4TH QUARTER ▪ 2018

INVESTMENT PUBLICATIONS HIGHLIGHTS

Fourth quarter's edition summarizes five articles on environmental, social, and governance (ESG) data:

- the first article assesses the motivations, barriers, and perceptions that influence investors' use of ESG data;
- the second argues that ESG characteristics impact financial variables and performance through a cash-flow channel, an idiosyncratic risk channel, and a valuation channel;
- the third highlights how a quantitative investment approach can help mitigate any underperformance associated with incorporating ESG factors in an investment process;
- the fourth argues that the so called "sin stock anomaly" can be solely attributed to exposures to certain well-known factors;
- and the fifth analyzes how two metrics used in common ESG screens, financial discipline and diversity, have the potential to unlock alpha.

WHY AND HOW INVESTORS USE ESG INFORMATION: EVIDENCE FROM A GLOBAL SURVEY

Amir Amel-Zadeh and George Serafeim, *Financial Analyst Journal*, vol 74, no 3 (Third Quarter 2018): 87–103

The authors conducted a survey to explore whether certain motivations, barriers, and perceptions of ESG data have implications for their current and future use in investment decisions. Ultimately, the survey results suggest that ESG data is important for investors primarily because of perceptions about its impact on performance, but its influence in the future will likely be driven by how investors perceive ESG data's impact on performance and its reliability.

More than 80% of the senior investment professionals that responded to the survey indicated they considered ESG data when making investment decisions, with their primary motivation stemming from financial, rather than ethical, motives. Responses tended to differ by the firm's size and geographic region. Large firms were more likely to cite financial considerations; US firms were more likely to indicate strategic motives; and European and small firms were more likely to cite ethical concerns. The minority of participants who responded that they do not use ESG data primarily cited the lack of access to reliable nonfinancial data as a key barrier.

To gain further insight into investors' application of ESG data, the authors asked which common ESG investment strategies investors used in their investment process. Most investors cited that they leverage ESG data to engage with companies, integrate into valuation models, and negatively screen companies. Additionally, the authors found some evidence that an ESG strategy was more likely to be employed if investors' expectations of that strategy's impact on investment performance were high. While investors considered most strategies to be financially beneficial, they found company engagement, integration into valuation models, and positive screening to be highly beneficial strategies. Surprisingly, the other most commonly used strategy, negative screening, was viewed as the least financially beneficial strategy.

In an attempt to tie together some of the findings from their survey, the authors conducted a regression analysis of the responses to gain a better understanding of why certain ESG investment strategies were employed. The results showed that a strategy's perceived impact on returns was a positive, yet fairly weak, predictor of which ESG strategy was used in the investment process. However, there was also evidence to suggest that certain motivations, such as an investor's product strategy or ethical stance, could be significant determinants of strategy use. These somewhat competing results help explain why strategies associated with financial consideration (integration into valuation models) and ethical motives (negative screening) are both commonly used strategies.

The majority of investors that participated in the survey believe most of the ESG strategies will continue to play an important role in the future. However, the analysis suggests that the influence of specific ESG strategies in the future will be more dependent on perceptions regarding data reliability and a strategy's impact on performance.

FOUNDATIONS OF ESG INVESTING (PART 1): HOW ESG AFFECTS EQUITY VALUATION, RISK AND PERFORMANCE

Guido Giese et al., *Research Insight*, MSCI ESG Research, November 2017

Existing literature on ESG characteristics and investment performance finds that the relationship between the two is inconsistent. Research that does suggest a link exists fails to identify how ESG characteristics impact stock prices. Using existing corporate finance models, the authors argue that ESG characteristics impact stock prices through three primary channels: cash-flow, idiosyncratic risk, and valuations. They find evidence that higher-rated ESG companies tend to be more profitable, have less company-specific downside risk, and have higher valuations. They also show that changes in ESG characteristics predict changes in financial variables and performance.

First, the authors consider the impact of ESG characteristics on future cash flows. They assert that higher-rated ESG companies have a competitive advantage versus their peers due to factors like the efficient use of resources that are associated with their higher ESG ratings. This competitive advantage leads to an increase in profitability, resulting in higher dividends. Based on their analysis, the authors find evidence in support of this assertion: higher-rated ESG companies have typically been more profitable and paid more dividends over the past ten years. Since dividends have been

shown to play an important role in medium- to long-term performance, the tendency of higher-rated ESG companies to have high-dividend yields may help explain any improvement in their risk-adjusted returns.

