and then evaluating the impact of those factors (Lacker et al. 2022). Several factors also hinder ESG integration into investment decisions, because of the lack of comparability between firms, lack of standards, cost of data acquisition and lack of quantifiable information on many ESG metrics (Amel-Zadeh & Serafeim, 2018).

Sustainable investors apply the ESG criteria to evaluate available investment opportunities. Having access to a tool that can simplify firms' performance metrics in variety of categories into a simple is valuable tool. ESG metrics are a useful tool in displaying the non-financial risk factors for a business, or for sustainable investors to detect factors that they could improve through investment (Lacker et al. 2022). ESG metrics do have an issue in being used in analysis as the dependent variable, as the measurement errors in ratings can hide the beneficial effects or treatment, such as sustainable investment. Very few studies have been conducted with treating ESG as the dependent variable in the study (Kölbel et al. 2018). Despite the weaknesses in ESG, ESG criteria are at the core of sustainable investment, as the metric on which societal improvements are to be evaluated on.

3 Portfolio Screening

Portfolio screening is the act of applying rules based on pre-determined criteria, that choose whether if an investment is allowed into the portfolio. The paper on the impact of sustainable investing a multidisciplinary review by Marti et al. (2024) identified four different mechanisms through which portfolio screening could impact corporate sustainability. The four mechanisms they found could be then further categorized into the three types of impact. Two of the four mechanisms occur through direct impact on companies. They explain how portfolio screening can impact the environment and society. The studies examining these two mechanisms assume that demand for stocks is not perfectly elastic in the real world.

Subsidizing sustainable companies is the first mechanism to directly affect firm behavior. In the study sustainable investing in equilibrium, Pástor et al. (2021) assume that sustainable investors would be willing to accept lower rates of return for holding shares of companies they consider sustainable. Leading to sustainable firms having a lower cost of capital and subsidizing their new activities that they might not otherwise have been able to engage in (Pastor et al. 2021). The degree of subsidization depends on whether sustainability focused behavior is cost neutral or money losing. If sustainability activities are purely money losing, investors would need to accept the loss and therefore be willing to subsidize the expensive engagement in them, which would not happen otherwise in an open market. In a situation where sustainable activities are cost-neutral, if sustainable investors accept lower rate of returns, they enable the firm to start new projects cheaper compared to their non sustainable counterparts, leading to them expanding their market share at the cost of their shareholders (Pastor et al. 2021).

There is empirical evidence of this impact mechanism working from the South African investment boycott. Nelson Mandela calling for the end of the boycott led to institutional ownership of the targeted firms rising, along with the stock prices (Kumar et al. 2002). It would suggest that capital costs for these firms would be lower as they would be seen as sustainable again by investors.

The second impact mechanism, incentivizing non-sustainable companies, directly impacts firms through market dynamics that encourage firms to adopt more sustainable practices (Marti et al. 2024). When shareholder demand for sustainability exceeds the supply of companies with such practices, the heightened demand temporarily inflates the share prices of sustainable companies. This financial advantage motivates non-sustainable firms to improve their sustainability efforts to capitalize on higher market valuations (Zerbib, 2022). Research suggests that sustainable shareholders must control at roughly 25% of all stock to effectively drive this shift (Heinkel et al., 2001). Empirical evidence supports this mechanism, as research on mutual funds that aggressively decarbonize their portfolios by divesting from high-carbon-emitting companies has been shown to cause stock prices of these firms to decline when these trades happen, prompting them to reduce emissions (Rohleder et al., 2022). Additionally, companies with a significant base of sustainable shareholders tend to improve their environmental and social policies even in response to minor divestments, fearing further financial repercussions if they fail to act (Gantchev et al., 2022).

Portfolio screening can generate indirect impact via other shareholders by creating anomalies that don’t follow conventional investment expectations (Marti et al. 2024). When sustainable investors collectively mobilize capital, they can sustain a high share price for a company they deem sustainable, even if the company is losing money (Marti & Gond 2018). This phenomenon represents an observable event that defies widely accepted norms about how companies should be funded and valued. As a result, other shareholders may perceive this as an anomaly that disrupts their traditional valuation models, prompting them to reconsider their investment strategies in hopes of returns with other firms engaging in similar sustainability behavior (Marti & Gond 2018).

