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Causeway's Observations on Environmental, Social, Governance Investing and Ratings

Decades of investment experience have taught Causeway that the share prices of companies that take care to preserve the environment, maintain fair employment standards, and have an above average dedication to shareholders are generally benefitted by these policies. In the past five years, the global asset management industry has given these practices a new name and credence. As a result, we have devoted increased attention to developing a more systematic approach to analyzing the environmental, social, and governance ("ESG") practices of companies in which we seek to invest. Despite growing interest, ESG investing is still in its infancy. The approaches and standards among the data providers developing ratings, the investment managers offering ESG strategies, and the asset owners implementing their own objectives generally lack consistency. The ambiguity makes a thorough evaluation particularly important. We believe Causeway's capabilities spanning both quantitative and fundamental research provide us a unique advantage in evaluating data providers and implementation approaches. These capabilities have also allowed us, we believe, to improve the alpha potential of third-party ESG data by allocating more weight to those topics deemed most material to specific industries.

Investing with a consideration for the ESG practices of companies has been prevalent in Europe for some time. However, its popularity has grown over recent years in the United States and other parts of the world. The United Nations Principles for Responsible Investment (PRI) now has over 1,500 signatories (including Causeway as of September 2016) managing more than $60 trillion in assets.[1] The U.S. SIF Foundation separately estimates that $8.1 trillion invested under professional management in the U.S. apply various ESG criteria in their investment analysis and portfolio selection as of the beginning of 2016, a roughly 70% increase from the $4.8 trillion two years earlier. The $8.1 trillion also represents over 20% of assets managed professionally in the U.S.[2]

Rather than blindly jumping on the ESG bandwagon, an investor contemplating the application of ESG criteria must consider several important questions: What do you intend to accomplish by adding an ESG "lens" to your investment process? More precisely, do you wish to express certain values through your portfolio? Do you believe that investing in stocks with certain ESG characteristics can be a source of active returns and/or lower volatility? A values-based rationale would mean that you as an investor want to be associated with positive characteristics and do not want to support or be associated (as an equity owner) with a company that has undesirable ESG practices. Or perhaps you seek to influence a company to adopt various ESG-friendly practices via proxy voting or shareholder activism. Indeed, a variant of this values-based approach has existed for many years in the form of SRI (socially responsible investing) mandates.

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[1] United Nations. "U.N. Principles for Responsible Investment (PRI) 2016 Annual Report," http://annualreport.unpri.org/PRI_AR-2016.pdf.
[2] U.S. SIF Foundation, "2016 Report on US Sustainable, Responsible and Impact Investing Trends," http://www.ussif.org/files/SIF_Trends_16_Executive_Summary(1).pdf.

The Alpha Potential of ESG

A returns or risk-based rationale raises the hurdle significantly because it requires stocks in an ESG portfolio to produce the same (or higher) shareholder returns, with potentially lower volatility, as the broader market. There are a number of reasons why, in theory, this should be possible. Most of them require that favorable ESG practices eventually positively impact a company's earnings or the variability of those earnings. There may be a wide variety of transmission mechanisms through which this can happen. From an environmental perspective, negative or positive externalities may eventually impact earnings through changes in regulation or a normalization of operating or capital expenditures. One obvious example was BP's Deepwater Horizon drilling rig in the Gulf of Mexico. A culture of aggressive cost savings (positive for short-term earnings) ultimately led to a well blowout that caused loss of life, environmental devastation, and a disaster for shareholders that far eclipsed the initial savings in operating costs and capital expenditures. From a social perspective, companies with exceptional human capital management may attract better talent, and companies with a keener focus on product liability may develop a reputation for higher-quality products and experience higher volumes and/or prices. From a governance perspective, companies with a greater emphasis on corporate behavior and investor relations may be rewarded by their shareholders with a superior valuation. In each of these examples, incorporating ESG practices into a stock selection process should, in theory, produce positive active returns or alpha.

