Considerations on ESG Investment Implementation

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Although Environmental, Social and Governance (ESG) investing has become increasingly popular over the last decade, with exponential growth in flows into ESG mutual funds and ETFs as well as in the number of signatories to the Principles for Responsible Investment (PRI), questions still exist around many aspects of the investment approach. The first, and most important, issue is the lack of agreement on what ESG investing means and what an ESG investing approach entails. Moreover, people use the concept in many different ways. For some, ESG investing refers to socially responsible or ethical investing and it serves as a way to investing according to their values. For others, ESG investing refers to an investment approach of examining the risk exposures and return opportunities that develop from corporations' environmental, social and governance activities. Finally, for still others, ESG investing is viewed as a combination of the two. These are not interchangeable motivations and they do not result in the same portfolios.

The different investment approaches to ESG investing develop from these variations in investor motivations. The approaches can be divided into two main categories: Investing based on *ESG values* versus investing based on *ESG value*. The first category reflects the origins of ESG investing – socially responsible investing and corporate social responsibility – which date back many years (Renneboog, Ter Horst, and Zhang, 2008, Starks, 2021). Under this category, the ESG investment approach focuses on preferences, usually non-pecuniary preferences, e.g., world peace, human rights, religious values, climate change, etc. The most common strategy for those who employ the *ESG values* approach is through exclusion, i.e., negative screening, divestment. In particular, this approach commonly entails excluding those companies whose products or behavior would be counter to the values of the portfolio manager or client. This type of preference can reflect a desire to avoid complicity in supplying capital to a corporation with problematic products or behavior or alternatively, a desire to supply capital to certain types of businesses, such as renewable energy. The *ESG values* category also includes an approach in which the portfolio manager or client wants to make an impact through supplying capital, e.g., impact investing or community investing. In addition, the *ESG values* category often encompasses an approach to achieve impact goals through engagement of firm management to change their products or behavior.

The other major category for ESG investment, *ESG value*, refers to an approach in which analysis of ESG issues leads to return opportunities or better risk management. The most common investment approach for this category is to employ an ESG integration approach in which a firm's ESG qualities are employed in order to better understand the ESG risk exposures and return opportunities. Similarly, the portfolio manager may believe that using an ESG lens provides a better way to find unique return opportunities, mitigate risks or engage in a smart beta strategy. In addition, the portfolio manager may also employ two common related approaches: positive screening for high ESG-quality securities or tilting the portfolio to weight it toward higher ESG quality assets. Some portfolio managers employ an ESG momentum portfolio to capture their expected gains from assets with increasing ESG quality. Others take an ESG thematic approach, for example, by investing in firms with solutions to environmental problems such as firms that provide energy solutions (e.g., renewable energy firms), or alternatively, health solutions, biodiversity solutions, water solutions or equivalently in firms with solutions to social issues such as firms with better diversity and inclusion cultures or better human capital management. Finally, some investors utilize an ESG investment approach of engaging with firm management in order to increase the firm's ESG quality.

The division between *ESG values* and *ESG value* does not constitute a clear boundary as many ESG investors have both motivations. For example, a FTSE-Russell 2021 global survey of asset owners about their views on sustainable investment, finds mixed motivations: 56% stated that it is about being a universal investor, that a marketplace with advanced climate/sustainability standards will have improved or more stable long-term returns; 50% said it is about better portfolio returns – corporates/issuers with stronger sustainability or climate practices have preferable investment characteristics; 46% said that it was because of the preferences or concerns of beneficiaries or stakeholders. Strikingly, only 9% said that they were willing to trade off financial return for social or environmental impact.[1] Similarly, a Callan 2021 ESG Survey of foundations, endowments, public and private pension funds found that 55% of the respondents incorporated ESG factors because it aligned with their values; 46% for an improved risk profile; 34% for better long-term returns; and 18% to make an impact. (The last motivation average came from 56% of the foundations, 10% of the endowments, 7% of the public pension funds, and 0% of the corporate pension funds.)[2]

