THE DEVIL IS IN THE DETAILS: THE DIVERGENCE IN ESG DATA AND IMPLICATIONS FOR RESPONSIBLE INVESTING

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An estimated US$30 trillion of assets under management today take into account some form of Environmental, Social or Governance ("ESG") data[2], however, the question remains as to whether responsible investing delivers only perceived value or can really enhance overall risk/return remains. Much of the challenge in answering this question arises from a lack of standardisation in terms of the definition of ESG and the approach to measuring it. In this paper we discuss the divergence in ESG ratings across different agencies as well as methods investors can use to solve for the unintended exposures this may lead to. Our analysis supports the hypothesis that by considering the key ESG factors relevant to each industry; you can potentially improve overall portfolio results by reducing risk.

Increased demand for responsible investing has yielded a proliferation of rating agencies offering sustainability data. An estimated US$30 trillion of assets under management today are invested considering some form of ESG data[3], a figure that has grown by 34% since 2016. In contrast to the consensus regarding the importance of ESG investing, the divergence around what makes an investment sustainable is remarkable. Rating agencies differ in the identification of relevant factors, the level of granularity at which they assess the information, where the data is sourced, how the factors are measured, and how they are weighted. Rating agencies utilise proprietary scoring methods which break down the E, S and G pillars into various key indicators which they map across industry. Core ESG metrics can vary from as few as 12 performance indicators[4] to as many as 1,000 for other rating agencies.[5] Furthermore, the lack of both standardised rules for environmental and social disclosures and formal auditing processes to verify reported data adds to the subjective nature of ratings.

Robust data is essential to concrete investment analysis, therefore understanding how this data is generated is crucial. As explained in a 2017 McKinsey and Company article, "Among institutional investors who have embraced responsible investing, some have room to improve their practices. Certain investors – even large, sophisticated ones integrate ESG factors into their investment process using techniques that are less rigorous and systematic than those they use for other investment factors."[6] Investors glossing over these issues and blindly aligning their strategies to a single rating agency may end up with a portfolio of companies that is only "subjectively" sustainable, i.e., sustainable in the eyes of one rating agency but not others. In addition to these dramatically divergent views, sustainability data often carries important unintended exposures, typically a size and region bias, favoring large cap and European based companies. Separating noise from data is imperative for the construction of a truly sustainable portfolio.

Dramatic Divergence in Sustainability Ratings

Unlike financial information where the development of reporting standards has led to some degree of investor consensus, sustainability information is still lacking in terms of standardisation and formalisation, and in many instances assessing sustainability invites more than a fair dose of subjectivity. While the data is still evolving, organisations such as the Global Reporting Initiative (GRI), Sustainable Accounting Standards Board (SASB) and the Task Force on Climate-related Financial Disclosures (TCFD) have encouraged company level transparency and continue to help drive a framework towards increased standardisation in reporting.

The sources of these discrepancies are multiple. For example, how does an agency rate factors for which there is no information available? Some rating agencies assume that lack of public information implies that the company is hiding negative data and therefore penalises companies without sufficient information available. Other agencies assume that when there is no information, companies will generally follow the practice in their industry and therefore use the industry average as a proxy. Overall, ESG rating schemes tend to reward companies with more disclosures. It is possible for companies with historically weak ESG practices and robust disclosures to score in-line with or above peers despite realising greater ESG risk. In addition, purely disclosure based rating methodologies allow companies to manipulate the process. Self-reported and unaudited sustainability reports tend to showcase companies in the best light and may draw less attention to material risks. According to SASB roughly 75% of the information reported in sustainability reports is already addressed by issuers in their SEC filings; however 90% of known negative events are not disclosed in either the SEC filings or sustainability reports.[7] The below illustrates the divergence in composite ESG ratings across two large rating agencies (Exhibit 1).