In practice, however, it is ambiguous whether ESG investing presents an alpha opportunity. Though many academic studies have found a positive link between ESG practices and corporate financial performance,[3] the literature seeking to link ESG practices with subsequent stock performance is less conclusive and still emerging. One can argue that improved financial performance may lead to stronger stock price performance, but then again the expectation of a positive ESG impact may already be reflected in the price of a stock. Conversely, some studies argue that corporate investments in ESG issues are "inefficient" allocations of capital and end up harming shareholders. We should not be surprised at the uncertainty around the results, given the significant subjectivity in approaching and analyzing this question. After all, if incorporating ESG characteristics into stock evaluations unequivocally produced positive alphas, corporate management would have consistently devoted more resources to ESG initiatives, and investment managers and asset owners alike would already have well-established, systematic approaches to evaluating such characteristics.

The uncertainty around the alpha potential of ESG analysis likely stems from the source of the ESG data used in each study, how the strategy is implemented, and the investment horizon (and test window) that is considered. We also need to be aware of any country/sector/style-exposure "side effects" that are produced from an ESG portfolio that may impact relative performance. Across many data providers, stocks that score higher along ESG criteria tend to be large, be listed in developed markets, and exhibit lower volatility than low-scoring stocks. It is important to disentangle these effects when evaluating the alpha potential of ESG criteria. An October 2016 study by Cambridge Associates that tracked the performance of MSCI's ESG indices relative to their baseline indices found a slightly negative performance

[3] Gunnar Friede, Timo Busch, and Alexander Bassen, "ESG and financial performance: aggregated evidence from more than 2000 empirical studies," *Journal of Sustainable Finance and Investment* Vol. 5, No. 4 (2015): 210-233.

impact from ESG in the developed markets but a positive impact in emerging markets.[4] The study determined that 46% of the emerging markets' ESG outperformance was driven by sector and style differences. In addressing the remaining outperformance, the authors hypothesized that an underweight to state-owned enterprises ("SOEs"), which generally score poorly on governance issues, in the MSCI Emerging Markets ESG Index aided relative returns given the recent underperformance of SOEs.

Comparison of Data Providers

The choice of data provider alone can be influential to the alpha potential of ESG criteria. Much of the academic literature investigating ESG topics pre-dates the major third-party ESG data vendors, but even the major data providers today differ meaningfully in their assessments due to the inherent subjectivity of evaluating and scoring corporate practices. This makes it imperative for investors to understand the scoring criteria and methodologies employed by the major ESG data vendors. Digging into the details raises many questions. Which specific ESG characteristics should be evaluated? Should scores be country-relative and/or sector-relative? Should a company be penalized for lack of disclosure or rewarded for damaging disclosure? What weights should be assigned to individual issues as scores aggregate to the pillar (E, S, and G) level and ultimately the composite score? And should these weights vary across the universe? Should the score only be based on publicly available disclosure or should information be independently collected and supplemented with primary research? These are just a few of the difficult questions that underlie the lack of standardization in ESG ratings.