Fourth mechanism identified in the literature through which sustainable investment exerts indirect influence is via the institutional context, particularly through capital allocation practices that challenge entrenched corporate assumptions regarding sustainability (Marti et al., 2024). The presence and relative scale of green investment funds within a given country can shape corporate social and environmental behavior by altering the normative and cultural expectations placed on firms. (Yan et al. 2021) argues that firm managers often perceive such funds as cultural anomalies—early indicators of broader shifts within the financial sector. As the prevalence of sustainable investment grows, its impact extends beyond individual investors, contributing to changes in the institutional environment in which firms operate. This evolving context can prompt a reassessment of corporate sustainability practices. Drawing on data from 3,706 companies across 20 countries, (Yan et al. 2021) demonstrate that the existence of sustainable investing within a firm's national context can influence managerial attitudes, potentially reducing the skepticism or unfavorable assumptions traditionally associated with environmental policies.

4 Divestment

Divestment is one of the most widely discussed strategies in sustainable investing. It refers to the deliberate withdrawal of capital from firms or sectors that investors view as socially or environmentally harmful. Historically, divestment campaigns have targeted industries such as tobacco, alcohol, gambling, weapons, and, more recently, fossil fuels. The underlying expectation is that, by refusing to finance these firms, investors can pressure them into reform and reduce their negative externalities.

Although divestment exists in many forms, the central idea is that withholding capital can influence corporate behavior by raising a firm's financing costs or altering the composition of its shareholder base. Firms that face higher capital costs may respond by reducing harmful activities or improving their sustainability practices to regain investor support. The extent to which this mechanism functions, however, depends heavily on market conditions, the availability of alternative financing sources, and the degree of investor coordination.

A significant portion of divestment originates not from financial considerations but from values-based preferences. Investors may exclude certain business models if these are perceived to conflict with their personal ethical beliefs, social objectives, or worldview. Historically, one of the clearest examples of this is the exclusion of sin industries—sectors considered morally or socially objectionable due to the nature of their products. These include tobacco, alcohol, gambling, and in some definitions, weapons manufacturing. Many investors view the end products of these industries as harmful or socially detrimental and therefore prefer not to be associated with them or derive financial benefit from their operation.

Empirical research indicates that such exclusionary preferences can have pricing implications. Hong & Kacperczyk (2009) found that sin-industry stocks earn higher expected returns because many investors avoid them for non-financial reasons. This "sin premium" arises because reduced demand lowers the stocks' prices, requiring a higher return to compensate remaining investors. While this does not necessarily change firm behavior, it demonstrates that widespread avoidance can materially influence financial markets even without coordinated action.

Interestingly, sustainable investing, particularly when practiced through ESG frameworks, does not systematically penalize sin industries. Several studies, including Du & Sun (2023), show that sin-industry firms often achieve above-average ESG scores because they perform well on governance and internal management metrics, even if the nature of their products remains ethically controversial. This highlights two important themes in divestment. First, ESG-based investing is conceptually distinct from ethics-based investing; ESG ratings primarily assess operational risk and not moral acceptability. Second, exclusions and divestment inherently create portfolio trade-offs: avoiding entire industries may reduce diversification or eliminate exposure to high-return sectors. These considerations illustrate the complex motivations underpinning divestment and the tension between ethical preferences and financial objectives.

4.1 Mechanisms of divestment

Divestment may affect firms primarily through two financial channels: changes in the cost of capital and effects on price and liquidity. Both channels arise because divestment reduces the set of investors willing to hold excluded firms' securities. If investor demand falls sufficiently, firms may experience higher financing costs or lower valuations. The strength of these mechanisms depends on the scale of divestment, how substitutable excluded firms are within investor portfolios, and the extent to which firms rely on external financing.

The first mechanism concerns the cost of capital. The classic model of Heinkel et al. (2001) shows that when a subset of investors excludes "brown" firms, these firms must offer higher expected returns to attract the remaining investors, raising their cost of equity.

Berk & van Binsbergen (2025) extend this framework by quantifying how divestment induces persistent differences in discount rates between clean and dirty firms. They show that the impact depends on three parameters: the proportion of excluded firms in the market, the market share of sustainability-oriented investors, and the degree of substitutability between clean and dirty assets. Their results indicate that unless sustainable investors control a substantial share of total market wealth, divestment increases the cost of capital by only a few basis points, far too small to materially influence corporate investment decisions.

