

ESG & Corporate Financial Performance: Mapping the global landscape

December 2015

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Foreword by Fiona Reynolds, managing director, Principles for Responsible Investment (PRI)

Research showing that investments strategies which consider environmental, social and governance (ESG) factors lead to better performance over the long-term is finally making headway with mainstream investors. In the past year, we have seen studies from Arabesque Asset Management/Oxford University; MSCI; and Harvard University, to name a few, all of which support this conclusion. So PRI welcomes this new meta-study—ESG & Corporate Financial Performance: Mapping the global landscape—from researchers at the University of Hamburg and Deutsche Asset & Wealth Management, the largest study of its kind to date, examining ESG and corporate financial performance (CFP) across more than 2,000 academic studies published since 1970, and concluding that there is a positive correlation between ESG strategies and strong financial performance.

The PRI was pleased to support the development of this white paper and gratified to see a definitive study about ESG and performance that looked into the data across different asset classes and geographics.

The study uncovered a number of interesting findings, most notably the fact that 62.6% of studies examined show a positive correlation between looking at ESG factors and financial performance, and that opportunities to look at ESG abound in North America and Emerging Markets. The issue of fiduciary duty, which has been used by fund managers in the US and elsewhere as a reason not to look at ESG has finally found some clarity via the recent US Department of Labour announcement, which said that consideration of ESG factors in investment decisions does not violate a pension plan sponsor's fiduciary duty and that such factors can have financial benefits in addition to social benefits. This study clearly supports this assessment.

Another key finding was that Governance issues seem to be driving ESG momentum. This makes perfect sense when you consider the reputational and financial damage that many companies have suffered due to a lack of oversight on governance issues. Volkswagen is a recent, stark example. Interestingly, the study found it is more beneficial to apply the E, S and G independently, rather than together, because they have such disparate elements.

Finally, when looking at specific asset classes, bonds and real estate emerged as asset classes in which ESG investing and performance have a strong link. This dovetails with a PRI study released last year—Fixed income and investor guide—which showed that investors in this asset class are increasingly looking at ESG as way to identify risk and new opportunities.

This study is an important contribution to mainstream responsible investing and providing a more definitive answer on ESG-CFP, but clearly, more research is needed to keep moving ESG further into the mainstream. The PRI looks forward to working with finance professionals, academics and other stakeholders to keep illuminating the fact that looking at ESG translates into better governance, better run companies and better returns.



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ESG & Corporate Financial Performance

Mapping The Global Landscape

In a new extensive study, Deutsche Asset & Wealth 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, S or G had a dominant influence on CFP. In this white paper we highlight the main conclusions.

1. Executive Summary

How environmental, social and governance (ESG) criteria affect corporate financial performance (CFP)¹ has been an area of academic and practitioner interest since the early 1970s. However, one of the main difficulties has been to establish a clear picture of the correlation between ESG and CFP. Indeed confidence has been undermined by some studies concluding that incorporating ESG in the investment process has delivered ambiguous, inconclusive or contradictory results.

If the number of empirical studies is a reliable guide, then investor interest in ESG has surged over the past 40 years. Since the early 1970s, around 2,250 academic studies have been published on the link between ESG and CFP 70% of which have been published during the last 15 years. This surge in academic literature also tallies with the growth in assets under management dedicated to ESG investments.

In this white paper, we draw out the main conclusions from a joint Deutsche Asset & Wealth Management and University of Hamburg study. This study examines the entire universe of ESG-CFP academic review studies that have been published since 1970.

The analysis is based on the aggregation of the findings and data of 60 review studies. To the best of our knowledge, this therefore represents the most extensive review of academic literature as it relates to ESG and CFP ever undertaken.

This new study also continues previous work undertaken by Deutsche AWM in June 2012 in the report Sustainable Investing: Establishing Long Term Value and Performance, which concluded that companies with high ratings for ESG and CSR have a lower cost of capital in terms of debt and equity.

The results show that only 10% of the studies display a negative ESG-CFP relationship with an overwhelming share of positive results, of which 47.9% in vote-count studies and 62.6% in meta-studies yield positive findings.