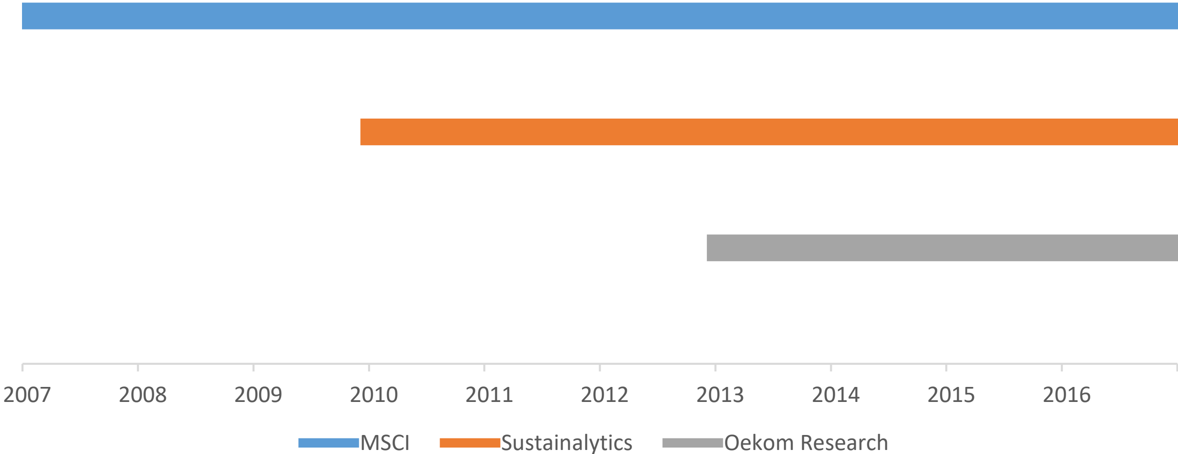
For purposes of brevity, we will examine some basic characteristics of three major ESG data providers — MSCI, Sustainalytics, and Oekom Research — however, the Appendix provides brief descriptions of an expanded list of providers. We begin with their histories. The landscape of ESG data vendors has changed significantly over the past decade with the consolidation of smaller providers through a series of mergers and acquisitions. MSCI ESG Research is one such example. MSCI acquired ISS in 2007, and Innovest and KLD in 2009. MSCI subsequently divested ISS and acquired GMI Ratings in 2014 to replace its governance scores. Sustainalytics, another prominent ESG vendor, was formed in 2009 from a merger of DSR, scoris GmbH, and AIS, three European sustainable ratings agencies. Following its initial formation, it also combined with Jantzi Research and acquired Responsible Research. Oekom Research, originally formed as a spin-off from ökom GmbH, bucks this trend in having grown organically since its inception.

Partially as a result of this merger and acquisition web, historical coverage varies across vendors (see Exhibit 1). Initial coverage begins in 2007 for MSCI, 2010 for Sustainalytics, and 2013 for Oekom Research, and in each case there is a "ramp-up" phase before reaching full coverage.

[4] Cambridge Associates, "The Value of ESG Data: Early Evidence for Emerging Markets Equities," October 2016, https://www.cambridgeassociates.com/research/the-value-of-esg-data-early-evidence-for-emerging-markets-equities.

The history of ESG data is relatively short among all major third-party vendors.

Exhibit 1. History of data availability



Note: Coverage measured in terms of number of constituents of MSCI World Index. Source: MSCI, Sustainalytics, Oekom Research

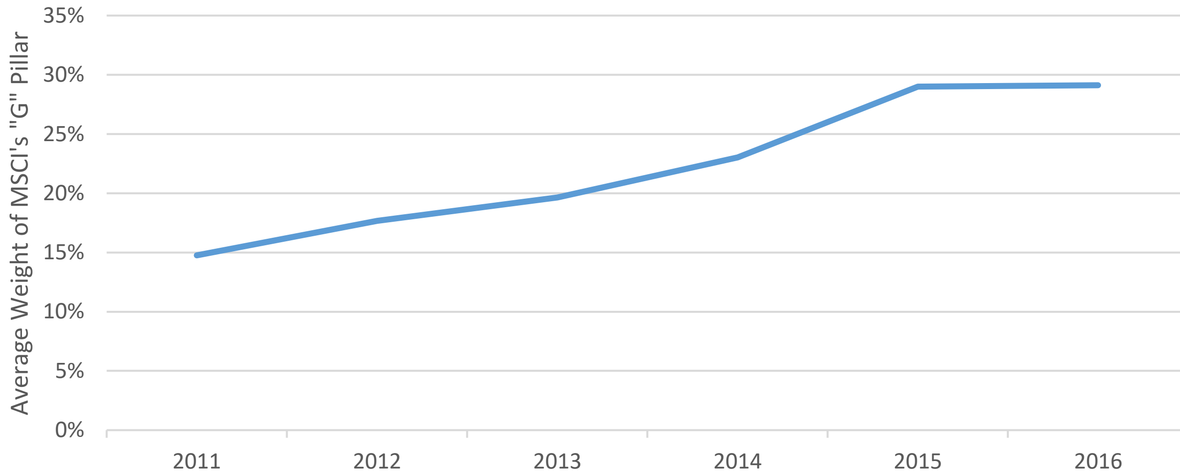
Turning to methodology, differences abound in the approaches employed by data vendors. For starters, investors need to be aware of how each vendor adjusts for differences between industries and sectors. After all, direct comparisons between a coal-fired power plant operator and software provider may or may not be meaningful depending on your use of the data. In addressing this issue, all three vendors start by selecting specific ESG criteria to rate firms based on their unique peer group classifications. However, there are no established rules to guarantee that the best/worst firm in one peer group must be rated the same as the best/worst firm in another. Vendors often apply additional modifications to the ratings produced from this step. MSCI, for example, provides an industry-adjusted version to normalize the raw ESG rating. Oekom Research provides a separate "prime," or best-in-class, flag which takes into account the ESG profile of a firm's industry, with the bar set higher for "prime" in industries with poorer ESG profiles. We are not currently aware of any additional neutralization that Sustainalytics applies to its scores.