A second mechanism operates through price and liquidity effects. When investors reduce or eliminate holdings of particular firms, the demand for those firms' shares narrows, potentially lowering valuations and decreasing liquidity. Lower prices raise expected returns for remaining investors, reinforcing the cost-of-capital channel. Reduced liquidity can also increase trading costs and volatility, which may affect firms when issuing new equity. Evidence from exclusionary settings supports this mechanism: Amihud & Mendelson (1986) show that securities with smaller investor clienteles exhibit persistent liquidity premia, while Hong & Kacperczyk (2009) document reduced liquidity among "sin" stocks avoided by norm-constrained institutions. More recent work by Riedl & Smeets (2017) finds that values-driven investors systematically avoid certain firms, and that the excluded firms display lower turnover and weaker liquidity metrics. Together, these findings suggest that divestment can impair liquidity even when price effects are modest, and that such liquidity frictions may become more pronounced when participation is broad or coordinated.

In highly liquid markets, however, the influence of these mechanisms is limited. Unconstrained investors often step in to purchase excluded stocks at slightly discounted prices, offsetting much of the pressure generated by divesting investors. This means that only when divestment is coordinated, simultaneous, or concentrated within specific market segments do price and liquidity effects become more pronounced. Even then, empirical evidence shows that these effects remain small in absolute terms, suggesting that divestment through financial channels alone is rarely sufficient to induce large behavioral changes in firms.

4.2 Evidence and limitations of divestment

Empirical studies provide a nuanced picture of divestment's effectiveness. While the theoretical mechanisms outline how divestment could raise financing costs or affect share prices, real-world evidence suggests that these effects tend to be modest. A central reason is that the extent of divestment in practice often falls well short of the scale required to generate meaningful financial pressure. This is particularly evident in highly liquid markets with diverse investor bases, where moderate levels of divestment have limited influence on prices or liquidity, as unconstrained investors readily purchase excluded securities at discounted levels. Evidence from fossil-fuel and tobacco divestment campaigns reflects this dynamic. Dimson et al. (2015) document that coordinated tobacco exclusions contributed to modest but persistent valuation discounts, while Ansar et al. (2013) find that fossil-fuel divestment can reduce investor demand enough to create small, observable price effects in concentrated market segments. Even in these cases, however, price adjustments remain small in absolute terms, indicating that divestment produces limited financial pressure unless participation is broad and simultaneous.

The theoretical conditions required for stronger effects are clarified by Heinkel et al. (2001), who show that excluded firms face meaningfully higher capital costs only when more than 20 percent of the market divests. Their model predicts that under such conditions, firms may undertake sustainability reforms to regain access to a wider investor base. However, more recent equilibrium models provide additional insight into why such thresholds are rarely met. Berk & van Binsbergen (2025) show that the cost-of-capital impact of divestment depends on three factors: the fraction of firms being excluded, the market share of sustainability-oriented investors, and the degree of substitutability between clean and dirty firms. When realistic market parameters are used, such as excluded firms representing a quarter of total market capitalisation and sustainable investors representing less than a third of total wealth, the predicted cost-of-capital increase is only a few basis points. Their findings align closely with empirical evidence showing modest pricing effects in coordinated campaigns (Dimson et al., 2015; Ansar et al., 2013). Together, these studies indicate that, while divestment can alter expected returns in theory, the magnitude of these changes is typically too small to materially affect corporate investment decisions.

Sector-specific evidence reinforces this conclusion. Hong & Kacperczyk (2009) find that sin stocks earn higher expected returns because many investors avoid them, yet these firms continue to operate profitably and do not exhibit systematic behavioural changes attributable to divestment. This suggests that while exclusion may affect pricing, it rarely influences firm strategy. Historical analysis of the anti-apartheid divestment campaign leads to a similar conclusion. Teoh et al. (2003) find no significant long-term impact on the stock prices of targeted firms, as divested shares were quickly purchased by investors unconcerned with social or political issues. These findings echo the argument made by Berk & van Binsbergen (2025): unless a large share of total capital shifts preferences simultaneously, market forces will absorb exclusionary flows with minimal consequence for firm behaviour.

Research on demand shocks provides additional context. Beneish & Whaley (1996) show that large, coordinated inflows or outflows, such as those triggered when firms enter or exit major indices, can meaningfully move prices even without fundamental changes. The relatively weak price effects observed in divestment campaigns highlight the difficulty of achieving the level of coordination required to replicate these index-related shocks. In most cases, divestment campaigns involve fragmented or gradual capital reallocation, far smaller in scale than index rebalancing.

