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The full version of this report, including key methods, results and implications of each study, along with the appendices is available at www.mercer.com/ri.
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Introduction

In October 2007, Mercer published Demystifying Responsible Investment Performance, a joint report with the Asset Management Working Group of the United Nations Environment Programme Finance Initiative (AMWG UNEP FI). The report highlighted academic research examining the relationship between environmental, social and corporate governance (ESG) issues and financial performance. The report helped to dispel the preconception that integrating ESG factors into investment analysis and decision making leads to financial underperformance.

Two years later, the debate about ESG factors and investment performance has intensified, due in part to changes in regulatory standards (especially related to climate change and corporate governance), new corporate disclosure guidelines for ESG factors, further reassurance about the link to fiduciary duty,1 and the large number of new signatories to the Principles for Responsible Investment (PRI) initiative, which seeks to integrate ESG factors into investment processes for both asset managers and asset owners. The PRI initiative has also established an academic network that is forging ahead with new research and ideas in this field. Several members of this network offered suggestions for articles to include in this review, and we are grateful for their assistance.

This report presents a summary of some of the new academic studies released since the 2007 AMWG UNEP FI/Mercer joint report. We have reviewed 16 academic studies that focus on the link between E, S or G factors and firm or portfolio performance.

As the 2007 report highlighted, the belief that responsible investment (RI) will automatically limit the investment universe and thereby limit returns is narrow in its focus and conclusion. RI is a broader practice, and a number of tools are available for integrating ESG into the investment process, including voting, engagement, collaboration, negative and positive screening (sometimes referred to as “best in class”) and ESG integration into valuation metrics. A full assessment of the merit of taking a long-term responsible approach to investment needs to consider the relative merit of each approach and the preferences of the beneficiaries that asset owners represent and then balance those considerations against the available evidence on the performance implications of each approach (in terms of risk/return and an improvement to the capital and resource allocation process).

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Some key insights from the studies included in this report are summarized below.

- Of the 16 academic studies reviewed in this report, 10 showed evidence of a positive relationship between ESG factors and financial performance; two found evidence of a negative-neutral relationship; and four reported a neutral association. Pooling these results together with the 2007 report, there are 36 studies in total: 20 studies showing evidence of a positive relationship between ESG factors and financial performance, two showing evidence of a neutral-positive relationship, three showing evidence of a negative-neutral relationship, eight showing evidence of a neutral relationship, and three showing evidence of a negative relationship. Please see Appendix A for an index of all 36 studies combined from the two reports.

- A variety of factors, such as manager skill, investment style and time period, is integral to how ESG factors translate into investment performance; therefore, it is not a "given" that taking ESG factors into account will have a uniform impact on portfolio performance, and we expect significant variation across industries.

- Depending on the sectors studied, results of the academic tests related to ESG materiality also vary significantly. Thus, results at the aggregate (macro) level may be misleading, as the impact of ESG factors often varies across sectors. For example, Jiraporn and Gleason (2007) found an inverse relationship between shareholder rights and leverage for all sectors, except for regulated industries (that is, utilities). The implication is that research and the integration of ESG into investment processes need to be measured and conducted at the disaggregated level, as far as practicable.

- There is evidence to suggest that, globally, corporations are not uniformly disclosing comprehensive information about ESG factors. This has created a need for dependency on specialist ESG research services. Indeed, many of the academic studies also relied on testing the significance of the ESG factors, as compiled by specialist firms. While this is a natural part of the evolution of new skills in the industry, over the long run comparable and reliable reporting standards on ESG factors will form an important part of mainstreaming ESG integration. The uniform public disclosure of corporate ESG data will also assist academics and researchers in considering ESG an investment driver that affects returns.

- Finally, most of the studies to date focus on the link between ESG and listed equity investments, with little research on other asset classes. This is beginning to change, however, and we have made an effort to include studies on microfinance in this report. Note that forthcoming papers from researchers such as Daniel Hann and Nils Kok will focus on the link between ESG and fixed income and on the link between sustainability and property values.
Overview of academic studies

As in the 2007 AMWG UNEP FI/Mercer joint report, the studies were selected on the basis of meeting one or all of the following criteria:

- They are published in peer-reviewed academic journals or working papers that have applied and extended traditional finance theory to study the effect of E, S and/or G factors on portfolio performance.
- They provide a good representation of different ESG factors under review, with variation in terms of the research methods used and the country/region of analysis.
- They are influential work in terms of widening the application of traditional finance theory to extra-financial factors, with some having been awarded prizes in recognition of their contribution and/or frequently referenced in academic journals and industry reports.

The framework used to present the key methods, results and implications of each study is presented below.

