CIO Insights Reflections
Making a positive impact – on financial performance and on society
Measuring ESG

April 2018
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Preface

Nearly five months have passed since we published our CIO Insights Special dedicated to investments based on environmental, social and governance factors – or ESG for short. I often hear that investors find the subject of interest, but worry that focusing only on non-financial aspects might detract from financial performance. This is a legitimate and very topical question. The present CIO Insights Special aims to shed a light on this statement by analysing nearly half a century’s worth of academic and empirical studies on the subject, as well as reflecting on our own experience in managing ESG portfolios.

The results are encouraging. At the very least, it is safe to say that ESG concerns need not detract from financial returns. More specifically, different ESG approaches naturally produce different results. In many cases, attention to sustainability can help boost financial returns when certain conditions are met, as we outline in detail. It is of crucial importance that every investor understands what differentiates a chosen ESG strategy from a comparable conventional investment in order to align their beliefs with their financial goals successfully. This is important because in addition to the “normal” twofold aim of a conventional investment, an ESG investment has a third goal added to it, namely to produce a positive impact on the environment, on society or on corporate governance. Our analysis suggests that these goals need not be mutually exclusive.

Having conducted this investigation on thousands of case studies on the matter I am convinced that investors benefit from a wide choice of investment strategies that have a positive impact on society, on the environment and on corporate governance, while at the same time optimising financial returns and minimising portfolio risks. In other words, the evidence shows that ESG as an investment theme has come of age – I hope this publication succeeds in showing why.

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Following up on the CIO Insights ESG Special “Act today to ensure our future”, published in November, we now take a closer look at the relationship between ESG considerations and financial return. It has long been argued that integrating considerations about environmental, social and governance aspects into investment portfolios reduces the investable universe and thereby inevitably detracts from financial performance. In this publication, we show why this is not the case and in which instances ESG aspects, far from representing a cost, can have a positive effect on both investment returns and risk considerations.

The ESG spectrum is rapidly gaining a certain level of maturity in some areas, but remains vastly underexplored in others. Informed investors can put these divergences to good use, in order to benefit from developing trends before they “go mainstream”. But to do this, they require an understanding of the impact of ESG on investment returns. While the direct effects of ESG considerations on returns are an obvious area of investor interest, our findings show that less visible indirect effects play an equally important role in determining financial performance, such as the impact on a company’s risk profile, its governance and its business practices. These in turn have a profound effect on revenue stability and long-term profitability.

By way of an example, we are aware of fixed income portfolio managers who for ethical reasons run companies through an ESG screening before buying their debt: they keep finding time and again that by not investing in the debt of companies who fail this test they protect their portfolios from defaults. This is a remarkable demonstration of how non-financial considerations have a direct financial impact, in this case by reducing portfolio losses. In other words, ESG considerations can be used to complement economic decisions in order to spot financial risks that might not show up in financial reports.

In the first ESG Special, we presented socially responsible investing as a long-lasting experiment in asset management. In the academic domain, its very existence has attracted a vast amount of research, in order to link “ethical” considerations, ESG screens and investment performance.

Before going through the main findings of the financial literature on this issue, let us first address the objection noted above that ESG filters (“restrictions”) will necessarily hinder performance as they reduce the investable universe. As pointed out by Cengiz et al. (2010), sustainability or ESG filters will include a new level of analysis that may actually enhance investment returns due to better visibility of where to invest and where not to invest.

Assessing ESG performance drivers

As long ago as 2006, Alexander Kempf and Peer Osthoff, two researchers at the University of Cologne in Germany, undertook a comprehensive study of US stocks in order to investigate the relationship between socially responsible investment criteria and financial performance drivers.
effects on the environment, on society and on people that are often insufficiently acknowledged and priced into the goods and services being produced. One dramatic example is the deforestation that takes place in order to make space for palm oil plantations. The ensuing loss of oxygen-producing rainforests and the fumes caused by the bushfires used to clear the land have a negative effect on air quality for over a billion people across South East Asia and are known to be a prime cause for respiratory illnesses in the region. Yet, palm oil is the cheapest vegetable oil that exists, in spite of being sold at a profit. If the externalities caused by its production were correctly priced into the product, its price would be prohibitive, causing demand, and hence production, to stop entirely.