Recent work also raises concerns that divestment may unintentionally hinder environmental progress. Hartzmark & Shue (2022) argue that brown firms often have the greatest potential to reduce emissions when supplied with affordable capital. Increasing their cost of capital through divestment may reduce their ability or incentive to invest in long-term transition technologies, potentially worsening environmental performance. This perspective complements the insights of Berk & van Binsbergen (2025): if divestment-induced increases in financing costs are small for most firms, they will not meaningfully alter behaviour; and if they manage to become large for highly polluting firms, they may do so in a way that undermines their ability to transition.

Review of the literature indicates that while divestment can affect prices and liquidity at the margin and may exert political or reputational pressure, its ability to change firm behaviour through financial channels is limited. Both theoretical and empirical research show that meaningful capital-cost effects require a level of investor coordination rarely seen in practice. Moreover, excluded firms often find abundant financing from unconstrained investors. As a result, divestment is best understood as a symbolic or political tool that can complement regulatory, engagement, or policy-based interventions, rather than as a standalone mechanism for driving substantial corporate change.

5 Shareholder engagement

Engagement is a cornerstone of sustainable investing, allowing investors to influence corporate behavior from within rather than solely signaling disapproval externally through divestment. By purchasing shares, investors acquire ownership rights, which grant them the ability to vote on corporate decisions, propose initiatives, and communicate directly with management teams. This active participation enables investors to encourage companies to adopt more sustainable practices, improve disclosure, and align strategies with environmental, social, and governance (ESG) objectives (Broccardo et al. 2022). Unlike divestment, engagement requires ongoing interaction with firms, consistent monitoring, and strategic planning, often facilitated through pooled investment vehicles such as mutual funds. These funds bring together investors with aligned sustainability goals, providing the scale and expertise necessary to propose actionable initiatives and increase the likelihood of meaningful change (Dimson et al. 2025).

Empirical research demonstrates that engagement can influence corporate performance on ESG metrics while also enhancing long-term financial outcomes. Barko et al. (2022) find that active engagement by institutional investors leads to improvements in ESG performance among targeted firms, highlighting engagement as an effective channel for influencing corporate behavior. Dyck et al. (2019) similarly show that institutional investors play an important role in advancing corporate social responsibility, particularly when they bring stronger governance standards and greater monitoring capacity. Clark et al. (2015) provides a broader perspective linking stronger ESG performance often supported by engagement initiatives to superior long-term financial outcomes. Their findings show that companies with higher ESG scores, which are often achieved through engagement initiatives, tend to exhibit superior long-term risk-adjusted returns, lower downside volatility, and improved resilience to environmental, social, and regulatory shocks.

Engagement can also directly shape firm behavior, particularly in areas such as governance, strategic planning, and sustainability disclosure. Studies cited in the engagement literature highlight that proactive investor dialogue can encourage firms to strengthen ESG reporting, develop sustainability strategies, and enhance board oversight. These changes support long-term value creation by aligning corporate practices with broader stakeholder expectations. Dimson et al., (2025) further emphasizes the importance of coordination among investors, showing that collaborative engagement efforts significantly increase the likelihood of achieving meaningful outcomes. This coordination is especially valuable in settings with dispersed ownership or entrenched management, where individual investors may otherwise have limited influence.

5.1 Voting Behavior and Social Preferences

Investor voting behavior represents a critical mechanism through which engagement can influence corporate outcomes. Broccardo et al. (2022) develop a model illustrating how investors balance financial returns against environmental or social outcomes, showing that even relatively small social preferences can lead to the selection of socially optimal options when the environmental cost exceeds the financial benefit. When a significant proportion of investors have positive social preferences, ESG-positive outcomes are more likely to be chosen, while in the absence of such preferences, financially optimal outcomes dominate. This demonstrates that engagement's effectiveness depends not only on the actions of individual investors but also on the broader distribution of preferences within the shareholder base (Broccardo et al., 2022; Dyck et al., 2019).

Large institutional investors, such as pension funds, often navigate a balance between fiduciary duties and social considerations. Dyck et al. (2019) highlights that even small social preferences can shift outcomes when financial differences between options are minimal or uncertain. Furthermore, coordinated engagement across multiple investors enhances the likelihood of ESG-positive outcomes, reinforcing the role of coalition-building in effective engagement. These dynamics indicate that shareholder influence is not solely a function of voting power but also of strategic alignment, preference distribution, and collective action. By leveraging these mechanisms, engagement can affect firm behavior in ways that align with both social and financial objectives.

