WEIGHING THE EVIDENCE: ESG AND EQUITY RETURNS

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EXECUTIVE SUMMARY

Over 2,000 research articles from both academics and financial professionals have analyzed the link between companies' environmental, social and governance-related (ESG) characteristics and their financial risk and performance (Friede et al., 2015). While Friede found little research concluding that using ESG criteria has impaired investment performance, there has also been no clear consensus on whether ESG has improved returns on a risk-adjusted basis. Why the lack of consensus? We find that many of the ESG investing methodologies used in studies were designed to meet social or ethical values and not financial objectives. To understand the link between companies' ESG characteristics and their financial risk and performance, it is important to evaluate only the studies that use ESG methodologies specifically designed to identify financially relevant issues, such as MSCI ESG Ratings.

Consolidating findings from various academic and industry researchers, we observe there is significant evidence that the application of MSCI ESG Ratings may have helped reduce systematic and stock-specific tail risks in investment portfolios. This result makes sense, as the MSCI ESG Rating process focuses on 1) identifying risks that can affect enterprise value and 2) assessing the quality of management's control of these risks. As discussed in Giese (2019a), we found that high-ESG-rated companies were more profitable, paid higher dividends and showed slightly higher valuation levels, when we controlled for other financial factors over a 10-year period between May 2007 and November 2017.[1] The most difficult question is whether ESG ratings, in general, have been linked to a risk premium like those of traditional financial factors such as quality, value or momentum. ESG ratings have a much shorter history than traditional factors, meaning the statistical confidence level is fairly low compared to that of common factors. A longer time series is needed to authoritatively address this question. However, we observed some evidence that ESG rating changes (ESG momentum) showed the strongest positive performance of any ESG characteristic and was more consistent over time (Giese, 2018, 2019a). Companies with higher ESG ratings, on average, had lower frequency of stock-specific risks, avoiding large drawdowns, and thus representing a "risk-mitigation premium."

WHY THE JURY APPEARS TO BE OUT

More than 2,000 research papers have been written by academics and financial professionals about the pros and cons of investing with ESG criteria, according to one study (Friede et al., 2015). The authors found only a few papers showed that ESG had impaired performance, and no clear consensus has emerged as to whether ESG has enhanced riskadjusted returns. There are (at least) three reasons for this lack of consensus.

1. Most important, different researchers have studied different ESG methodologies, some of which were not primarily designed to identify financially relevant issues. Broadly speaking, we have identified three types of methodologies that use ESG data:

a. Values-based exclusions: Typically, portfolios screen out companies involved in certain business activities, such as the production and distribution of alcohol, tobacco or weapons. These screens, which dominated ESG investing in the 1990s, aim to align portfolios with investors' individual values or preferences and are often referred to as socially responsible investing (SRI), or ethical investing. This contrasts with Friede, who dealt with actual performance, as opposed to expected performance. Research on these exclusionary screens focused on the reduced investment opportunity set that was expected to result in weaker risk-adjusted returns. At best, researchers found that SRI investors could anticipate similar financial results to investing in the full market. This study, however, did not take into account the difference between socially and financially driven methodologies.

b. Impact screens: While values-based screens aim to reduce exposure to companies that impose costs on society at large (known as negative externalities), impact screens aim to identify companies that can drive positive social change — e.g., companies in clean technologies. Impact portfolios are typically fairly concentrated and can have strong active factor exposures and significant exposures to individual stocks that may not relate to their impact theme (Berube et al., 2014).

c. ESG ratings: While values-based screens and positive impact screens focus on what type of products and services companies produce, ESG ratings typically focus on how ESG risks and opportunities are incorporated into a company's business model. This analysis is typically based on a broad range of E-, S- and G-related indicators, such as carbon footprint, water usage, data security, human-capital development, executive pay and board structure. Within ESG ratings methodologies, there are two key approaches — one that relates to the rater's subjective standards on what constitutes "good" ESG and one that focuses on capturing financial relevancy:

i. Preference-based ESG ratings: The different ESG indicators are aggregated using a scorecard where the weights represent the preferences, based on norms or standards set by the rater. The resulting ESG score has no direct economic meaning, since it is based on a weighted sum of very different indicators, such as carbon emissions and gender diversity. However, the scorecard creates a measure that allows the rater to rank companies using this normative scale of what constitutes "good" or "bad" ESG.