As another example of methodological differences, consider governance – the "G" in ESG. Data vendors tend to focus on distinct subjects when assessing governance. MSCI's current framework attempts to capture a variety of signals geared to a traditional investment perspective — such as the existence of poison pills, cross shareholdings, potential for share dilution, and accounting restatements — in addition to other governance indicators related to sustainability, such as corruption and gender diversity. Sustainalytics is primarily concerned with governance to the extent that it relates to sustainability, such as whether or not the company is a signatory to the UN PRI and whether the company employs sustainability performance targets. While Sustainalytics does track certain items related to shareholder friendliness — such as the separation of the Board Chairman and CEO — those items generally seem less extensive compared with MSCI. However, Sustainalytics offers a separate product focused solely on corporate governance from an investment perspective. Oekom Research is similar to Sustainalytics in that its governance rating is more focused on sustainability. In fact, the "G" in its ESG framework is actually categorized as a subcomponent of "S."

MSCI's divestiture of ISS and acquisition of GMI Ratings reduce the comparability between MSCI ESG's governance scores before and after January 2015, the month when MSCI completed these transactions. Also, over the past several years, the weight assigned to the governance pillar in MSCI's framework has steadily increased as can be seen in Exhibit 2.

MSCI has steadily increased the weight of governance within its composite ESG score.

Exhibit 2. MSCI's Governance ("G") Pillar Weight

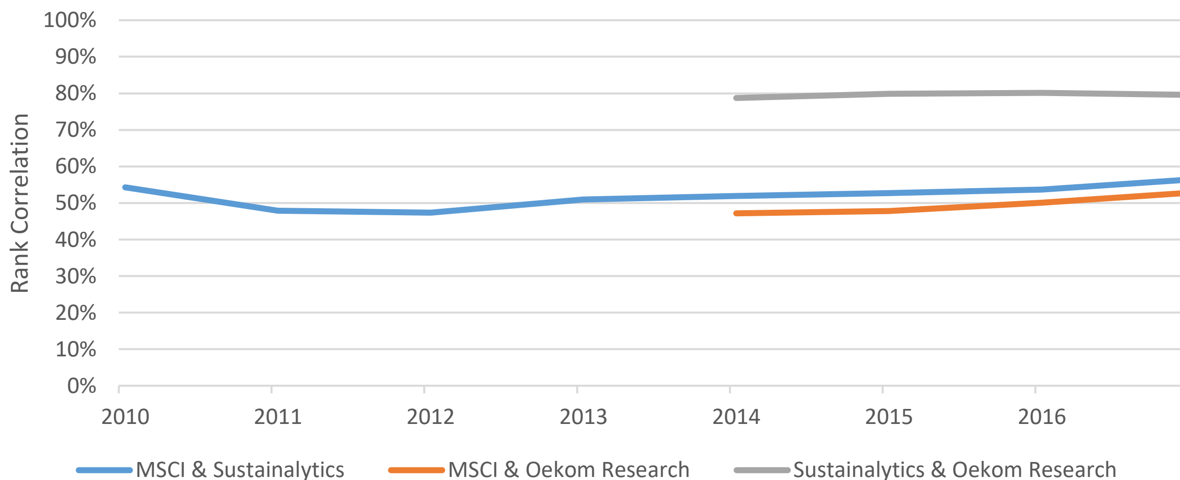


Note: G pillar weight is calculated as the index-weighted average of the MSCI World Index constituents' G pillar weights. Source: MSCI