Next, the authors consider the impact of ESG characteristics on idiosyncratic risk. The theory is that higher-rated ESG companies typically have above-average risk controls and compliance standards (integral components in the ESG rating process), leading to fewer instances of severe incidents (such as fraud or corruption) and, therefore, less company-specific downside risk. By examining the frequency of large drawdowns in companies' stock prices or instances of bankruptcies over the past ten years, the authors observe that higher-rated ESG companies showed a lower frequency of idiosyncratic risk incidents than lower-rated ESG companies. If this is the case, it would help explain any improvement in higher-rated ESG companies' risk/return profiles.

Last, the authors consider the impact of ESG characteristics on valuations. They claim that higher-rated ESG companies tend to have lower cost of capital and therefore higher valuations. Their assumption is based on the CAPM model framework, which states that companies with less systematic risk exposure have a lower required rate of return and, ultimately, a lower cost of capital. The authors examine higher-rated ESG companies' market betas and find that they tend to be lower than the market betas of lower-rated ESG companies (i.e., they have a lower cost of capital). Furthermore, higher ESG ratings also coincided with higher valuations in terms of both average book-to-price and predicted earnings-to-price ratios. If higher-rated ESG companies tend to have higher valuations, then that could partially explain any abnormal returns associated with ESG characteristics.

To show that ESG characteristics influence cash flows, idiosyncratic risk, and valuations—and not the other way around—the authors examine the extent to which changes in companies' ESG ratings have been leading indicators for changes in the variables important to each of these three transmission channels. They find evidence that the companies whose ESG ratings were upgraded tended to see a decrease in their systemic volatility, betas, predicted earning-to-price ratios (indicating an increase in valuation), and severe drawdown frequency over the next three-year period relative to companies that had their ESG ratings downgraded. Perhaps most importantly, the authors show that ESG rating changes may be a financially significant indicator in its own right. They find that companies that saw the most improvement in their ESG ratings year-over-year have outperformed companies that experienced less improvement or downgrades year-over-year.

A MORALITY TALE OF ESG: ASSESSING SOCIALLY RESPONSIBLE INVESTING

Edward N.W. Aw, Stephen J. LaPerla, and Gregory Y. Sivin, *The Journal of Wealth Management*, vol 19, no 4 (Spring 2017): 14–23

The authors examine the effects of incorporating ESG factors into the portfolio construction process. Through a variety of measures, they find that considering ESG factors generally detracts from performance. However, evidence suggests that a thorough quantitative investment approach can help mitigate the negative effects of considering ESG factors.

The authors analyzed a sample universe of publicly traded companies for the period August 31, 2009 – July 31, 2016 with at least a $1 billion market capitalization and for which Sustainalytics has ESG ratings data. Next, they organized the ESG scores of the universe companies into quintiles from most ESG compliant to least ESG compliant. When analyzing the data, both positive (choosing only the most ESG compliant firms) and negative (removing the least ESG compliant firms) screens were used in assessing the impact of the ESG factors.

The study analyzed the individual ESG components: environmental, social, and governance, as well as the three components combined. They found that screening the universe for the combined ESG components produced a performance headwind, although many of the metrics were not statistically significant. When the individual ESG components were tested, both the environmental and social elements detracted from performance, while avoiding firms in the bottom quintile of the governance rating added to performance. The same universe was then tested in relation to an existing investment process for which valuation, profitability, capital deployment, earnings quality, and business risk factors were used to identify attractive stocks. When ESG screens were applied to the existing investment process, the portfolio underperformed relative to the same portfolio if ESG factors were not taken into consideration, but did manage to outperform the MSCI All Country World Index.

Overall, the authors found that incorporating ESG factors into security selection detracted from performance, both on a standalone basis and when applied to an already existing stock selection model. They did demonstrate that a thorough quantitative investment approach can help offset some of the negative effects of screening for ESG factors.