¹ CFP measures are defined as accounting-based performance, market-based performance, operational performance, perceptual performance, growth metrics, risk measures, and the performance of ESG portfolios. Portfolio studies comprise of studies on long-short ESG portfolios and in particular studies on ESG mutual funds and indices.

From an asset class perspective, studies have typically been focused on equity and equity-linked mutual funds and indices. However, two important findings stand out namely the disproportionate positive correlation between ESG and CFP as it relates to non-equity classes such as bonds and real estate and the weak correlation between ESG and CFP for mutual funds and indices.

From a regional perspective, studies show that ESG is particularly effective in North America and Emerging Markets. In terms of the individual E, S and G sub-categories, there did not appear to be a dominating single factor, but rather combinations seemed to reduce the rate of positive results between ESG and CFP.

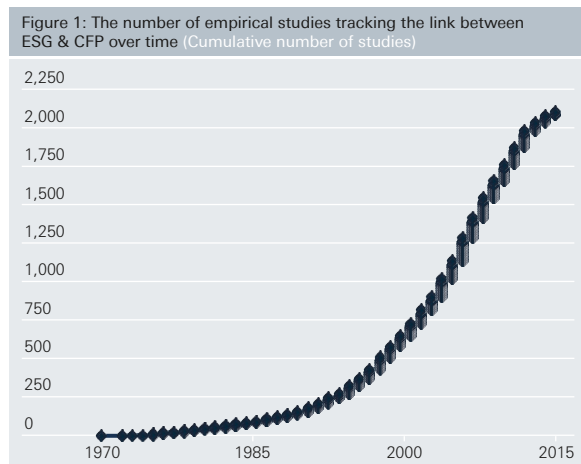
This would seem to suggest that non-focused approaches led to a less compelling argument to deploy ESG. This might suggest that mixing various approaches together washes out the potential of out-performance. However, among the individual categories, governance exhibited the highest number of positive 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. This suggests that the increasing number of signatories to the Carbon Disclosure Project (CDP) or the UN-supported Principles for Responsible Investment and the growing ESG awareness in the investment process has not led to decreasing ESG alpha. Friede, Busch & Bassen find that the business case for ESG investing is empirically well founded such that investing in ESG pays off financially and appears stable over time.

2. Context and parameters of the study

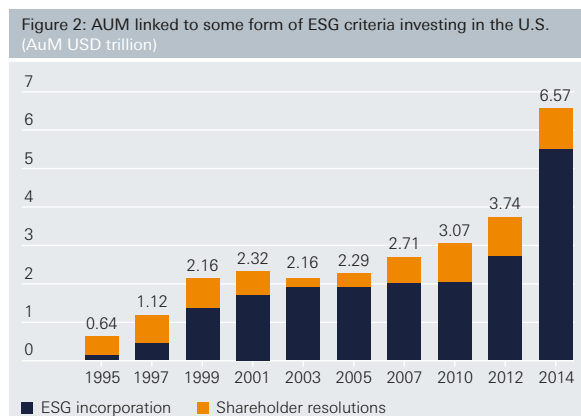
According to Friede, Busch & Bassen (2015) estimates, between 1970 and 2014 there have been a total of 60 review studies with a gross number of 3,718 underlying studies on the topic of ESG and CFP. However, adjusted for overlaps this figure drops to around 2,250 unique primary studies, with the majority of this growth occurring from 2000, [Figure 1](#).

It is this universe of around 2,250 studies that Deutsche Asset & Wealth Management and the University of Hamburg have investigated to assess whether integrating ESG into the investment process has had a positive effect on CFP, whether the effect was stable over time, how the link between ESG and CFP differed across regions and asset classes and to see whether any specific sub-category of E, S or G had a dominant influence on CFP. Friede, Busch & Bassen find that the business case for ESG investing is empirically well founded such that investing in ESG pays financially and appears stable over time.



Source: Friede, Busch, Bassen (December 2015)

This surge in academic literature tallies with the growth in ESG assets under management over this period, [Figure 2](#). Similarly European SRI assets have grown proportionately and constitute approximately two-thirds of global ESG assets.