In this report we aim to answer the question of how different ESG strategies affect portfolio performance empirically. To this end, several studies have compared the returns of ESG funds with those of similar conventional funds, setting off by stating that in principle, socially responsible investors should not in theory be able to earn an abnormal performance compared to mainstream investors because according to the efficient market hypothesis, at any given time security prices reflect all available information. Therefore, investing at market prices into an ESG strategy should not allow any kind of outperformance.

Additionally, what the researchers defined as an “artificially constrained socially responsible portfolio” should lead to inferior financial performance because it is less diversified, having excluded those stocks not deemed to fit in with the chosen ESG criteria.

However, there is significant evidence that social and environmental issues may not be correctly priced by financial markets, creating the scope for above-average returns in the long term. This argument ties in with the mispricing of externalities discussed in the previous ESG Special. Economic activity has countless side effects on the environment, on society and on people that are often insufficiently acknowledged and priced into the goods and services being produced. One dramatic example is the deforestation that takes place in order to make space for palm oil plantations. The ensuing loss of oxygen-producing rainforests and the fumes caused by the bushfires used to clear the land have a negative effect on air quality for over a billion people across South East Asia and are known to be a prime cause for respiratory illnesses in the region. Yet, palm oil is the cheapest vegetable oil that exists, in spite of being sold at a profit. If the externalities caused by its production were correctly priced into the product, its price would be prohibitive, causing demand, and hence production, to stop entirely.

In this report we aim to answer the question of how different ESG strategies affect portfolio performance empirically. To this end, several studies have compared the returns of ESG funds with those of similar conventional funds, but according to the aforementioned researchers, fund returns are biased by the stock picking and market timing ability of the respective fund managers. Because the fund manager’s individual ability cannot be separated from the financial performance of ESG-orientated stocks, the researchers classified single stocks according to how they rate against a typical basket of ESG criteria, including community engagement, employee relations, environmental concerns and the ethical nature of their products. The stocks that scored best on these criteria were given a high ESG grade, those at the bottom a low ESG grade. Based on data spanning from 1991 to 2004, a period that includes both market booms and recessions, the findings showed that model portfolios of stocks with a high ESG grade (known as a best-in-class portfolio) did not suffer from any loss of performance compared with their peers. As the researchers concluded, the results of the high-rated portfolios suggest that “socially responsible investors do not sacrifice financial performance by

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1 The Effect of Socially Responsible Investing on Financial Performance *Alexander Kempf, Peer Osthoff, 2006, Department of Finance and Centre for Financial Research, University of Cologne, Germany*
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Can ESG enhance investment returns and reduce risks?

Two prominent studies conclude that the question to ask is not “How well does the average ESG investment process perform?”, as this would muddle the skills of the individual asset managers surveyed with the merits of ESG investments in general. Instead, the researchers argue that the key question for the individual asset manager, institutional investor, or private client is, “Can ESG criteria enhance returns on investment processes if implemented in a sophisticated way?”

Intuitively, the sophistication of the screening may deepen the knowledge of every aspect of the firm in which one is investing, avoiding a strict screening that may restrict the investable universe too much, and dampen portfolio diversification.

Indeed, one academic study which differentiates between sophisticated ESG asset managers and those asset managers without substantial ESG capabilities finds that the former significantly outperform their peers while the latter significantly underperform their conventional peers (Gil-Bazo et al., 2010). Hence, technical sophistication is crucial for ESG investment processes.

This includes access to in-depth ESG data, either gathered via a team of in-house specialists, or acquired through a dedicated ESG research provider. Then these data then need to be put to use in an investment strategy that exploits the strengths of securities linked to “ESG-friendly” firms. In other words, a sophisticated approach requires an understanding of how each firm in the chosen investment universe can positively contribute to investment returns within the chosen strategy while at the same fulfilling the desired ESG impact.