EXHIBIT 1: DIVERGENCE OF TWO ESG DATA RATING AGENCIES ACROSS GLOBAL UNIVERSE OF SECURITIES
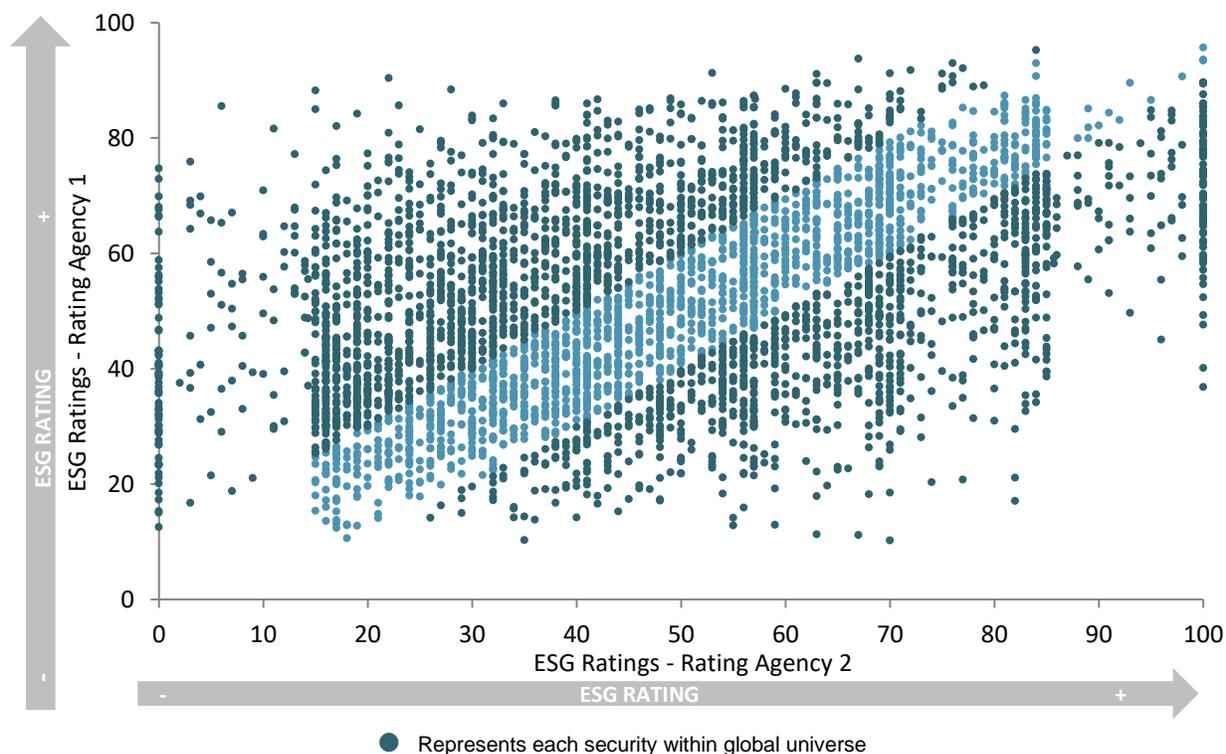
● Represents each security within global universe

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[7] Established in 2011, the Sustainability Accounting Standards Board (SASB) is an independent private-sector standards setting organization dedicated to enhancing disclosure of material sustainability information.

This divergence stems from discrepancies in views, and thus weightings, on the importance of key E,S and G indicators for various industries as well as the methods and factors used to measure those indicators. For example, ESG data rating agencies may all have a varying view on how important Health and Safety is as a risk to manage for various industries, and within Health and Safety differences in how they measure whether a company is effectively managing it. The disparity in views among rating agencies is equally dramatic at both the aggregate as well as underlying ESG level. This implies that the source of the discrepancy is not only the weighting of the factors but also in the variation of factor definitions and metrics. Exhibit 2 shows the correlation of E, S, G and aggregate ESG ratings between two large rating agencies across US and Global universes.

EXHIBIT 2: HISTORIC CORRELATION OF ESG RATINGS ACROSS UNIVERSE

Source: MSCI and Refinitiv, From December 2012 to December 2018 period. US data is based off MSCI US Index and Global data is based off MSCI ACWI IMI.

Exhibit 3 shows the ratings for the six largest global companies (by market capitalisation) across four ESG rating providers.