Decisions on ESG Investment Approaches

The first decision in the ESG investment approach for *ESG values* as well as *ESG value* is whether to employ an exclusionary or portfolio tilt approach. For the *ESG values* investor, part of this decision depends on the extent to which the investor wants to avoid complicity and does not want to provide capital or receive returns from a certain type of business. However it is not quite as simple as it might appear. For example, take an investor that does not want to invest in any business related to alcohol consumption. Does this investor avoid all companies with even minimal alcohol revenue, including grocery stores? The exclusion or divestment approach suggests that the investor

[1] See https://www.ftserussell.com/index/spotlight/sustainable-investment-2021-global-survey-findings-asset-owners
[2] The Callan Survey also included two additional responses: 54% stated that incorporating ESG factors was due to their fiduciary duty and 46% stated that it was due to their stakeholder concerns. https://www.callan.com/blog-archive/2021-esg-survey/

eschew those companies with minimal revenue from problematic products, but the positive portfolio tilt approach would instead simply put less weight on problematic low ESG firms (although it could still be zero in some circumstances). Depending on the extent of the preferences, the exclusion approach can result in larger tracking errors, i.e., more tradeoffs of potential returns for preferences. In the case of exclusions, these tradeoffs could be costly for the investor as they could result in a portfolio with less diversification and less liquidity. In contrast, the portfolio tilting approach allows for better diversification across sectors.

In addition, the exclusion approach restricts the investor's ability to directly push for changes in the firm as the investor does not have an opportunity to vote on a firm's proxies or engage with firm management to change their products or behavior. In contrast, the positive portfolio tilt approach gives the investor opportunities to vote on proxies and engage the firm to pressure for better ESG behavior. In a recent working paper, Edmans, Levit, and Schneemeier (2022) point out that although using the exclusion approach minimizes the externalities faced by a portfolio that screens out problematic firms, such an approach also provides no incentives for the problematic firm's management to pursue corrective changes because the firm will be excluded regardless. On the other hand, employing a portfolio tilting strategy provides the firm's management with incentives to pursue those changes in order to achieve capital to expand their business.

The exclusion approach also entails complexities that are often not considered. Does one exclude an entire business type or industry or just the worst firms? Statman (2000) has pointed out that divestment in order to withhold capital does not necessarily result in the desired change unless there are insufficient numbers of other investors willing to provide the capital. That is, he points out that it only works if the capital supply function is less than perfectly elastic, which is probably not the case. Davies and Van Wesep (2018) show theoretically that even a large divestment campaign would not affect the compensation of the firms' management sufficiently to provide incentives to respond to the campaign. They argue that social pressures would be more likely to result in the desired change in corporate behavior.

Beyond the exclusion approach, some investors advocate for short-selling the problematic ESG firms.[3] The advocates of this approach provide several rationales. First, shorting the problematic firms has the potential to increase returns, while just excluding the stocks does not. Second, shorting not only deprives the firm of the investor's direct capital, but it also has the potential to put more pressure on the firm to change its behavior. In particular, if the short-selling is substantial (for example, from many investors), then that can result in an increase in the firm's cost of capital. And related to Statman's elasticity argument mentioned above, the short selling would be more likely to be successful.

Third, shorting low ESG firms is a way to hedge against ESG risks. For example, Engle, Giglio, Kelly, Lee, and Stroebel (2020) provide evidence on shorting stocks in order to hedge portfolios against negative climate change news. The authors find that the shorting approach provided a better hedge than did investing in renewable energy portfolios. Finally, short-selling can help a portfolio's ESG footprint. For example, in pursuit of a net zero strategy, the short position on a firm with high carbon emissions could help offset long positions and would be an alternative to purchasing carbon offsets in the pursuit of a net zero strategy (Palazzolo, Pomorski, and Zhao, 2020; Asness, 2021).