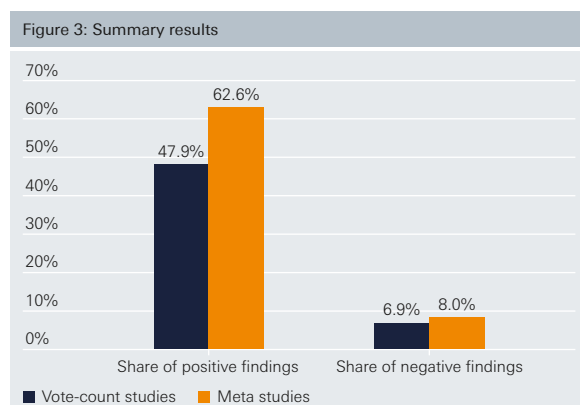


Source: U.S. SIF Foundation (July 2014)

3. The Results

Figure 3 details the overall findings, namely that only 10% of the studies display a negative ESG-CFP relationship with an overwhelming share of positive results, of which 47.9% in vote-count studies and 62.6% in meta-studies yield positive findings. Vote-count studies count the number of primary studies with significant positive, negative, and non-significant results and “votes” the category with the highest share as winner (Light & Smith 1971). These studies provide robust insights, but, are less sophisticated from a statistical point of view. Meta-analyses on the other hand aggregate findings of studies econometrically. They directly import effect sizes and samples sizes of primary studies to compute a summary effect across all primary studies. (Hedges & Olkin 1980; Hunter et al. 1982).

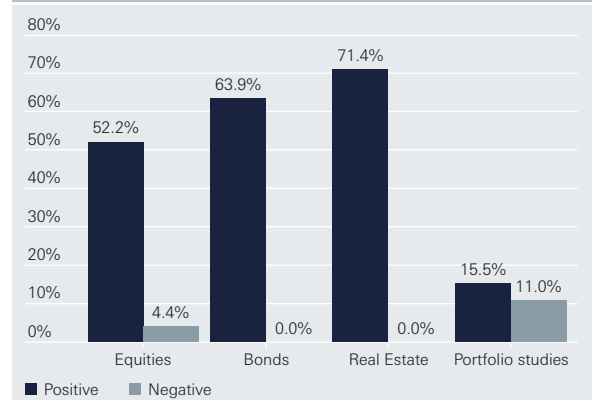
Apart from the summary distribution of results, the data also allows for the examination of performance results across various asset classes. However, historically most of the analysis has been concentrated on the ESG-CFP link in equity and equity linked portfolio studies, which accounted for roughly 90% of the universe of literature published. However, in recent years there has been a slow, but, steady increase in investigating ESG strategies in non-equity asset markets.



Source: Friede, Busch, Bassen (December 2015)

From this analysis, two important findings stand out: first, the weak performance of portfolio studies and second the disproportionate positive response to integrating ESG criteria in non-equity classes and specifically fixed income and real estate, Figure 4. In terms of the high share of positive findings for bonds and real estate, this still represents a relatively young research field for ESG such that between the end of the 1990s and 2014 there were 36 analyzed bond studies and seven real estate studies that were identified.

Figure 4: Tracking the link between ESG & CFP across major asset classes (vote-count sample)



Source: Friede, Busch, Bassen (December 2015)

3.1. ESG and portfolio study performance

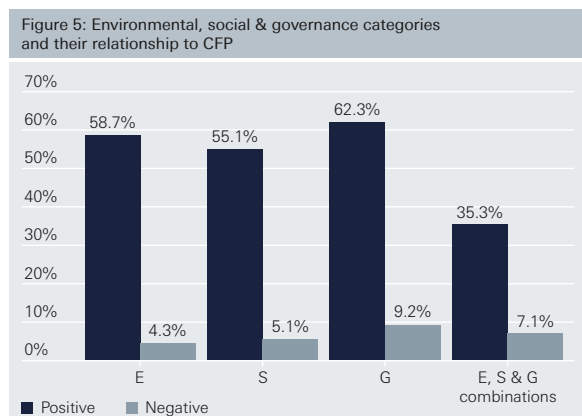
The disappointing results of portfolio studies (consisting of studies on mutual funds, indices and long-short-portfolios) are the potential cradle for the perception bias of investors about ESG investing. Portfolio-based studies in comparison to non-portfolio based studies (firm based) exhibit a weaker relation. This may reflect the fact that many ESG funds follow a mixture of negative and positive ESG screens, which attract a broad array of value-driven and profit seeking investors. As a result, unifying this fund group under one classification may lead to distortions and drown out various overlapping market and non-market factors.