Sometimes the potential for ESG gains is more apparent. It is intuitive that for instance a reduction of energy consumption through eco-efficiency projects can save a substantial amount of money and increase reputation and perceived utility for clients. Hence, it is not surprising that substantial return enhancement opportunities have been found in both segments (Derwall et al., 2005, Eichholtz et al., 2010). Similarly, employee relations ratings are likely important to those industries for which human capital is one of the very top performance drivers as is the case for information technology. Hence, Edmans’s finding from 2011 that “America’s Best Companies to Work For” earned 2.1% per annum more than industry benchmarks over the period from 1984 to 2009 is not surprising.

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Concerning corporate governance, which is not exclusive to ESG strategies but nonetheless represents one of the three main aspects that ESG strategies focus on, Gompers, Ishii, and Metrick (2003) find a substantial outperformance of more than 8% per annum for firms with the best corporate governance ratings against those with the worst corporate governance ratings. It has also been empirically ascertained that “Best-In-Class (BIC) strategies, which invest in the firms with the best ESG ratings in each industry instead of shunning entire industries, tend to perform better than ESG investment strategies that exclude complete industries based on negative screening”. This comes in spite of the fact that the BIC approach leads to fewer stocks in the portfolio with respect to the market universe, and hence in theory reduces diversification, which normally should detract from performance. It appears that the disadvantage of less diversification is compensated by the lower firm-specific risk of ESG stocks.

The results in Figure 3 show that ESG criteria have substantial risk reduction opportunities. For each of five predetermined environmental responsibility criteria, the best-rated portfolio has by far the lowest worst-case risk despite it usually consisting of far fewer stocks than the alternative portfolios. This result is economically very meaningful (between 200 and 1,000 basis points) and is not driven by a lower systematic risk of the best-rated portfolios. Hence, sophisticated ESG investment strategies seem to have strong downside risk management potential – and thus the potential to deliver superior risk-adjusted returns.

Another study has investigated the comparative financial performance of 80 investment funds from seven European countries between 1996 and 1998, half of them selecting securities according to ethical criteria. The findings show that ethical funds are less risky as measured by volatility of returns and fund “beta” (performance of the fund relative to the overall market) than their non-ethical counterparts, suggesting that ESG criteria are especially valuable for risk-averse investors.

Since risks are the essential performance driver in the fixed-income space, researchers have investigated whether these ESG-induced risk reductions are also beneficial in relation to fixed-income products. Indeed, the researchers Bauer and Hann find that better environmental responsibility and employee relations ratings appear to lead to a lower cost of debt and higher credit ratings (Bauer et al., 2009, Bauer and Hann, 2010). Oikonomou, Brooks, and Pavelin (2011) further extend this research stream and find that ESG criteria are more generally negatively associated with bond spreads. They also show that better ESG ratings are associated with better credit ratings and a lower probability of being rated with a speculative grade. They observe these relationships to be more pronounced for longer-term bonds than for their shorter-term peers.

All these findings suggest that many companies that fulfill ESG criteria prove to have specific competitive advantages that help them perform well in financial markets in many different ways. In some cases the benefits from having a loyal workforce produce a competitive advantage, in others a focus on optimising environmental impact helps them being more cost-efficient, in other cases yet a particular regard for corporate governance helps avoid taking undue risks that would hurt long-term financial performance, to cite only a few examples. The spectrum is wide, but the point is the same: many investors are concerned that when companies focus on ESG matters, they incur unnecessary costs at best and get distracted from their core business at worst. This is of course a legitimate concern. However, academic studies such as those cited above show that this need not be the case at all. In fact, many companies manage to use a focus on ESG topics to their advantage, proving that non-financial considerations can help produce a positive financial return.

Figure 3: Monthly Returns of MSCI World and Socially Responsible Investment (SRI) Funds Analyzed in the Bull Phase (left) and Bear Phase (right)


Financial Return in %
Financial Return in %

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Franco Modigliani and Merton Miller famously posited that in absence of taxes, bankruptcy costs, agency costs, and asymmetric information, within an efficient market, the value of a firm is unaffected by how that firm is financed. However we all know that, in practice, things are much more complex.