As a result of these (and many other) methodological differences, in addition to the inherent subjectivity in scoring, assessments can be very different among the major data providers, even for the same company. Exhibit 3 shows the average cross-sectional rank correlation between the common group of stocks rated by MSCI, Sustainalytics, and Oekom. While Sustainalytics and Oekom Research scores are highly correlated, MSCI's scores are much less so, suggesting considerable differences in its approach.

There exists surprisingly high disagreement in ESG assessments for the same company.

Exhibit 3. Cross-sectional rank correlation of ESG scores



Note: Data for Oekom Research begins in 2014, its first full year of operations. ESG scores for MSCI are based on its "industry-adjusted aggregate ESG score," however using the "raw aggregate ESG scores" (not industry-adjusted) produces similar results. Source: MSCI, Sustainalytics, Oekom Research

Another way to evaluate the consistency of scoring among the major data providers is to examine the overlap of stocks that rank in the top and bottom ESG score quintiles as designated by each vendor. Exhibits 4A and 4B illustrate the overlap over time between each pair of vendors. What's interesting here is that there is still a meaningful amount of disagreement among the vendors, even between Sustainalytics and Oekom Research, which were approximately 80% rank correlated in Exhibit 3. One might think that the "best of the best" (or "worst of the worst") stocks along ESG characteristics would be more obvious than those in the middle, but Exhibit 4 shows otherwise.

Little agreement exists even among the "best" and "worst" ESG stocks.