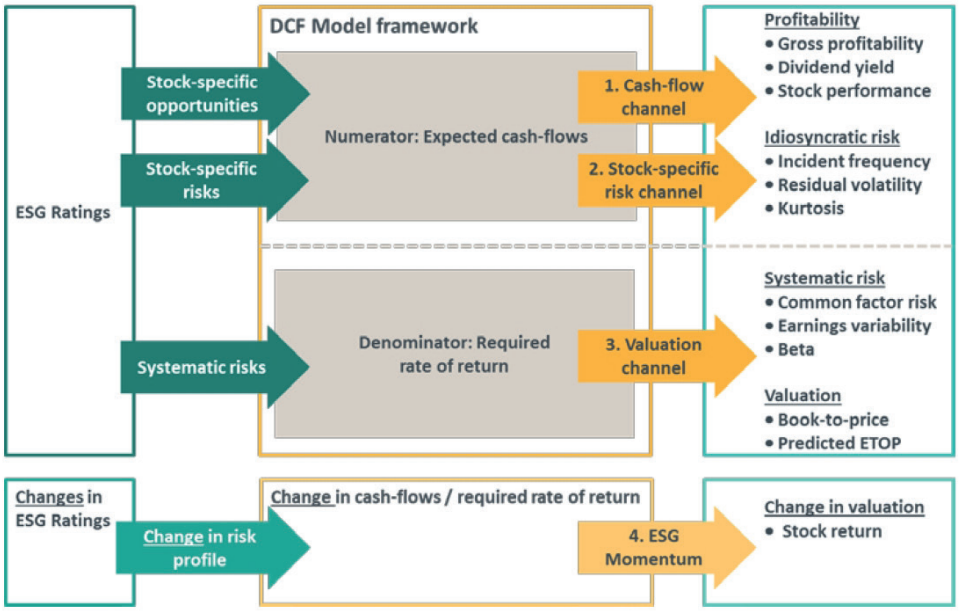
ii. Financial-model-based ESG ratings: To create ESG ratings that may serve as a financial risk indicator in portfolio construction, a model is required that selects and weights ESG indicators based on an economic rationale. For instance, MSCI ESG Ratings translate ESG risk issues for a given industry into a common scale. Specifically, for each ESG risk indicator, MSCI ESG Research assesses the extent that this type of risk may impact future earnings or the assets of the company. Some researchers have assessed only one aspect of ESG.

2. For instance, some researchers (e.g., Breedt et al., 2018, and Pollard et al., 2018, and earlier research from MSCI) have searched for an ESG factor premium and neglected other potentially stronger economic transmission channels, such as the identification of company-specific risks. Giese et al. (2019a) emphasized the need for a holistic approach by analyzing the impact of ESG ratings on a variety of risk and performance indicators following different systematic and stock-specific transmission channels (see Exhibit 1). The authors also provided an economic explanation for how ESG characteristics led to a financial impact in each of the proposed channels.

3. Some researchers, including some at MSCI, have performed backtests or correlation studies, which typically depended on a given timeframe and investment universe and could not provide evidence for a causal relationship between ESG ratings and performance. Therefore, Giese et al. (2019a) emphasized the need to test ESG ratings within an economic model that allows for an assessment of causality.

In brief, of the various ESG investment methodologies available, only ESG ratings based on a financial model are designed to identify potential ESG-related financially relevant risks. Much research has been focused on ESG methodologies — such as exclusionary screens or preference-based ESG ratings — that are not designed

Exhibit 1: Test of Financial Significance



Source: Giese et al. (2019a)

to improve risk-adjusted returns. It is not surprising that there is a lack of consensus on the value of ESG investing, as many papers focus on strategies where achieving superior financial returns is not the main objective.

WEIGHING NEW EVIDENCE

For most institutional investors, however, obtaining financial benefits from their ESG investments is a key motivation (Eccles et al., 2016). We can categorize research as follows:

· The type of economic transmission (Giese et al., 2019a), which can either be idiosyncratic (company-specific) or systematic (affecting a group of companies in a similar way).