A corporate social study conducted in 2011\(^4\) suggests that overall, good performance is rewarded, whereas corporate social transgressions are penalised respectively through lower performance and higher corporate bond yield spreads.

Similar conclusions can be drawn when focusing on either the bond rating assigned to a specific debt issue or the probability of it being considered an asset of speculative grade. Additional investigation shows that these relationships are more pronounced for bonds with longer maturities and those issues assigned with either high or very low ratings. This study suggests that a firm’s application of CSR principles and practices can reduce corporate exposure to various types of risks (operational risk, market risk, liquidity risk, default risk) and the creation of a sustainable long term competitive advantage.

\(^4\) The Effects of Corporate Social Performance on the Cost of Corporate Debt and Credit Ratings Ioannis Oikonomou, Chris Brooks ICMA Centre, University of Reading, Stephen Pavelin, School of Management, University of Bath, October 2011, ICMA Centre Discussion Papers in Finance DP2011-19

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1) Do firms with more social and environmental strengths have lower credit spreads (lower cost of debt financing) and higher corporate bond ratings (lower default risk)?

2) Do firms with more social and environmental concerns have higher credit spreads (higher cost of debt financing) and lower corporate bond ratings (higher default risk)?

3) Is the impact of corporate social performance on corporate spreads more pronounced in bonds with longer maturities?

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**Evolution of Sustainable Investing**

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Values-Driven (-) Screens

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**Corporate Governance**

> Sustainability
> Responsible Investors
> (Universal Owner)

Environmental, Social and Governance Investing
Risk & Return (+) Screens
Best-in-Class Approach

Evolution of Corporate Social Responsibility & Integrated Reporting

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Bond vs. equity investors’ points of view

The potential losses for a bondholder are the entire amount that has been invested, whereas the potential gains are capped because repayment is limited to coupon and principal, there being no extra coupon in case the borrower does better than expected. Shareholders, on the other hand, have an unlimited theoretical upside. So shareholders have a greater incentive to push managers towards undertaking riskier (and potentially more rewarding) projects, while bondholders would like to avoid significant risks and ensure their fixed contractual claims on the firm’s present and future cash flows. That is why it can be argued that it is even more crucially important for bondholders to be able to distinguish good managers from bad ones when choosing where to allocate their wealth and so the “good management” reasoning may have a greater observable impact in the bond market. The researchers have put three hypotheses to the test:

1) “Firms with more social and environmental strengths have lower credit spreads (lower cost of debt financing) and higher corporate bond ratings (lower default risk)”.

2) “Firms with more social and environmental concerns have higher credit spreads (higher cost of debt financing) and lower corporate bond ratings (higher default risk)”.

3) “The impact of corporate social performance on corporate spreads is more pronounced in bonds with longer maturities”.

Based on an extensive dataset comprising more than 3,000 bonds issued by 742 firms operating in 17 different industries, it emerged that support for local communities, higher levels of marketed product safety and quality characteristics, as well as avoidance of controversies regarding the firm’s workforce can materially reduce the risk premium associated with corporate bonds and thus decrease the cost of corporate debt. The authors of the study found that “these findings are fairly robust across sectors, irrespective of the systematic variation of the operational risks relevant to each of them”. Thus, the researchers have been able to prove that “there is a financial reward for good ESG practices that is reflected in lower bond spreads. The same conclusions can be drawn when focusing on either the bond rating assigned to a specific debt issue or the probability of it being considered to be of speculative grade. It appears that higher levels of corporate social performance can lead to improved credit quality and lower perceived credit risk”.

ESG and Value at Risk

A study that measured the Value-at-Risk (VaR) of a sample of 1091 international stocks during the period 2007-2012 found that corporate social responsibility (CSR) had an impact on the risk dynamic of stock returns and risk predictability. The researchers found that “good corporate governance scores reduce the downside risk level (measured by VaR), dampen the effect of negative returns on volatility by reducing the leverage effect and by softening the volatility movements”.