Exhibit 4A. % Overlap in the top quintile of ESG rankings between data providers

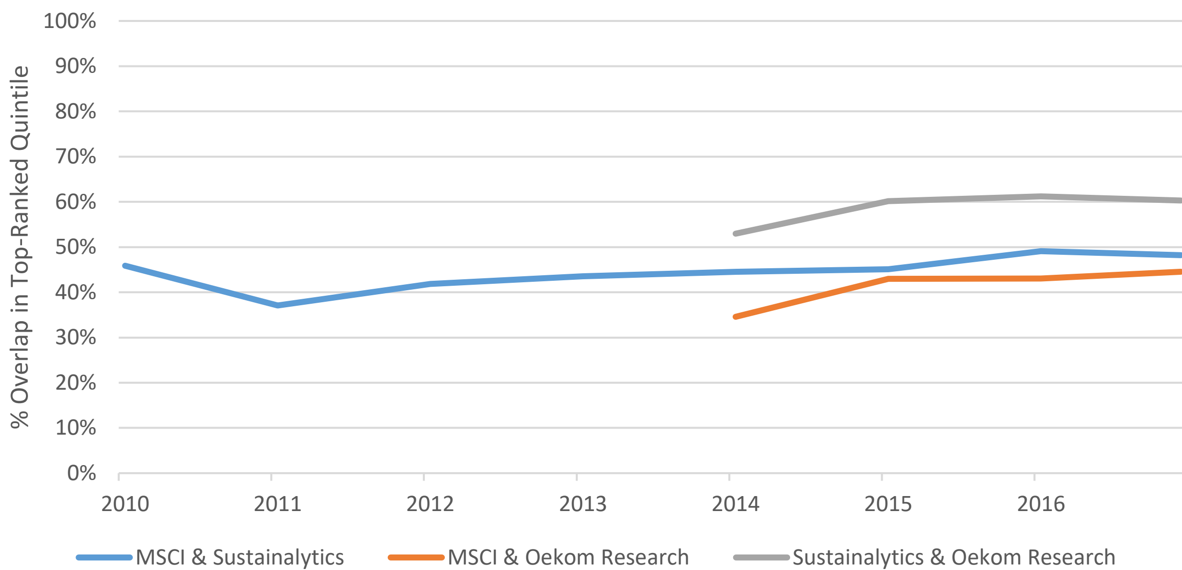
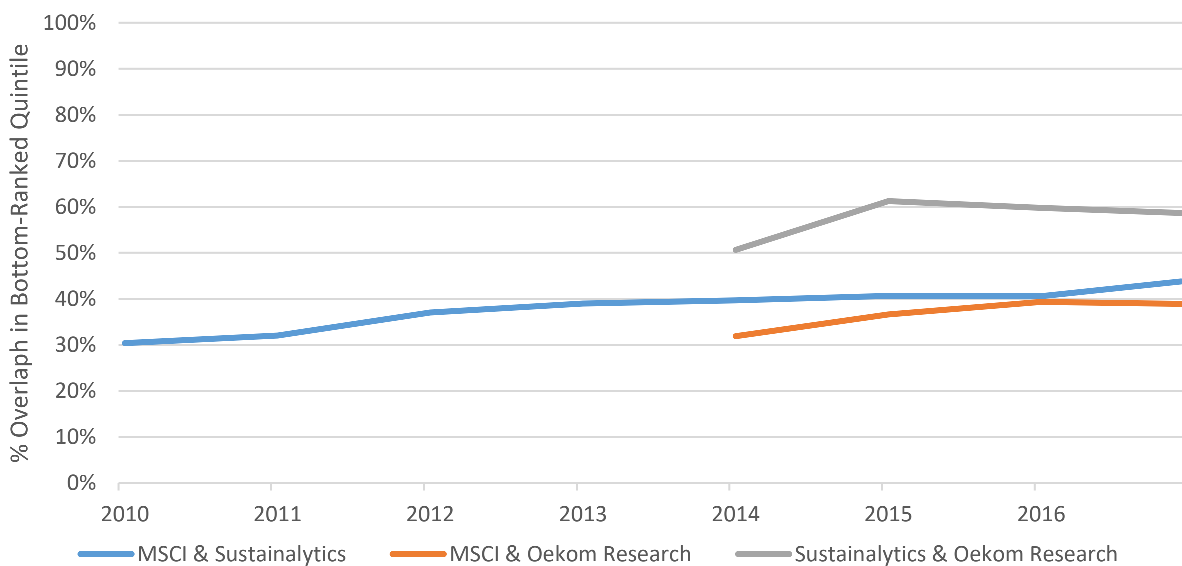


Exhibit 4B. % Overlap in the bottom quintile of ESG rankings between data providers



Note: % overlap based on number of stocks. Data for Oekom Research begins in 2014, its first full year of operations. Source: MSCI, Sustainalytics, Oekom Research

Given the low agreement among data providers as to how ESG-friendly a company is, the choice in data provider alone will be important to your analysis. Investors looking to incorporate an ESG perspective into their process should be aware of discrepancies across data providers so that they understand exactly what is being measured. There exist many more idiosyncrasies across these three ESG data providers, and asset owners should take care to confirm that the characteristics of their selected ESG data provider match their ESG objectives.

Implementation Methodologies

Another major decision, perhaps equally important to the data source, is how to implement an ESG strategy. For those investors who will rely on ESG ratings, this involves two steps. The first step is converting your ESG data into a final score for making comparisons, and the second step is integrating that score into the portfolio construction process.