· The financial objectives, which can be related to either risk or performance.

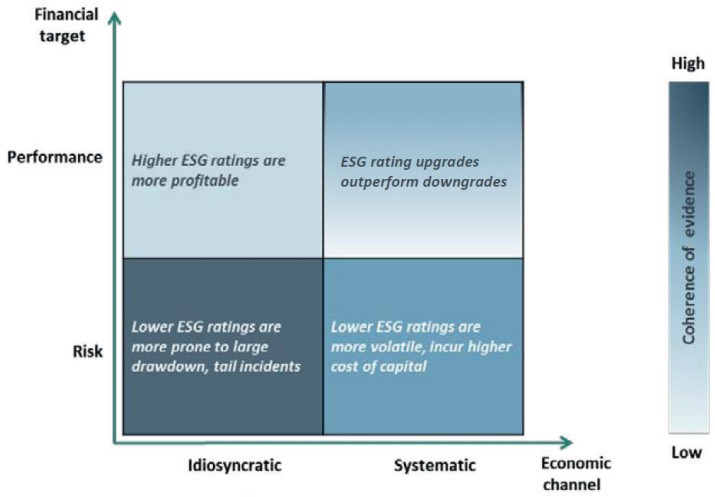
For each of these categories, there is evidence that ESG ratings have been associated with a financial effect. Most research, however, focuses on just one or two of these aspects. To see a fuller picture, we seek to provide a consolidated overview across all four categories, based on MSCI research (Exhibit 2). Darker shades indicate increasing levels of confidence in the economic arguments and statistical results.

Data history has important implications for our findings. In general, historical data series for ESG ratings applied to a global universe were much shorter (e.g., MSCI ESG Ratings have fully covered the universe of MSCI World Index companies since 2007) and of lower frequency (typically annually) compared to other areas of finance — e.g., credit ratings or equity factors — making it challenging for researchers to achieve similar con-

fidence levels. We get more robust results from analyzing idiosyncratic transmission channels, which offer several thousand ESG company ratings per year.

In contrast, systematic transmission channels have a limited time history and thus are likely to offer lower levels of statistical confidence. The level of economic confidence — i.e., being able to explain the economic reasons

Exhibit 2: Coherence of Research Results across Financial Categories



Source: MSCI. Evidence has been strongest for risk reduction, in particular for idiosyncratic risks. Results still vary substantially for systematic performance contribution across different research contributions.

(or economic transmission channels) for why ESG characteristics have a causal effect — is also significant.

We are seeking coherence between economic arguments and their statistical confidence in the data. The economic and empirical evidence for each of the four financial categories can be summarized as follows:

1. Idiosyncratic risk: Companies we analyzed with high MSCI ESG Ratings have historically shown lower financial-drawdown frequencies, while controlling for other factors. For example, the MSCI ESG Leaders Indexes (which target companies with the highest ESGrelated performance in each sector of the parent index) have avoided a number of major ESG-related risk incidents over their live track records. While ESG research cannot predict future incidents, ESG ratings provided an indicator that corresponded with significant differences in the frequency of these incidents happening during the respective study periods. For example, see Jo et al. (2012), Hoepner et al. (2013) and Giese et al. (2019a). These results are intuitive, as companies with high ESG ratings were considered to have had a greater ability to manage and mitigate company-specific risks than lower-ranked sector peers.

2. Systematic risk: Many of the companies with high MSCI ESG Ratings that we examined historically showed lower levels of systematic risk (see Dunn et al., 2015, and Giese et al. 2019b) than companies with poor ESG ratings. For instance, they have shown lower levels of volatility in MSCI's Barra Global Equity Factor Model — Long Term Horizon (GEMLT) while controlling for other factors. In addition, the MSCI ESG Leaders Indexes have shown lower levels of drawdowns among their constituents in crisis situations (Giese et al., 2019b). The economic rationale is again intuitive: Companies with strong ESG characteristics were more resilient when faced with changing market environments, such as fluctuations in financial markets and changes in regulation.