The Engine No. 1 campaign illustrates engagement in practice and demonstrates its potential to deliver both ESG and financial outcomes. The firm acquired a 0.02% stake in ExxonMobil when the company was undervalued, despite historically high demand for oil and gas. Engine No. 1 identified that Exxon lacked a credible strategy for long-term value creation amid a transitioning energy landscape. They proposed a three-step plan: refreshing the board of directors with personnel experienced in energy transition and decarbonization, improving capital allocation discipline over the long term, and implementing a strategy to create value in a decarbonizing economy (Henisz, 2023).

Through coalition-building with other institutional investors, Engine No. 1 successfully executed its plan. This led to measurable improvements in both governance and strategy, including board refreshment and enhanced long-term planning. This example illustrates how even small shareholders, when strategic and coordinated, can influence corporate strategy and improve ESG outcomes. It reinforces the importance of both expertise and collaboration in engagement campaigns, demonstrating that engagement can be impactful when executed thoughtfully (Henisz, 2023)

5.2 Empirical data and limitations of engagement

Institutional investors increasingly prioritize ESG engagement as part of broader sustainable investment strategies. Moote & Vasantham (2025) in their global investor survey 2024 report find, that 77% of global institutional investors now actively participate in ESG issues that have clear financial impact and 85% reporting that engagement significantly impacts their voting choices. Dimson et al. (2025) similarly highlights the growing global trend toward coordinated engagement, which amplifies the impact of shareholder actions. These developments suggest that engagement is becoming central to sustainable investing and that its influence is likely to increase as more investors prioritize ESG considerations. The trend also underscores the growing recognition that engagement can serve as both a mechanism for improving corporate sustainability and a tool for long-term risk management.

Despite its promise, shareholder engagement also has substantial limitations. Evidence indicates that its effectiveness is highly context-dependent, varying across industries, countries, and firm characteristics. Dimson et al. (2025) show that firms in heavily regulated sectors, such as utilities or health care, tend to be less responsive to ESG-focused engagements because many proposed changes require regulatory or legislative approval, which constrains what shareholder pressure can accomplish. Engagement is also resource-intensive, it demands sustained monitoring, legal and technical expertise, and coordinated action, which can disproportionately limit participation by smaller investors or those lacking specialized capabilities (Dimson et al. 2025).

In addition, engagement efforts often face tension between long-term ESG objectives and short-term financial incentives. Many environmental or social initiatives require years to implement, whereas managers and investors may be evaluated primarily on quarterly results. This dynamic can encourage firms to engage only superficially with ESG requests. Companies may comply symbolically or adopt cosmetic changes rather than undertaking substantive reforms, a practice referred to as “greenwashing” (Delmas & Burbano, 2011). Such symbolic compliance undermines the transformative potential of shareholder engagement and reduces its overall effectiveness in driving meaningful corporate change.

The success of engagement is further contingent on institutional investor support; without coordinated action, the influence of socially responsible shareholders may be diluted (Dyck et al. 2019). Measuring true impact is challenging, as improvements in ESG metrics can result from regulatory pressures, market forces, or internal corporate strategies rather than engagement alone. Engagement may also have unintended consequences; pressure from investors can provoke defensive or short-term strategies counterproductive to sustainability goals (Hartzmark & Shue, 2022). Overall, while engagement is a powerful tool for aligning corporate practices with ESG objectives, it is not a magic bullet and must be complemented by other mechanisms, such as regulation, shareholder activism, and market-based incentives, to achieve lasting and meaningful outcomes sustainable investors desire.

6 Indirect Impact and Systemic Influence

Indirect impact represents the final major mechanism through which sustainable investors can influence corporate behavior identified in Kölbel et al. (2018). Unlike engagement and capital allocation, which operate directly at the firm level, indirect impact functions at a systemic level by deliberately influencing the formal and informal institutions that govern financial markets. Institutions here refer to the laws, norms and social expectations that define what is good and desirable corporate behavior. When sustainable investors are together able influence these, they can create new rules and norms that govern how whole sectors or markets are run and the hundreds of firms within them instead of individual firms

Institutions consist of rules, norms and assumptions that provide a framework for individuals on how to operate. Within financial markets, these institutions determine how companies are evaluated, how investors make decisions and how capital is allocated. Over the past two decades, pressure from investors for more transparency and accountability has contributed to the emergence and adoption of new reporting standards (OECD, 2020). Examples include the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB) and the Task Force on Climate-Related Financial Disclosures (TCFD). These new frameworks have become a core part of how companies communicate non-financial performance and exist largely because investors demanded greater transparency on environmental, social and governance (ESG) risks. By influencing disclosure norms, investors have indirectly affected both market expectations with additional new data risk and corporate strategy to mitigate those risks. Indirect impact functions through the collective expectations of investors have. When large groups of investors adopt a preference for sustainability, they influence the common understanding of what it means for a company to act responsibly or for it to be financially succesful.