SIN STOCKS REVISITED: RESOLVING THE SIN STOCK ANOMALY

David Blitz and Fran J. Fabozzi, *The Journal of Portfolio Management*, vol 44, no 1 (Fall 2017): 1–7

Existing literature has found that "sin stocks" tend to outperform the broader market, which presents socially conscious investors with a dilemma: either set up their portfolio to underperform, or invest in controversial firms to unlock alpha. The authors study the apparent sin stock anomaly by applying the latest insights from asset pricing theory and find that the excess returns of sin stocks can be entirely attributed to other factors.

"Sin stocks" refers to equity securities of firms that benefit financially from human vice, such as tobacco, alcohol, gambling, and weapons. As investors have become more socially aware, it has become more common for many to maintain exclusion lists of sin

stocks they wish to omit from their respective investment portfolios. This can come at a cost—it is widely regarded that sin stocks outperform the broader market. In fact, multiple studies have found that sin stocks generate alpha in numerous regions over various timeframes. Although the cause is not known, it is often theorized that the excess returns generated by sin stocks are the result of a reputation premium, monopolistic returns, and/or elevated litigation risk.

The authors analyzed sin stock returns for four regions—the United States, Europe, Japan, and developed markets—over multiple rounds of time-series regressions to determine the true drivers of the sin stock anomaly. Initial results corroborated previous studies' findings that sin stocks generate alpha over the broader market.

Using the latest insights from asset pricing theory, the authors add classic factors (market, size, value, and momentum) and newer factors (profitability, investment, and low beta) to the regression analysis. The results show that the alpha generated by sin stocks disappears after controlling for these factors. In the United States, the abnormal return was fully explained by a sin stock's exposure to low-beta, profitability, and investment factors. In Europe, the sin stock anomaly disappeared after controlling for just classic factors. In Japan, sin stocks did not appear to generate alpha over the broader market prior to incorporating additional factors. (Developed markets results largely mirrored those of the United States and Europe.)

The authors conclude that this is good news for socially conscious investors. They no longer have to choose between excluding controversial firms from their portfolios and alpha generation. Instead, an investor can maintain his or her portfolio's expected return by replacing sin stocks with non-sin stocks with similar factor exposures.

UNLOCKING THE PERFORMANCE POTENTIAL IN ESG INVESTING

Feifei Li, Katy Sherrerd, and Jonathan Treussard, Research Affiliates, March 2018

As demand for ESG investment strategies soars, some question whether investors should expect a performance penalty often associated with constrained portfolios. The authors' research indicates that two metrics used in ESG screens—financial discipline and diversity—have the potential to drive outperformance going forward in ESG strategies.

ESG strategies experienced tremendous growth over the last five years, a trend that's likely to continue as the millennial generation, with its greater concern for aligning investments with personal values, accrues more capital to invest. Additionally, large institutions now face pressure to use their investing might to achieve specific social goals. This all comes in spite of the widespread view that constraining portfolio managers, especially in a manner that precludes them from investing in entire sectors of the economy, comes with performance penalties.

Studies on the performance implications of ESG investing are mixed. Some have confirmed the performance penalty view, while others indicate that considering ESG factors may actually improve long-term performance. The authors point to two attributes in particular that align with ESG investing goals and are reliably linked to positive financial performance: financial discipline and diversity. They argue that targeting these attributes increases the chances that an investor's ESG strategy will outperform.

Companies that exercise strong financial discipline prioritize the long-term wealth of shareholders over short-term gains to management and score strongly in the "governance" criteria within ESG. These companies tend to be more profitable, make more prudent capital allocation decisions, issue less equity, and have a higher quality of earnings than companies scoring low on this metric. Accordingly, they have historically earned a return premium over the market.

Furthermore, companies with high levels of diversity are more likely to think critically and process information more carefully than more homogeneous companies. Research has confirmed this view, especially in terms of gender diversity. Since diversity has been linked to better decision making and corporate outcomes, a key ingredient in strong financial discipline, the authors infer that diversity serves as a complementary return driver to financial discipline.

The authors conclude that ESG strategies should be tilted toward companies with high levels of financial discipline and diversity, thereby retaining exposure to factors linked to outperformance. In addition, they should be implemented using a fundamental weighting strategy rather than the more common market capitalization weighting. Research Affiliates recommends investors fundamentally weight portfolios based on accounting metrics such as cash flow, dividends, and sales to avoid costly turnover costs and illiquid, riskier securities that would necessarily be included in a market cap–weighted portfolio. ■

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