Arguments also have been made against the short-selling approach as an ESG strategy. There are those who question the relation between short-selling and a firm's cost of capital (Mahmood, et al., 2022). Moreover, the short-selling approach implies a removal of the ability to engage with the firm. For example, short selling can be equated to divestment in that it leaves out the role of

[3] See, for example, AIMA (2020), Palazzolo, Pomorski, and Zhao (2020) and Asness (2021, 2022).

the long-term investor with strong engagement with firm management to change their policies. There is also the question of whether short selling helps in the net zero calculation. For example, the Sustainable Finance Disclosure Regulation (SFDR), which is supposed to provide guidance against so-called greenwashing by investment managers selling in European markets, has not yet ruled on how shorting a low ESG firm should be treated in the required portfolio ESG disclosure framework. In particular, no guidelines exist regarding whether long positions can be offset by short positions in the disclosure.

ESG integration

Integrating ESG into the investment decision framework takes many different forms, but in general investors consider quantitative analysis overlaid with qualitative analysis. Examples of the quantitative analysis include evaluating whether the ESG issue affects a firm's cash flows or discount rate. For example, an ESG issue could be judged to potentially affect customers' perspectives on a firm and consequently, firm revenue. This effect could be positive or negative. Another ESG issue could highlight an ESG risk exposure, which could be judged to increase a firm's risk and thus, its discount rate. Governance factors have long been incorporated into investors' investment decisions. Companies that adopt better governance factors are often considered to have lowered their risk exposures and thus have lowered their costs of capital. On the other hand, companies that have compromised their corporate governance due to corporate behavior are considered to have increased their risk exposures.

Some investors employ firms' ESG profiles in factor models such as ESG smart beta or strategic beta strategies. For example, there exist ESG smart beta ETFs: some combine an ESG strategy with a minimum volatility strategy; some combine an ESG strategy with an equal-weight index strategy; and some employ ESG with a dividend-yield weighting strategy, an ESG momentum strategy, or a smart beta strategy based on climate exposure. These types of strategies have seen increased usage, although like ESG there is not a firm definition of the term "smart beta." In a

2020 survey of asset owners, FTSE-Russell found that 81% of those located in Europe, the Middle East or Africa and 42% of those located in North America anticipated applying ESG, climate or exclusion considerations to a smart beta strategy. Moreover, these percentages had increased rapidly as in 2018, the responses had been 52% and 25%, respectively.

Using ESG Ratings for Investment Decisions or ESG Disclosures

There exist many different proprietary sources for ESG measures for firms. The ESG rating services have been criticized for having disagreement among the different ratings for the same firm. Although comparisons have been made to credit ratings, which have very high correlations, it is not the case that ESG ratings services should be in such high agreement. Given the differences in opinion regarding the definition of ESG, it should not be surprising that wide variation exists across the ESG third-party ratings. Moreover, ESG ratings services themselves differ in their goals and perspectives. Thus, ESG ratings are more appropriately compared to differences in sell-side analysts' ratings and recommendations.

Many of the metrics on ESG are not clearly defined as ESG ratings agencies develop different metrics and they give different scores to companies. Even clearly defined metrics on ESG are not well measured because companies do not disclose enough data. The latter problem is being approached by the collaborations to achieve standardization across the relevant standard setting organizations as well as the accounting firms. In examining the issues surrounding ESG ratings differences, Berg, Koelbel, and Rigobon (2022) compare ratings across six different ratings providers and find that the correlations across the raters range from 0.38 to 0.71. Further they find that these differences arise due to differences in the raters' choices regarding measurement, scope, and weighting with measurement divergence contributing the most to the overall divergence at 56%, scope divergence contributing 38%, and weight divergence contributing 6%. The authors also find an individual rater effect that is important.

These differences in ratings measurement may arise in part because of differences in disclosure, but the relation is in a perhaps unexpected direction. Christensen, Serafeim and Sikochi (2021) find that greater ESG disclosure by firms leads to greater ESG rating disagreement. They also find that greater ESG disagreement among the raters is associated with higher return volatility, larger absolute price movements, and a lower likelihood of issuing external financing. Similarly, as discussed further below, Gibson Brandon, Krueger and Schmidt (2021) find that greater ESG disagreement among the raters is associated with higher returns.