**Narrative analysis**
- Full academic reference
- Summary
- Hypothesis
- Results

**Tabular analysis**
- Target audience
- Region
- Period of study
- Financial performance measure(s) – broad
- Financial performance measure(s) – specific
- E, S or G measure(s) – broad
- E, S or G measure(s) – specific
- Unit of measurement
- Number of units
- Source of ESG data
- RI approach
The articles reviewed in this report are presented in the table below:

As interest in RI among individual and institutional investors has grown in recent decades, the breadth and depth of academic research measuring the relationship of RI with financial performance have expanded. Of the 16 academic studies reviewed in this report, 10 showed evidence of a positive relationship between ESG factors and financial performance; two found a negative-neutral relationship; and four reported a neutral association. An overview of the studies for each of the E, S and G factors is presented below:

**Environmental factors**

Four academic studies of note measured the impact of environmental factors on financial performance. Olsson (2007) found that the environmental “riskiness” of portfolios has no statistically significant impact on returns. In contrast, Konar and Cohen (2001) found a significant positive relationship between environmental performance and the intangible asset value of publicly traded firms in the S&P 500. Semenova and Hassel (2008) found that the effect of environmental performance on market value is stronger in low-risk industries than in high-risk industries. Cunningham et al (2007) examined the issue from a slightly different angle, looking at the provision of environmental information in financial research reports. Their study found that only 35 percent of financial analysts’ reports in Europe and North America contained environmental information and that the degree of research intensity varied across sectors.

- Overall, this group of studies suggests that the materiality of environmental factors varies across industries and that the financial community assigns more importance to evaluating how environmental factors affect firm value in high-environmental-risk industries than in lower-risk industries. This demonstrates the importance of considering the link between environmental factors and firm/portfolio performance at the disaggregated level.

**Social factors**

Four academic studies measured the impact of social factors on financial performance. Richard et al (2007) approached the link between social factors and financial performance by looking specifically at racial diversity. They found that this social factor can positively affect firms’ intermediate and long-term financial performance. Edmans (2008) showed that employee satisfaction is positively correlated with stock performance, that the market may not fully value intangibles, and that certain investment screens linked to employee satisfaction may lead to outperformance. Finally, looking at social factors through the lens of microfinance, Galema et al (2008) and Oehri and Faush (2008) concluded that adding microfinance investment funds to a portfolio can improve returns.
Overall, this group of studies suggests that improved social performance of companies in an investment portfolio can lead to improved financial returns. The evidence concerning microfinance is favorable, bearing in mind the caveat that the time series for analysis is still relatively short.

**Corporate governance factors**

Four academic studies measured the impact of governance factors on financial performance. Ammann et al (2009) concluded that, for the average firm in their sample, the costs of implementing corporate governance mechanisms were lower than the benefits. Three of the governance studies examined in this report found that engagement is positively related to financial health or financial performance. Jiraporn and Gleason (2007) concluded that restricted shareholder rights are related to higher debt ratios in most industries. Similarly, Perino (2006) found a correlation between the participation of public pension funds and positive results in terms of settlement outcomes, attorney effort, or attorneys’ fee requests or awards. The study by Klein and Zur (2006) found that the market believes that activism creates shareholder value, that other activists are marginally more successful in their aggressive activism campaigns than hedge funds, and that the market is able to differentiate between overall successful and unsuccessful campaigns.

Overall, this group of studies suggests that strong corporate governance – and promoting this through engagement – has a positive impact on firm and portfolio performance.

In addition to these studies that focus on specific ESG factors, this report reviewed some studies that test the relationship of broad ESG performance, social screening and financial performance. An overview of these studies is presented below:

**ESG factors**

At a broad level, Lee et al (2007) examined the relative performance and characteristics of leading and lagging corporate sustainability firms on a global basis. Although the study’s market-based findings suggested a negative link between corporate sustainability performance and corporate financial performance, their accounting tests indicated no significant difference in performance. The authors did find that leading sustainability firms have lower total risk (standard deviation) than lagging firms; thus, they suggested that lower idiosyncratic risks associated with leading sustainability firms explained the lower returns.

**Social screening**

Many academic studies to date have focused on measuring the impact of screening out “sin” stocks (for example, tobacco, arms, etc.) on portfolio performance. These studies have found, for the most part, either neutral or positive effects. In this report, we show that Stenström and Thorell (2007) found positive support for social screening, demonstrating that social screening can add value to portfolios. Cortez et al (2009) found that socially responsible funds may not differ so greatly from conventional funds in terms of securities selected, but concluded that European funds can add social screens to their investment choices without compromising financial performance. Galema et al (2008) found a positive relationship between social screening and financial performance and concluded that social screening affects stock returns by lowering firm book-to-market ratios and not by generating positive alpha in a linear regression model.

This report made an effort to compile some of the latest research on ESG materiality for firm and portfolio performance, focusing particularly on thematic E, S or G impacts more so than the impact of negative screening. We have shown that the results are leaning in favor of the value-added proposition of ESG integration, and we are encouraged to see more research considering the impacts across different asset classes (beyond equities) and the effects at the disaggregated level (such as sector impacts).
We will continue to follow the growing body of academic and industry research in this important field. In addition, we support further efforts to evolve education standards and textbook content, both at the professional level for those in the finance industry (such as CFA qualifications) and in relevant academic degree programs, so that the investment managers of the future are well-equipped to integrate ESG factors into their core activities.
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