Moreover the authors find that part of the ESG alpha is wiped out as a result of fees, which on average account for 2.5% in the average mutual fund(s) around the world. However, one would be badly advised to transfer the findings in a few dozen portfolio studies to the total sample of more than 2,100 other studies, which suggest the opposite. Moreover, sophisticated investors are more likely to harvest the existing ESG alpha than the average investor (Grossman & Stiglitz 1980, Hoepner 2013, Nagy et al. 2015). At worst, investors in ESG mutual funds could expect to lose nothing compared to conventional fund investments (Hamilton et al. 1993, Humphrey & Tan 2014, Revelli & Viviani (2015).

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3.2. E, S or G impacts

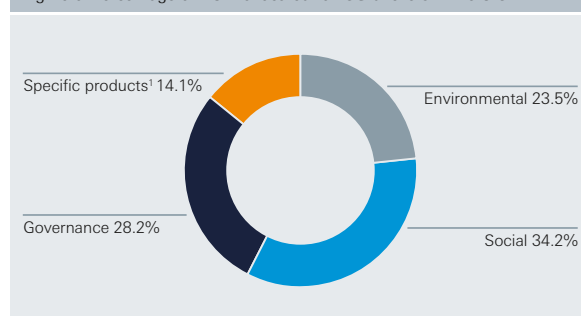
Another area of interest relates to which of the three ESG letters has a dominating influence on CFP. For our sample of vote-count studies with identifiable ESG categories in 644 studies we find relatively similar positive results for E, S and G. However, the highest proportion of positive results occurs in G with 62.3% of all studies delivering a positive correlation, **Figure 5**. In a recent Hermes Investment Management survey of over 100 institutional investors into responsible capitalism, 90% of those surveyed believed fund managers should price in corporate governance risks as a core part of their investment analysis, alongside financial metrics. This reveals the increasing awareness of seemingly extra-financial considerations.



Source: Friede, Busch, Bassen (December 2015)

However, governance-related aspects also exhibited the highest percentage of negative correlations at 9.2%. If the share of negative findings is subtracted from the positives, environmental studies offer the most favourable result with social focused studies coming last. Interestingly, the findings from the 2014 U.S. SIF report, revealed that for money managers funds dedicated solely to social criteria was the largest segment when measured by AUM, **Figure 6**.

Figure 6: Percentage of AUM allocated to ESG buckets in the U.S.



Source: U.S. SIF Foundation (July 2014)

Finally, when examining the review studies which focused on various combinations of ESG only 35.3% of the studies reported positive readings. This seems to suggest that non-focused approaches seem to lead to a less compelling argument to deploy ESG. This might reflect mixing various approaches together washes out the potential of outperformance. It may also reflect the fact that individual studies covering E, S and G independently are more focused and so more relevant.