6.1 Market and Regulatory Standard Setting

Investor demand for reliable sustainability information has played a major role in the development of market and regulatory standards that institutionalize how ESG information is conveyed. When investors demand better non-financial data to assess firm performance, companies respond by improving disclosure quality, which can ultimately lead to the creation of regulation to harmonize reporting. In Europe, the Sustainable Finance Disclosure Regulation (SFDR) and the Corporate Sustainability Reporting Directive (CSRD) were both introduced in part due to investor demand for harmonized ESG data reporting. Globally, the International Sustainability Standards Board (ISSB) and the Task force on Climate-related Financial Disclosures (TCFD) promote more consistent sustainability reporting standards globally. From an economic perspective, the creation of these standards reduces information asymmetry between firms and investors, enabling more efficient capital allocation and improved pricing of sustainability risks (Kölbel et al. 2018). Harmonizing reporting standards through regulation limits firms' ability to choose most favorable reporting framework, ensuring that reports are more consistent and comparable between firms. The institutional adoption of sustainability reporting changes how markets perceive firm quality based on the new information. Companies can integrate sustainability into their business models to gain legitimacy and to reduce risks, while those that fail to do so may suffer valuation discounts (Clark & Dixon, 2024).

6.2 Collective Action and Field Building

Another core part of how sustainable investors can have systemic influence is through the ability of investors to act collectively. Coalitions such as the Principles for Responsible Investment (PRI) and the Net Zero Asset Owner Alliance (NZAOA) bring together number of large investors with a shared goal to influence market norms. Through collaboration, investors can target systemic issues that individual shareholders would be unable to influence. Marti et al. (2024) describe this process as field building, where coordinated investor activity reshapes the norms and expectations of entire industries rather than single companies. Empirical research supports this mechanism. Dimson et al. (2025) find that coordinated engagement campaigns among institutional investors have produced measurable improvements in corporate carbon disclosure and emission-reduction targets. When large pools of capital coordinate on sustainability expectations, they effectively impose informal regulatory pressure on companies to meet their expected standards. This demonstrates that investor cooperation can shift firm behavior across an entire market segment rather than within a few firms.

6.3 Reputational and Cultural Influence

Indirect impact also operates through reputational and cultural channels. Sustainable investors influence how media, policymakers and the public perceive certain industries and behaviors. When large funds divest from or criticize “brown” industries such as coal, the reputational costs for the targeted firms rise even if their financing costs remain stable. Executives are often sensitive to reputational pressures because exclusion from sustainability focused indices or negative publicity can affect customer perception, employee morale and regulatory pressures. Financial intermediaries such as banks contribute to this process by normalizing ESG criteria as one of the core tools and criteria investors have at their disposal when making decisions. As noted by the OECD (2020), the growth of ESG investing has led financial intermediaries and other market participants to embed ESG metrics and disclosure frameworks into investment processes, reinforcing the normalization of sustainability standards.

ESG rating agencies and index providers such as MSCI and FTSE Russell incorporate sustainability metrics into their methodologies, translating investor values and preferences into quantifiable benchmarks, which allows them to influence what is considered as standard business practice in the market. Fichtner et al. (2024) note that “ESG index providers and benchmark administrators have de facto set the international standards of how funds must be structured for qualifying as “ESG” or “sustainable’’.’’ Highlighting how they play core part in shaping market norms. Once these standards are widely adopted, sustainable investing becomes an expectation rather than a niche activity, gradually altering corporate behavior and market culture.

6.4 Empirical evidence and limitations of systemic impact

Research shows that indirect investor influence is already shaping corporate behavior in several ways, especially through better sustainability disclosure and the rapid growth of new ESG-related financial products. For example, Itan et al. (2025) find that firms face positive market reactions when they provide more transparent ESG information, suggesting that investor demand for clarity creates strong incentives for companies to improve their reporting even without direct engagement. Similar patterns appear in climate-related investment behavior. Krueger et al. (2020) show that institutional investors increasingly consider climate risks when making investment decisions, which can push carbon-intensive firms to shift capital toward cleaner technologies.