As Berg, Koelbel and Rigobon (2022) point out, the ESG ratings divergence they document does not just indicate that the rating providers have different definitions, but that there is disagreement about the underlying data. Thus, before using ESG ratings for investment or disclosure purposes, the user should understand what aspects of ESG the third-party rating services are trying to measure as well as to understand how they are measuring those aspects.

The research on ESG scores has several implications for practical ESG implementation using ESG ratings. (Anecdotally, many ESG portfolio managers already follow these steps.) First, the portfolio manager should consider more than one rater's scores. Second, rather than relying on just the aggregate score for ESG, the portfolio manager should consider E, S, and G separately. Third, and most importantly, the portfolio manager should go to the raters' underlying indicators and potentially construct their own scores using their own scope and weight decisions. Fourth, when the rating disagreement among raters is higher, the portfolio manager should dig deeper to investigate the potential reasons for this higher disagreement.

Disclosure on ESG Quality of Portfolios (from an investor's needs perspective)

Regulatory bodies and other organizations, such as accounting standards boards, across the world have been working on the appropriate disclosure policies for the ESG quality of firms and portfolios. These policies along with other regulations pertaining to sustainable finance policies have been increasing rapidly. As of the last (August 2021) update of the PRI database on these regulations, they had documented 750 policy tools and guidance across 86 countries, of which 96% have been developed since 2000.[4] Moreover, although the PRI only had a partial year for

[4]See https://www.unpri.org/policy/regulation-database

2021, they had already identified 159 new or revised policy instruments, which was more than the total for the 2020 year.

More of these policy instruments exist in the European Union than in other regions of the world. The EU Commission has announced their 2022 goals with regard to sustainable finance. In terms of their taxonomy, the EU has focused on oil and gas and nuclear issues. They are also considering the appropriate green bond standards; guidance for corporate disclosure of climate-related information and ESG and climate benchmarks. Europe also has the SFDR that requires principles-based disclosures on the portfolio's ESG qualities, both across sectors and within sectors. For example, financial market participants and financial advisors are required to disclose specific information on their approaches to the integration of a 'sustainability risk' into their investment decisions.[5] In the near future (2023), they will also have to disclose the extent to which their decision-making process and their investment products take into account the consideration of principal adverse impact indicators. Examples of these indicators include greenhouse gas emissions, carbon footprints, biodiversity impacts and board gender diversity.

If EU regulations predict US regulations, then the implication is that more regulation should be coming for the U.S. as well. Just recently the SEC put forth a proposal regarding mandated disclosure on climate-related issues. But expectations are that more mandated disclosures related to other ESG topics may also be forthcoming, particularly as other U.S. regulators are considering ESG practices. For example, the Municipal Securities Rulemaking Board (MSRB) in December 2021 issued an RFI to solicit public input on environmental, social and governance (ESG) practices in the municipal securities market. In addition, in August 2021, Gary Gensler, Chairman of the SEC, tweeted that he had asked staff for recommendations on human capital disclosure, which "could include a number of metrics, such as workforce turnover, skills and development training,

[5] A 'sustainability risk' is defined as an 'environmental, social or governance event or condition that, if it occurs, could cause an actual or potential material negative impact on the value of the investment.'

compensation, benefits, workforce demographics including diversity, and health and safety." Although a new human capital disclosure requirement had gone into effect the previous November, the SEC had not defined the term "human capital" but had left that to the discretion of firms' boards and management. New rules on disclosures that are important to ESG investors, whether in the municipal securities markets or for firms, implies that portfolio managers will need to consider not only how to use this new data in their investment decisions, but also how to disclose it to their investors.

Portfolio ESG disclosures do not just depend on actions by the regulators – mergers and convergences of the previously different sustainability accounting groups are providing guidelines for what companies and institutional investors can do to make their ESG profiles clearer to their investors. Other parties have weighed in as well with guidelines for portfolio ESG disclosures, such as the CFA Institute.[6]

The challenge with ESG disclosure for an investment manager is how to determine the appropriate disclosures. Given the large amount of information that could be disclosed, it becomes imperative to have a filter and the filter depends on the purpose – Does the party that wants the information want it because of *ESG values* or *ESG value* or both? For *ESG values* – the most important filter is relevance. Is the ESG aspect relevant to the structure of the portfolio, to the investor? For *ESG value* - the most important filter is materiality. Is the ESG aspect material to the risk and return of the portfolio? That is, how do the ESG activities relate to financial materiality. Thus, the investment manager should provide full disclosure of ESG issues with particular attention to those issues that are financially material. For example, SASB varies its ESG reporting standards across industries according to the financial materiality for each industry.