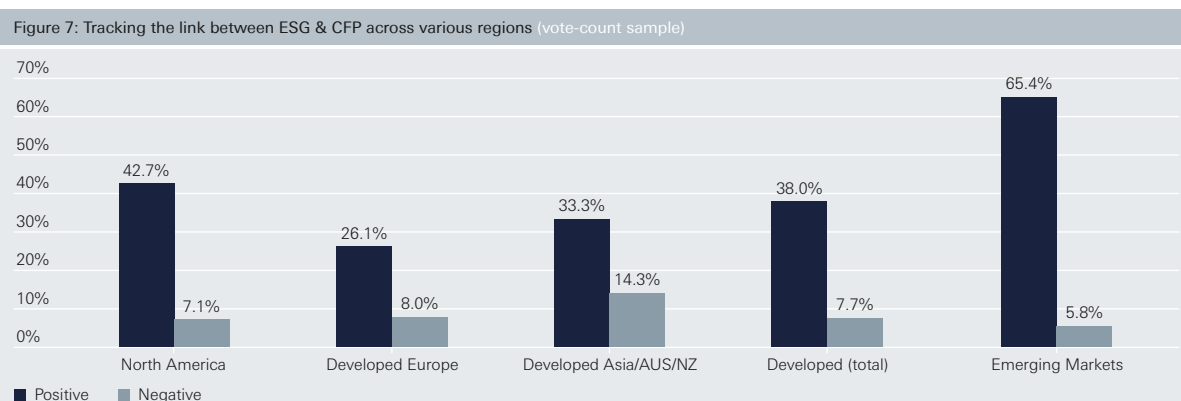
3.3. Regional variations

Some studies have also analyzed the potential differences in the ESG-CFP correlation across different regions. We detected two main patterns based on 402 studies with a disclosed regional identifier. First, developed markets ex-North America exhibited a smaller share of positive returns, with developed Europe exhibiting the worst results (26.1% positive results) compared to 42.7% for North America. Part of the poor results in Europe reflect the fact that a larger number of portfolio studies have been conducted with the European and Asian/Australian sample that potentially biases the data.

However, when omitting all portfolio studies for the developed market samples, the positive ratio for North America increases to 51.5%, and for Europe and Asia/Australia combined to 45.6%. This implies that the previous gap between the two samples shrinks considerably, from 14.9 to 5.9 percentage points, but is nonetheless sizeable.

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¹ Investment vehicles that incorporated criteria related to products of concerns such as alcohol and tobacco



Source: Friede, Busch, Bassen (December 2015)

The next important finding was the strong correlation between ESG and CFP in the group of Emerging Market studies with a 65.4% share of positive outcomes. This is therefore significantly higher than in the developed markets. Excluding the proportion of mutual fund studies, the ratio increases to 70.8%. As a result, based on 52 single studies, solely focused on equity-linked studies, the spread to the developed markets is considerable, [Figure 7](#).

The more compelling results from an emerging market standpoint corresponds well with survey evidence conducted by the PRI which finds that retail investors in emerging markets such as Brazil and South Africa appear to be more engaged on ESG issues than their counterparts in the developed world. This may reflect the greater sensitivity of these economies to climate change, pollution and mining activities. The PRI survey polled pension fund holders in the U.S., U.S., France, Australia, South Africa and Brazil. It revealed that respondents in emerging market countries often had the highest levels of concern when it came to the burning of fossil fuels, the use of child labour, excessive CEO remuneration and companies that made use of tax loopholes.

When asked whether they felt that how a company manages ESG issues provides insight into how the company is run, 67% of respondents in Brazil and 58% of respondents in South Africa said they strongly agreed with this statement. This compared to less than 25% in the U.S., U.K., France and Japan.

Moreover child labour was the number one issue of concern to investors in terms of the companies in the portfolio that might be involved in this practice with this ranked highest in Brazil, South Africa and Australia.

3.4. ESG over time

Another area of investigation in our study was whether the ESG-CFP relationship is stable over time. Theoretically, the growing number of PRI signatories and the presumption that investment strategies are becoming increasingly ESG aware might imply a decreasing ESG alpha that is captured by a diminishing correlation between ESG and CFP over time. This could be in response to the apparent existence of learning effects in capital markets. However, in our sample of 551 primary studies with disclosed correlation factors we found no indications of a learning curve. In fact we consistently found that across all time stamps but especially since the mid-1990s where there has been a period of greater ESG participation and investigation, correlations were stable over time.

4. Conclusions

The materiality of sustainability is undisputed. However, the challenge is to integrate environmental, social and governance criteria into the investment process to harvest the full potential of value-enhancing ESG factors. Despite challenges, we find that this is becoming an increasing area of interest for the investor community. In this article we have presented what we believe is the largest review of academic literatures as it relates to ESG and CFP ever undertaken.

It reveals that ESG opportunities exist in many areas of the market. In particular this holds true for North America and Emerging Markets and also in non-equity classes such as bonds and real estate. The orientation toward long-term responsible investing should therefore be important for all kinds of investors in order to fulfill their fiduciary duties and better align investors' interests with the broader objectives of society.

The full paper can be obtained [here](#).

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