The authors of this study point out that “theoretically, due to better balancing the interests of the various stakeholders, greater reputation and less information asymmetry, companies with higher CSR standards should be less risky and more resilient in times of crisis”. Indeed, the study showed that “the impact of reputation on financial performance is mainly due to insulation from negative financial performance”. They identified corporate governance as being the most relevant ESG dimension in relation to company risk because it has a direct impact on the risk level and the risk characteristics of companies. More specifically, their study concluded that good corporate governance “reduces the downside risk levels (measured by VaR), dampens the effect of negative returns on volatility and softens volatility movements”.

In a broader perspective, ESG investments may reduce portfolio risk thanks to superior risk-adjusted returns, as shown in Figure 3.

ESG in emerging and frontier markets

A study amongst 3,670 firms in a sample period from 2006-2014 shows that CSR initiatives have a particular value-creating ability in environments with less developed capital markets and fewer governance regulations. Indeed, in countries where regulatory institutions are less established, the ESG efforts

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of a single company can make more of a difference compared to peers than in advanced economies with stronger institution environments. In this sense, ESG considerations can become “a tool to overcome these weak environments by interactions with the firm’s environment”. In other words, in countries with institutional voids, firms can easily create value through ESG initiatives that compensate the lack of attention to these factors in the wider institutional, regulatory and economic context.

This is of particular interest to investors in emerging and frontier markets. This study suggests that a portfolio manager operating in markets where institutions are less established and oversight is less strict can add significant value by selecting stocks that observe certain ESG considerations. Therefore, this finding makes a case for active ESG management in markets with less developed institutional frameworks. Over time, we would assume that emerging markets develop their institutional frameworks the way developed market have done. In that case, early adopters of good corporate praxis would find themselves in a privileged position compared to those that had not undertaken efforts in this sense before. This finding also shows that the maximization of shareholder value can go along well with socially and environmentally responsible initiatives.

ESG implications for portfolio transparency

Asset managers generally have a fiduciary duty to its investors to choose securities that best exploit all public information with the final aim of adding incremental performance. Enhanced due diligence by the asset manager in the portfolio selection is a prerequisite. Financial reporting is and will remain the basis of any investment decision. However, a firm as a going concern can be seen on a broader perspective both in terms of time horizon (with respect to quarterly reports) and implications (on a broader range of stakeholders than the readers of the quarterly reports).

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The idea behind these legislative efforts is to complement financial data with information that goes beyond the financial statements such as human resources management, employee welfare, customer satisfaction as well as a number of environmental indicators.

The reason why non-financial data can add a wealth of information that can help generating outperformance is that financial data are mainly backward looking, and concentrate on a restricted time span, usually a quarter or a fiscal year, whereas non-financial data are mainly forward-looking. In other words, when choosing between two companies in the same industry and similar market capitalisation, other things being equal, non-financial data can tip the scales in favour of one security rather than another. In so doing, the portfolio manager aims to minimise risks such as reputational damage, regulatory change and litigation. Finally, from a cross-industry perspective, an integrated investment framework from which to extract non-financial data gives asset managers a more thorough understanding of the businesses they are investing in.

If we look back at the evolution of sustainable investing, we have moved from a negative (i.e. restrictive) approach based on values and beliefs to a more sophisticated ESG approach that integrates financial and non-financial data, analysing firms from a stakeholder perspective that complements the viewpoint of the shareholder.

A meta study published in 2014 analysed the results of 40 years of studies on ESG and its impact on financial returns. The majority of research papers found that ESG funds did not suffer from any loss of performance compared to conventional investments, while a wide set of studies finds ESG funds to outperform their non-ESG peers. A small minority of cases found a negative impact of ESG criteria on performance. At a single company level, the relationship between a company’s financial performance and its efforts to implement socially responsible behaviour in their company points to a positive effect between ESG activities implemented by a company and its financial results.