[6] https://www.cfainstitute.org/en/ethics-standards/codes/esg-standards

Under both viewpoints, which ESG aspects or metrics should be reported depend on not only relevance and materiality, but also the goals of the portfolio and the importance of different issues to the portfolio's investors. For example, the importance of different E, S and G issues have changed somewhat over time. While environmental, particularly climate change issues, have remained important, more recently, certain social issues have moved up in importance. Further, if the investment manager reports on E, S and G separately, it can become difficult because of the interconnection between E, S and G.

There is a strong need and desire for transparency. Investors want to understand how their money is being invested. The portfolio manager should be clear on what framework is being followed for the disclosure (e.g., SDGs, TCFD, SASB), although with the collaborative actions, this may become less important.

ESG portfolio disclosure is most helpful to investors if they can easily find it, so disclosing it in multiple places, e.g., the prospectus, the fact sheet, the annual report, and the website, would appear to be in order. The first question is then how to define the ESG to be disclosed. As in everything else, it depends on whether the ESG investing accords to *ESG values* or *ESG value* or both. If investments are solely based on *ESG values* by the exclusion of certain types of businesses, then disclosure on what businesses are being excluded may be sufficient. These are the relevant disclosures and they could include the sectors/business types/firms excluded as well as the number excluded. An optional disclosure could be one that includes the tracking error from a primary index caused by the exclusions.

On the other hand, if the investments are based on *ESG value* or *ESG value* combined with *ESG values*, then more complications arise. The portfolio manager needs to consider the benchmark for comparison. Alternatives include a general benchmark such as the S&P 500 or Russell 1000 or an ESG Index. Investors would want to know not only the aggregate ESG qualities of the portfolio, but also the E, S and G qualities separately. The portfolio manager should consider the difference between backward-looking and forward-looking ESG measurements. Investors would ideally like to have both. The backward-looking measures provide investors with assurances regarding previous promises or assumptions while the forward-looking measures give the investors information for their current investment considerations. Including both types also provides investors with information on the ESG outcome of the portfolio investments.

If the portfolio has exclusion of sectors, business types or individual firms, those details could be provided and depending on the circumstances could include the number of firms eliminated compared to the benchmark. Also the reasons for the exclusions such as product types or corporate behavior, including corporate controversies.

If the portfolio manager employs an ESG ranking system, it would benefit the investor to report on these rankings. For example, if the ranking system in use includes third-party ratings, then disclosing those ratings on a portfolio basis would be helpful. This would be particularly beneficial for mutual funds or ETFs whose portfolios' ESG qualities are being assessed already by outside parties such as Morningstar, MSCI or ISS. The investors would also benefit from having the rating system explained and interpreted. This is particularly important if the portfolio manager is using a proprietary rating system.

If the portfolio manager uses an ESG integration process, then investors would benefit from having that process explained, including with examples. If the portfolio manager is employing engagement as an ESG strategy, then the engagement process could be explained and some insight into its success would be beneficial (not necessarily naming the firms). Having explanations is particularly important in cases where the firm is holding problematic firms such as low-ranked ESG firms and engaging to improve the ESG quality of the firm. This helps prevent misunderstandings regarding the ESG quality of the portfolio.

For most portfolios, it would benefit to have the carbon footprint disclosed as many investors want that information. (For investment managers operating in Europe, the carbon footprint is part of the SFDR-required disclosures with a formula for how to calculate it.) Given the concerns on greenwashing, providing data to investors is important. That is, the investors want to know that the portfolio managers are being accountable for their claims. Again this goes back to *ESG value* versus *ESG values*. If ESG is being incorporated into the investment decisions, then explaining this incorporation becomes essential to the reporting task. On the other hand, if ESG is reflected through the values in the portfolio, then explaining those values decisions becomes the primary role of the reporting.