Financial innovation also reflects systemic influence. The rapid expansion of green bonds, sustainability-linked loans and ESG exchange-traded funds (ETFs) illustrates how sustainability principles have become increasingly part of mainstream finance. Flammer (2021) finds that firms issuing green bonds subsequently improve environmental performance, suggesting that sustainability-oriented financings can improve corporate accountability. The widespread use of such products has redefined what constitutes legitimate investment practice for a growing share of investors, showing how sustainability principles can spread through market architecture. The findings together support Kölbel et al.'s (2018) view that investor impact can occur systemic level through the transformation of the institutions and norms that underpin financial markets.

Although systemic investor influence has the potential to generate meaningful market-level change, several limitations constrain its effectiveness in practice. These constraints relate primarily to measurement challenges, the concentration of financial power, and the difficulty of establishing causal additionality.

The reliability of sustainability metrics remains a fundamental obstacle. The growth of voluntary ESG frameworks and rating methodologies has produced inconsistent assessments across providers. Lacker et al. (2022) demonstrate that correlations between major ESG rating agencies often fall below 0.6, raising concerns about the comparability and credibility of these evaluations. Such inconsistency allows room for greenwashing, as firms or investors may selectively highlight favorable frameworks while obscuring weaker performance. Kölbel et al. (2018) similarly note that the indirect impact channel is the least empirically supported investor mechanism precisely because these measurement inconsistencies complicate robust inference. Regulatory initiatives, including the EU Taxonomy for Sustainable Activities and the ISSB disclosure standards are intended to harmonize definitions and reporting requirements, yet substantial differences persist across jurisdictions, limiting their global effectiveness. Emerging practices like crosswashing further problematize ESG integrity. In a 2024 study, Hassani & Bahini define crosswashing as strategically presenting ESG-friendly activities to boost ESG scores while maintaining unsustainable core practices. This variant of greenwashing is not yet well captured by standard ESG frameworks, raising serious risks of superficial ESG adoption

The growing concentration of ownership among a few large asset managers introduces governance and accountability concerns. Institutions such as BlackRock, Vanguard and State Street collectively hold significant stakes in many of the world's largest corporations. While these investors publicly endorse sustainability principles, their fiduciary duty is to maximize investor returns that can conflict with long-term environmental or social objectives. This tension may lead to symbolic rather than substantive engagement. Recent policy developments also highlight tension: for example, the U.S. SEC issued new guidance in 2025 that may discourage activist-type engagements, as major managers could face more stringent reporting requirements when engaging in such practices. Moreover, when a small number of actors set the norms for management practices and set market-wide expectations, questions arise about whose values are being promoted and how representative they are of broader societal interests.

Assessing the impact of systemic investor influence remains challenging. Kölbel et al. (2018) argue that genuine investor impact requires that outcomes differ from the counterfactual scenario of what would have occurred without investor intervention. Establishing such counterfactuals at the systemic level is inherently difficult, as shifts in corporate behavior and sustainability norms are simultaneously shaped by policy developments, technological innovation, consumer preferences, and competitive pressures. These overlapping forces make it difficult to attribute observed improvements to investor behavior. Future research is needed to develop better models that can better attribute investor behavior changes to system level changes.

Indirect investor impact is the most far-reaching yet least tangible mechanism of sustainable investing. By influencing disclosure standards, forming coalitions and shaping reputational norms, investors can transform the institutional environment in which firms operate. Evidence indicates that these mechanisms have improved transparency, reduced sectoral emissions and normalized sustainability in global financial markets. However, the challenges of greenwashing, concentrated ownership and measurement uncertainty limit their effectiveness. Overall, indirect impact complements engagement and capital allocation by addressing some of the foundational aspects of market behavior. Its success depends on credible standards, coordinated investor action and alignment with public policy.

7 Conclusion

This work examined how sustainable investors can generate social and environmental impact and through which mechanisms such impact is most likely to occur. Investor impact was defined following Kölbel et al. (2018) as the change in corporate behavior that would not have occurred without investor intervention. This counterfactual definition highlights the importance of distinguishing between actions that simply reflect investor preferences and actions that succeed in altering firm behavior. The analysis throughout the evaluated three major pathways of influence—capital allocation mechanisms such as portfolio screening and divestment, shareholder engagement, and indirect systemic influence—and assessed their ability to drive meaningful change.