In conclusion, Oscar Wilde famously said that a cynic “knows the price of everything and the value of nothing”, while a sentimentalist “sees an absurd value in everything”. The evidence in favour of sustainable investing is compelling, and is not tied to sentiment: not only can the performance be improved by expanding the spectrum of analysis to non-financial data, but risk management may also benefit thanks to a reduction in losses arising from corporate scandals, mismanagement and legal costs. In this sense, a Best-In-Class approach in an integrated investment analysis should be able to capture superior risk-adjusted returns and benefit investors and firms alike.

ESG & Corporate Financial Performance - Mapping The Global Landscape

In an extensive study undertaken in December 2015, Deutsche Asset Management and the University of Hamburg investigate whether integrating ESG into the investment process has had a positive effect on corporate financial performance (CFP), whether the effect...
was stable over time, how a link between ESG and CFP differs across regions and asset classes and whether any specific sub-category of E (Environmental), S (Social) or G (Governance) had a dominant influence on CFP. The researchers examined around 2,250 academic studies conducted between the 1970s and 2016, aided by data of 60 review studies in what, according to the researchers, “represents the most extensive review of academic literature relating to ESG and CFP ever undertaken”.

The results showed that only 10% of the studies displayed a negative ESG-CFP relationship, while an overwhelming share of studies found positive results, of which 47.9% in vote-count studies and 62.6% in meta-studies yield positive findings. “From an asset class perspective, studies have typically been focused on equity and equity-linked mutual funds and indices”, the researchers find. But they add that “two important findings stand out, namely the strong positive correlation between ESG and CFP for bonds and real estate, and the weaker correlation between ESG and CFP for mutual funds and indices”.

The study also shows that mixing various ESG approaches together washes out the potential for outperformance: less focused strategies tend to produce relatively lower returns. “However, among the individual categories, governance exhibited the highest number of positive responses. In terms of the correlation between ESG and CFP over time, the academic studies show that this has remained relatively constant since the mid-1990s”. In other words, the increase in assets invested according to ESG criteria has not reduced ESG alpha.

However, when it comes to mutual funds, these studies show that in most cases where ESG-oriented funds have underperformed their non-ESG peers, this was a result of higher fees, rather than a flaw in the strategies or the investment universe of these funds. Therefore, it would appear sufficient to select ESG funds that do not charge above-average fees to overcome this problem.

Figure 6:
Tracking the link between ESG & CFP across various regions (vote-count sample).
The blue areas indicate cases where ESG considerations have had a positive effect on performance in the empirical study cited below, while the green areas show cases where ESG considerations have had a negative effect on performance. The size of the blue and green spaces shows how many positive and negative cases have been observed in the study.
In conclusion, both the literature and the empirical evidence point to a highly diversified realm of ESG investment, each with their own risk and return profiles, and of course with their own different impact on society. Therefore generalizations are hard to make, but it is evident that the more sophisticated ESG approaches of recent years have, on average, little or nothing to envy their non-ESG peers in terms of financial performance. In several cases, ESG strategies outperform similar non-ESG portfolio, often for reasons to do with risk avoidance and security selection. In other words, non-financial selection criteria end up having a financial impact. This is possibly the main lesson to draw from this study and it means that ESG considerations can not only help achieve specific desirable social or environmental goals, but also help make more informed decisions from a purely financial perspective. For investors this means that it is not in their own financial interest to dismiss ESG investments as less financially appealing than conventional investments. Rather, a great variety of ESG strategies have proven to be able to financial expectations as well as ESG considerations, during booms and busts and over several decades. We therefore expect the ESG theme as one may call it to become more prominent among investors in the future. In other words, ESG investing has come of age.
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Glossary

CSR stands for Corporate Social Responsibility

ESG investing pursues environmental, social and corporate governance goals.

The Financial Stability Board is an international body that monitors and makes recommendations about the global financial system.

The International Integrated Reporting Council (IIRC) is a global coalition of regulators, investors, companies, standard setters, the accounting profession and NGOs. The coalition is promoting communication about value creation as the next step in the evolution of corporate reporting.

SRI stands for Socially Responsible Investments
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