First, the question of how to convert an ESG assessment into a quantitative score is much more difficult than meets the eye. Most of the major ESG providers publish a periodic composite score for each of the stocks they cover. But as we just described, using a vendor's final ESG score commits you to all of its assumptions, including both its topic-level scores and the weights of those scores as they aggregate to the composite level. In determining the weight of each topic score, it is important to remember that the goal among the data providers is not necessarily to maximize alpha. MSCI, for example, determines weights based on the severity (impact) and acuteness (timeframe for risk/opportunity to materialize) of each topic with respect to its peer group. But is the severity or acuteness of a topic assessed based on its direct impact on long-term corporate performance (and therefore investment value) or on a broader view of how the topic reflects on corporate responsibility? Most would agree that the relative importance of a topic will vary depending on whether it is viewed through the lens of "investment value added" in the first case or "alignment with social values" in the second. The most interesting ESG topics are arguably those that represent an intersection of investment value added and alignment with social values. But how can we determine the relative importance of each issue on this basis?

This brings us to the overarching issue of materiality. In the quest to extract alpha signals from ESG data, analysis of an individual company should be focused on those subsets of ESG issues that are most relevant to that firm. To accomplish this, we need to have some idea of the degree to which a particular sub-topic is material to a company and its industry. Greenhouse gas emissions, water management, and worker safety issues are probably not as relevant for a bank as they are for a miner, whereas customer satisfaction, fair marketing practices, and data security are probably much more important for the bank. One of the first major academic studies focusing on materiality was a 2015 Accounting Review paper authored by Mozaffar Khan (who has subsequently joined Causeway) and two other former Harvard Business School colleagues.[5] To define materiality for each industry, the authors relied on guidance from the Sustainability Accounting Standards Board ("SASB"), a non-profit organization that develops sustainability accounting standards to help publicly-listed companies disclose material factors in compliance with Securities and Exchange Commission requirements. This research found that those companies that scored positively on the most material ESG issues to their industry went on to outperform

[5] Mozaffar Khan, George Serafeim, and Aaron Yoon, "Corporate Sustainability: First Evidence on Materiality," *The Accounting Review* Vol. 91, No. 6 (November 2016): 1,697-1,724.

firms that scored poorly. This paper was significant, we believe, in that it offered a tangible method to improve the alpha potential of third-party ESG data. Weights used by third-party vendors, after all, were not necessarily developed with their alpha potentials in mind. Causeway built on this research in designing its own approach to ESG (more on this shortly).

Second, once you are comfortable with your final company-specific ESG score, how do you go about integrating these assessments into portfolio construction? One simple approach would be to use a negative screen. If a stock's ESG score ranks, for example, in the bottom 10% of the universe, then exclude it completely from the portfolio, regardless of its other attributes. This will likely shift up the portfolio's overall exposure to positive ESG characteristics, but the net effect might be negligible based on the size of the population excluded and the other selection criteria utilized. This approach does not necessarily take a view on the alpha potential of ESG factors either. Another approach would be to directly integrate ESG factors into your alpha model and make ESG factors a criteria in your selection process. Compared to a negative screen, this approach would likely increase a portfolio's "tilt" toward ESG factors. However, it would still not necessarily guarantee a minimum level of exposure depending on the relative weight of ESG factors in the stock selection process. To address this, a third approach could be to include constraints in the optimization process. In other words, use your traditional selection criteria to rank stocks on their relative level of attractiveness. But then, in the final step, which optimizes the alpha potential relative to systematic risks, constrain the final portfolio to exhibit a positive ESG exposure relative to a benchmark. This may be a better way to ensure a positive final tilt to ESG factors, and it avoids reducing the size of the investable universe, preserving stock selection skill. A quantitative capability is particularly valuable in such an approach seeking to maximize alpha relative to systematic risk exposures and ESG constraints.

Causeway's Approach

In designing Causeway's first dedicated ESG strategy, we are seeking to incorporate the lessons and best practices we learned from our research into data providers and implementation. We integrate some form of ESG review in all of our stock selection processes, but our first dedicated ESG strategy will focus on emerging markets. This decision is based on studies — including Cambridge (2016) — showing greater efficacy of ESG factors in emerging markets in addition to the lower average score observed for emerging markets companies on ESG factors and thus, greater room for ESG improvement.