Regardless of the ESG strategy employed, with the increase in ESG shareholder proposals, the portfolio manager could explain the proxy votes on these proposals. For registered investment companies, this should go beyond the SEC-required voting policy and procedures document and the proxy voting record. Given the often subtle differences across the wording of shareholder proposals on the same topic, providing an explanation for particular votes would go far in correcting misunderstandings.

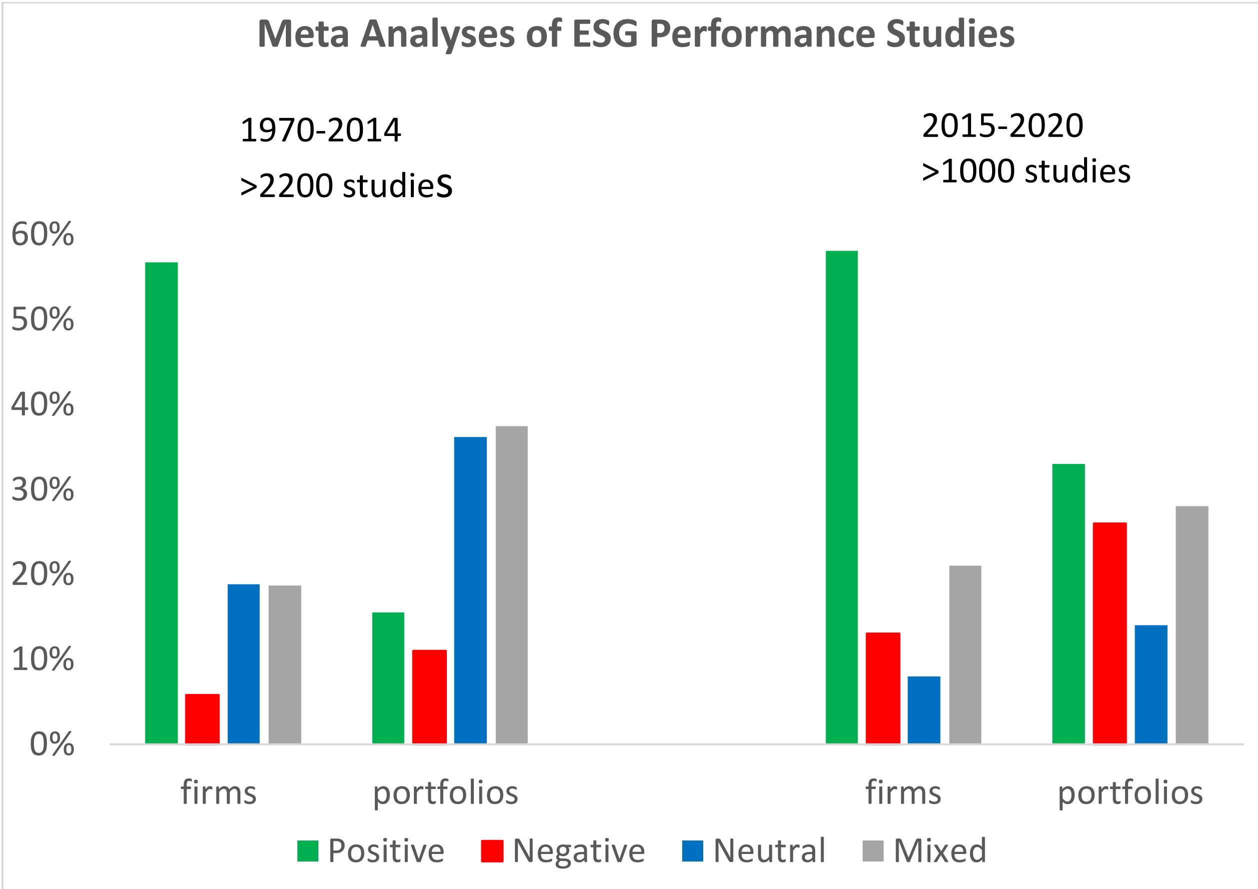
ESG Investing and Return Performance

An ongoing debate continues on whether ESG investing implies higher long-term returns or a tradeoff and thus, lower long-term returns. This debate exists among practitioners and academics. The empirical evidence is somewhat muddled, resulting in very diverse opinions across both practitioners and academics. Further, people have a tendency to interpret evidence according to their own beliefs.