3. Idiosyncratic performance: Companies within the MSCI Index that had high ESG ratings were more profita-

ble and paid higher dividend yields, while controlling for other factors (i.e., size, industry and region) from May 2007 through November 2017 (Giese et al., 2019a). Fatemi et al. (2015) found similar results in their empirical analysis. They explained that stronger ESG characteristics were linked to better business practices, such as attracting more talented employees, achieving better innovation management, creating long-term business plans and incentive plans for management, and providing better customer satisfaction.

4. Systematic performance: It is not clear, however, whether ESG can be considered a new factor that has earned a premium over time. Several researchers have observed that companies with high MSCI ESG Ratings outperformed those with low ratings. They also uncovered clear regional differences: Evidence for ESG characteristics having a positive impact on stock performance was strongest in the emerging markets and Europe, but weaker in the U.S. (see Dunn et al., 2015, Frederiksson et al., 2018, and Giese et al. 2019b). However, some of the positive performance results may have been due to exposures to other equity factors (Kurtz et al., 2011).

Some researchers have tested the existence of an ESG factor premium while controlling for other factors, with varying results: Breedt et al. (2018) found no evidence for ESG ratings' positive or negative performance impact, while Melas et al. (2016) found that MSCI ESG Ratings were a weak factor for explaining risk and performance during the study period when accounting for other factors. However, Pollard et al. (2018) found evidence supporting an ESG premium in their analysis. Again, lack of a long-term time series for ESG ratings may explain this inconclusiveness.

However, empirical research has provided evidence for a systematic performance impact for ESG rating changes (ESG momentum). For example, see Khan et al. (2015), Nagy et al. (2016) and Giese and Nagy (2018). For instance, in the analysis of Giese and Nagy (2018), ESG upgrades outperformed ESG downgrades within the MSCI World Index from 2007 to 2018, while controlling for all other factors in the MSCI GEMLT model. This observation also provides evidence for a causal relationship between ESG characteristics and levels of valuation.

Additional empirical evidence for a causal link between ESG and financial performance was found by researchers analyzing the financial impact of enhanced regulatory-disclosure standards for ESG-related risks (Grewal et al., 2018).

In short, empirical research provided evidence of a risk-reducing effect when ESG ratings are used in portfolio construction. Statistical confidence levels were higher for idiosyncratic risks due to the larger relative sample size that was used.

CONCLUSION

While the bulk of academic and industry studies fail to achieve consensus on whether ESG characteristics have affected performance, in reality most of these studies do not focus on strategies that placed an emphasis on financial returns.

To examine strategies focused on obtaining a financial benefit from ESG ratings, we looked across both the type of economic transmission (idiosyncratic or systematic) and the financial objective (risk or performance). We found that the statistical level of evidence that can be obtained from empirical research was driven by both the strength of the financial characteristics and the available data history. The finding supported with the highest statistical confidence level is the result that ESG characteristics had a positive effect on risk, in particular in mitigating tail risks. There is some evidence that ESG momentum (changes in ESG characteristics) was linked with portfolio performance, but a longer time series is needed to verify the existence of an ESG risk premium.

Please find the references and aditional information in the original document

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About MSCI ESG Research

MSCI ESG Research LLC is the world's largest provider of ESG research and data[1]. We have over 40 years of combined experience in ESG based on legacy firms IRRC, KLD, Innovest and GMI Ratings. We analyze 7,500 companies (11,800 total issuers including subsidiaries) to help institutional investors understand how ESG factors can impact the long-term risk and return profile of their investments.

MSCI Inc. is the world's largest provider of ESG indexes[2] with over 700 ESG Equity and Fixed Income Indexes designed to help institutional investors more effectively benchmark ESG investment performance, issue index-based investment products, as well as manage, measure and report on ESG mandates.

For more information visit our ESG webpage, contact us or join our mailing list.
[1] By number of clients based on public information produced by Sustainalytics, Vigeo/EIRIS and Oekom as of April 2017.
[2] By number of indexes and by assets tracking the indexes compared with publically available information produced by FTSE and S&P Dow Jones as of April 2017