In terms of ESG data, we chose to use MSCI due to its breadth of coverage, relatively long history, and detail in scoring. We believe the detail was imperative in order to leverage the results of Khan et al.'s paper on materiality. In their paper, the authors relied on SASB's assessment of materiality for each industry, demonstrating that one could improve the efficacy of ESG ratings by re-weighting the underlying factors toward those most relevant for a particular industry. We asked ourselves, rather than relying on third-party materiality guidance, why not involve Causeway's fundamental analysts to define which issues were most material? Our portfolio managers and analysts were asked to assign weightings at the MSCI pillar and theme levels to indicate the importance of that particular issue to companies under their coverage. In an analysis we will perform periodically, our fundamental analysts determined unique "theme" weights for each industry (and in some cases, even sub-industries) that are intended to maximize the alpha potential of the data.

With a weighting scheme in place, we can then combine theme-level scores to produce a Causeway version of the aggregate ESG score. We will then merge Causeway's existing quantitative emerging markets alpha model with the new ESG scores. To achieve our desired level of exposure to ESG factors, we will apply a minimum exposure constraint during the optimization process. As mentioned earlier, companies with superior ESG ratings tend to be larger in size. As a result, we anticipate that the new Causeway emerging markets ESG strategy, once launched, will produce relatively low overlap with Causeway's existing emerging markets strategy.

Conclusion

Interest has surged in ESG investing, but this new movement has yet to offer objective and proven standards for measurement and implementation. Many studies have shown a positive relationship between corporate ESG practices and financial performance, but the literature linking ESG characteristics with stock price performance remains inconclusive. Although the data on ESG investing does not universally indicate superior returns compared to broader markets, we believe this may result from poorly conceived data collection and inappropriate ESG factor weighting schemes. Data choices and implementation methodologies undoubtedly impact the alpha opportunity of ESG factors, and we believe that a focus on materiality, in particular, is a critical component to a successful outcome. We suggest an integrated quantitative and fundamental approach to obtain the highest alpha potential from ESG investing.

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Appendix. Comparison of ESG Data Vendors

ESG Vendor	Methodology Characteristics	Other Distinctions
MSCI ESG (Intangible Value Assessment)	• Provides both raw and industry-adjusted ESG scores • Gradually increased G pillar weight over the past several years	• Thorough 152-page methodology paper • Acquired ISS in 2007, Innovest and KLD in 2009. Later divested ISS and acquired GMI Ratings in 2014 • Over 160 analysts globally • 100% coverage of MSCI World and Emerging Markets indices
Sustainalytics	• Governance pillar focused more on sustainability • Considerable weight allocated to the existence of controversies	• Sustainalytics offers a separate investment-focused Corporate Governance Rating solution • Formed from a merger of AIS, DSR, and scoris GmbH, and later merged with Jantzi Research • Over 140 analysts globally • 100% coverage of MSCI World Index and approximately 95% coverage of MSCI Emerging Markets Index
Oekom Research	• Governance is categorized under the "S" pillar • Provides both raw ESG scores and a "prime" rating to adjust for industry ESG profile • Over 90% of indicators are sector-specific	• Grown organically since inception • Over 100 analysts globally • 100% coverage of MSCI World Index and approximately 95% coverage of MSCI Emerging Markets Index
Bloomberg	• Focuses solely on disclosure based on key metrics available from company filings	
Asset4 (Thomson / Reuters)	• Subcomponent scores (some sector-specific) are equally-weighted. ESG pillars are also equally-weighted • Scores are standardized against the entire Asset4 universe – no peer group classifications • Collects only from publicly available data	• Used to have an "Economic Performance" pillar in addition to E, S, and G, but was later removed • Only monitors companies that report in English • Over 150 analysts globally • Covers 90% of MSCI ACWI Index • 75% of coverage is outside of the USA • 4,300 active companies with information dating back to 2002
Trucost (recently acquired by S&P Dow Jones)	• Focuses solely on environmental data • Cost estimates are given (damage cost/revenue) instead of scores	• Environmental impact information is very granular • Examines the impact of both the company and its supply chain

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