The first major conclusion relates to capital allocation strategies. Portfolio screening and divestment represent accessible tools available to sustainable investors, yet their ability to influence corporate behavior is limited. Theoretical models demonstrate that divestment can raise the cost of capital for excluded firms, but only when sustainable investors control a sufficiently large share of total market and when unsustainable firms are poor substitutes for other assets. Empirical evidence indicates that these conditions rarely hold, as neutral investors typically absorb divested shares, resulting in minimal price pressure. While divestment may serve ethical or symbolic purposes and can contribute to broader cultural pressure on certain industries, its direct impact on firm-level decisions appears modest. Therefore, capital allocation alone is unlikely to drive widespread changes in corporate social or environmental performance.

In contrast, shareholder engagement provides a more direct and empirically supported route for influencing firms. Engagement leverages ownership rights to shape corporate policy through voting, dialogue, and the submission of proposals. The literature demonstrates that successful engagement can improve corporate ESG performance, enhance disclosure, and reinforce long-term risk management. Case studies such as the Engine No. 1 campaign show that even small investors can influence large companies when engagement efforts are strategically coordinated and align with financial motives. Nonetheless, engagement is resource-intensive, and its success depends heavily on investor expertise, the willingness of institutional investors to cooperate, and the broader governance context. Despite these limitations, the evidence suggests that engagement is currently the most reliable mechanism for generating measurable firm-level impact.

The analysis also highlighted the importance of indirect systemic influence, which operates at the level of markets and institutions rather than individual firms. Investor demand for sustainability information has contributed to the development of standardized reporting frameworks such as GRI, SASB and TCFD, which have become embedded in financial regulation and market practice. Through collective action, reputational pressure and the normalization of ESG criteria, investors have helped shape the institutional environment that determines which types of corporate behavior are viewed as legitimate and financially material. These systemic changes affect a wide range of firms simultaneously, demonstrating the potential scale of indirect investor impact. However, the mechanism is challenging to measure, susceptible to greenwashing, and constrained by concentrated ownership within the asset management industry. Causality is particularly difficult to establish because changes in corporate behavior often occur alongside regulatory, technological and societal shifts.

Taken together, the findings of this thesis allow for a clear answer to the research question. Investors can generate impact through multiple mechanisms, but these mechanisms differ substantially in their effectiveness. Portfolio screening and divestment have limited behavioral influence except under specific conditions. Engagement provides the clearest empirical evidence of firm-level impact and represents the most actionable tool for investors seeking to influence corporate practices. Indirect systemic influence offers the widest scope for change by reshaping market norms, but its effects are diffuse and difficult to attribute to investor action alone. Overall, sustainable investing can produce meaningful impact, but not primarily through exclusionary practices. Instead, the most effective pathways are active ownership, coordinated engagement and participation in institutional processes that shape market expectations.

These findings suggest that sustainable investing is most effective when supported by credible disclosure standards, mechanisms that facilitate investor coordination, and regulatory frameworks that align financial incentives with long-term societal objectives. For individual sustainable investors, the results imply that allocating capital toward strategies emphasizing engagement and stewardship is likely to produce the greatest positive impact. Future research should continue to explore how systemic additionality can be measured, how regulatory developments interact with investor influence, and how changes in ownership structure—particularly the rise of passive investing—affect the capacity of investors to drive change. As global sustainability challenges intensify, understanding the mechanisms through which capital markets can contribute to environmental and social objectives remain essential.

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Artificial intelligence (AI) tools were used in preparing this work, both for research and for improving the writing. Connected Papers helped me explore clusters of research papers and see which papers referenced each other, making it easier to identify the most relevant sources. I also used ChatGPT-4 and ChatGPT-5 to get feedback on my writing, check that I cited a source in an accurate manner according to its analysis, and help to make the text clearer and more readable.

All the subchapter headings were made using ChatGPT-5, which helped to organize the work, and I made minor changes to the text to fit the new structure. Chat GPT was also used to suggest chapter outlines in a more logical order; I added my own thoughts and then asked AI to help refine the language and suggest improvements. I also used AI to ask questions about my work, which helped me clarify ideas and explain them more clearly in the text. At the end I used ChatGPT-5to transform my paragraphs into clearer academic English and to merge relevant information I had in a chapter I had decided to cut into two other chapters.