Those who believe that ESG investing constitutes a tradeoff argue that ESG portfolios should underperform because they are a constrained optimization. That is, because they cannot invest in all companies, the ESG portfolios have a smaller investment opportunity set and consequently, should expect to earn lower returns. This argument stems largely from the view of ESG investing as an approach that arises from investors' values and thus, includes negative screening to avoid complicity. Before ESG investing strategies became popular, there was an active debate on whether SRI funds should be expected to outperform or underperform conventional funds. Those who argue that SRI funds should underperform, have argued that because these funds generally employ a negative screening process, they can only be constrained optimizations because they omit part of the investment universe (see Geczy, Stambaugh and Levine, 2021). That is, these portfolios do not get the full benefits of diversification (less risk for the same return) and/or they do not get the benefit of a higher performing asset that is one of the shunned firms. This same argument cannot necessarily be applied to all ESG investment strategies because many of these strategies are based on risk assessments rather than exclusion strategies based on products or corporate conduct.

In addition, many ESG investors today do not believe that investing this way means they have to give up financial returns. They believe that investing according to ESG principles is necessary because of the risks inherent in firms' ESG exposures. For these investors the assumption is that the risk-adjusted ESG portfolios should perform the same as the market and that they are not worse off through this approach and may even be better off. As another example, many impact investors today want to achieve market risk-adjusted returns rather than conciliatory returns as was often the case in the past.

Finally, there are those that believe high ESG quality portfolios should outperform on a risk-adjusted basis. For example, this outcome could result if companies that have high ESG quality have better management or if companies with high ESG quality have better risk management.



There exist a large number of empirical studies on the performance of SRI or ESG firms or portfolios as compared to conventional firms or portfolios. Two meta-analyses have calculated that there exist more studies with ESG positive performance conclusions than conclusions of neutral relationships or mixed findings and much fewer studies with a negative relationship. A meta-study of more than 2200 published empirical academic studies (management science, finance, economics) conducted between 1970 and 2014 concluded: "Roughly 90% of studies find a nonnegative ESG–CFP [Corporate financial performance] relation…More importantly, the large majority of studies reports positive findings." (Friede, Busch, and Bassen, 2015). In this analysis, the authors determined that when measuring ESG performance using a firm-level analysis, 57% found a positive relation between ESG and firm performance, 19% a neutral relation, 6% a negative relation, and the remainder had mixed findings. When using a portfolio-level analysis, the authors found 16% positive relations between ESG and portfolio performance, 36% a neutral relation and 11% a negative relation. Thus, although a large difference exists between the two major types of analyses, using firm-level or portfolio-level analyses, the negative findings in either type of study were small. Whelan, Atz and Clark (2021) had somewhat similar results in their meta-analysis of more than 1000 empirical studies from 2015 through 2020. Using a firm-level analysis, 58% found a positive relation between ESG and firm performance, 8% a neutral relation, 13% a negative analysis, and the remainder mixed. When using a portfolio-level analysis, the authors found a greater number of both positive and negative results than the earlier meta analysis with 33% positive, 14% neutral and 26% negative.

However, these meta-analyses and even many of the articles on which they are based do not consider the differences across ESG portfolios, particularly those that are based on *ESG values* rather than *ESG value*. Thus, aggregating across portfolios based on animal rights or world peace would not necessarily be expected to result in similar time series of returns. Some researchers have tried to address this issue. For example, Statman and Glushkov (2016) develop a six-factor model that includes two additional factors, one for social responsibility criteria and the other for negative screening of shunned company investments (e.g., tobacco, alcohol, gambling). In addition, Brière, Peillex, and Ureche-Rangau (2017) incorporate screening choices into their analysis and find for the comparison between ESG portfolios and their conventional counterparts in aggregate, there existed relatively modest effects arising from the screening choices. When they examine the portfolios cross-sectionally, they find that the screening choices do have large effects in some instances.

Beyond the screening choices, the question arises as to whether E, S and G fit together as one aggregate quality. Should instead performance be considered with each of these issues separately? This fits with both the *ESG value* and *ESG values* motivations as some investors may be better prepared to incorporate E, S or G into their investment decisions and some investors may have stronger preferences on the E or S quality of their portfolio. In fact, with regard to the environmental aspect, Pastor, Stambaugh and Taylor (2021) provide evidence that the greater return performance for the stocks with the higher environmental scores is apparently driven by climate-news shocks and they question whether we should expect future abnormal returns for ESG firms.

Berg, Koelbel, Pavlova, and Rigobon (2021) have considered the problems arising from noisy ESG ratings. Using a noise-correction procedure, they show that the previous regression estimates of the impact of firms' ESG ratings on stock returns are biased downward by about 60% and that the effect of ESG performance on stock returns is stronger than previously estimated. In a complimentary study, Gibson Brandon, Krueger and Schmidt (2021) use ESG ratings from seven different data providers and examine the relation between the ratings disagreements and stock returns. They find that stock returns are positively related to the ESG ratings disagreement, and that this relation is primarily driven by disagreement about the firm's environmental rating.

As with any performance studies, we need to consider that we have limited observations across time, and sector influences can weigh on ESG performance due to the inherent ESG quality nature of the different sectors. For example, with the exception of the last quarter, there has been generally strong performance of the tech sector and poor performance of the oil and gas sector. Thus, we need to consider whether these performances have had undue influence on the interpretations of the performance of high ESG firms.

Another issue with the performance analyses is a potential identification problem of reverse causality. That is, even in the case in which performance is concluded to be better or at least no worse off, is it the case that firms that do good also do well or that firms that do well can afford to do good?

ESG Engagement and Performance

Another issue with an analysis of ESG scores and firm or portfolio performance is that a common ESG strategy is to hold lower ESG quality firms and employ engagement to improve the ESG aspects and increase the value of the firm. Because ESG engagement strategies are typically conducted behind the scenes (McCahery, Sautner and Starks, 2016; Krueger, Saunter and Starks, 2020), it is difficult to establish whether they are successful without proprietary data from the investor who implements this strategy. A number of studies have examined the relation between stock returns and engagements on governance issues (e.g., Smith, 1996; Carleton, Nelson, and Weisbach, 1998; Becht et al., 2009; Becht, Franks and Wagner, 2021). Fewer studies have also examined the relation between stock returns and engagement on social or environmental issues (e.g., Dimson, Karakaş, and Li, 2015; Barko, Cremers, and Renneboog, 2021). These researchers generally have found that institutional investors' ESG engagements have appeared to be successful in improving a firm's E, S or G qualities, resulting in higher returns. Further, while these studies have focused on the first moment, mean stock returns, one study has examined whether engagement has been successful in changing E, S or G qualities and significantly reduced downside risk (Hoepner, Oikonomou, Sautner, Starks and Zhou, 2021). In particular, these authors find that the measured risk reduction effects depend on whether the engagement is viewed as successful and the effects vary across engagement types with the most effective engagements (in terms of lowering downside risk) arising from those that address environmental topics (primarily climate change).

Conclusions

While ESG investing is still rapidly growing in popularity, what it means depends on the context. The *ESG values* perspective implies that non-financial factors are important, while the *ESG value* perspective implies that the E, S and G activities can be financially material, particularly for long-term investors. Such financial materiality can come from better risk management and identifying return opportunities, including through engagement.

Considerations on what investment approach to take, how to measure the ESG quality of a portfolio, how to report on the ESG quality of a portfolio and the relation between ESG qualities and performance depends on which context is important to the investors.

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