EXHIBIT 3: DIVERGENCE IN ESG RATINGS ACROSS LARGE, GLOBAL COMPANIES
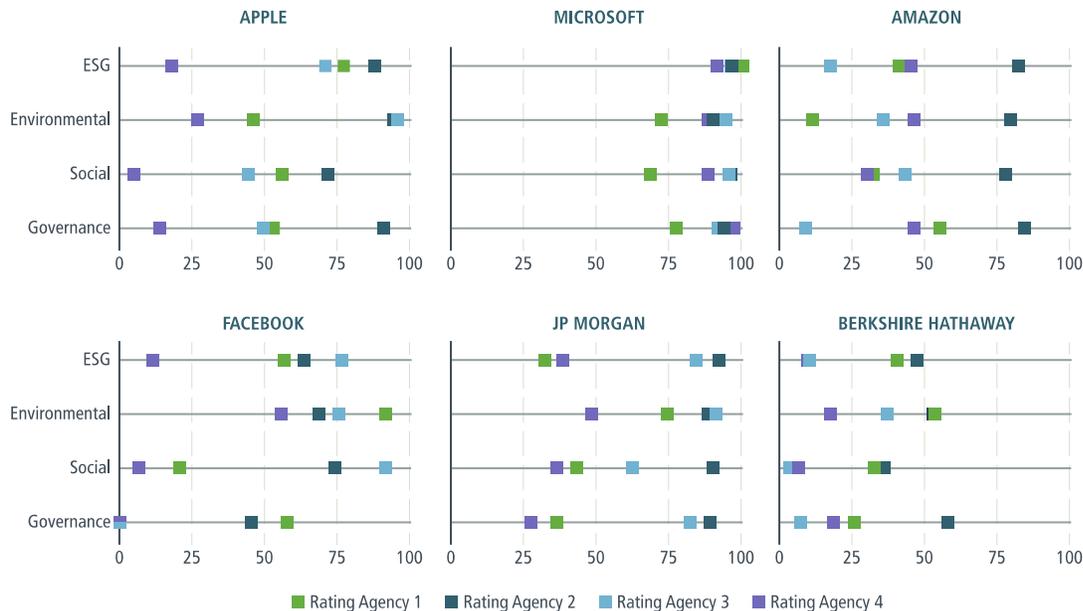
Source: MSCI, Sustainalytics, Robeco and Refinitiv. Ratings as of February 2019. Rating Agency 1 represents MSCI ESG ratings; Rating Agency 2 represents Thomson Reuters ESG ratings; Rating Agency 3 represents Sustainalytics ESG ratings; Rating Agency 4 represents Robeco ESG ratings.

Many investors and analysts are tempted to treat ESG ratings like corporate credit ratings. In the purest sense, ESG ratings attempt to quantify a company's exposure to certain business risks. As more capital is allocated within an ESG framework, these ratings will start to impact a company's cost of capital. However, the correlation of ESG rating agencies is quite weak – 0.40 in contrast to the correlation of credit ratings which is quite strong at 0.90.[8] This impacts ESG's ability to be properly reflected in corporate stock prices, as investors face challenges when trying to identify out-performers versus laggards. Even if a large fraction of investors have a preference to invest in strongly rated ESG companies, the divergence of ratings disperses the effect of these preferences on asset prices.[9] Considering this, it seems more appropriate to compare ESG ratings with sell-side stock analyst recommendations, where some may recommend "buy" and others "sell" based on the same or similar financial information.

Unintended Exposures

Despite the discrepancy in ratings, there are certain biases that affect data from all agencies and which will decidedly have an impact on the overall portfolio. Two of the most notable unintended exposures are in company size and geography. Rating agencies' reliance on survey and policy disclosure data has led to consistent skew favoring large and multi-national companies. Many companies have started documenting their policies in publicly available sustainability disclosures; however, producing such disclosures is resource intensive and financially burdensome. As a result, larger companies rate better as they generally have increased transparency and resources to dedicate to such initiatives.

To examine company size bias, Exhibit 4 (on next page) shows the distribution of ESG scores across deciles for a global portfolio. The result of this bias is that a simple portfolio built from companies with the highest ESG scores will typically contain a higher proportion of large cap companies than the benchmark. The magnitude of this bias will also be determined by the data agency used, as some agencies rely more heavily on survey data compared to others which look to consider alternative data sources. The bias will be further pronounced for investors using more stringent ESG criteria (stocks in the top decile), constructing concentrated portfolios, and utilising size as a factor, via market cap weighting, as these will tilt the portfolio even further away from small cap companies.

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[8] Kerber, and Flaherty, "Investing with 'green' ratings? It's a gray area" 2017 https://www.reuters.com/article/us-climate-ratings-analysis-idUSKBN19H0DM.
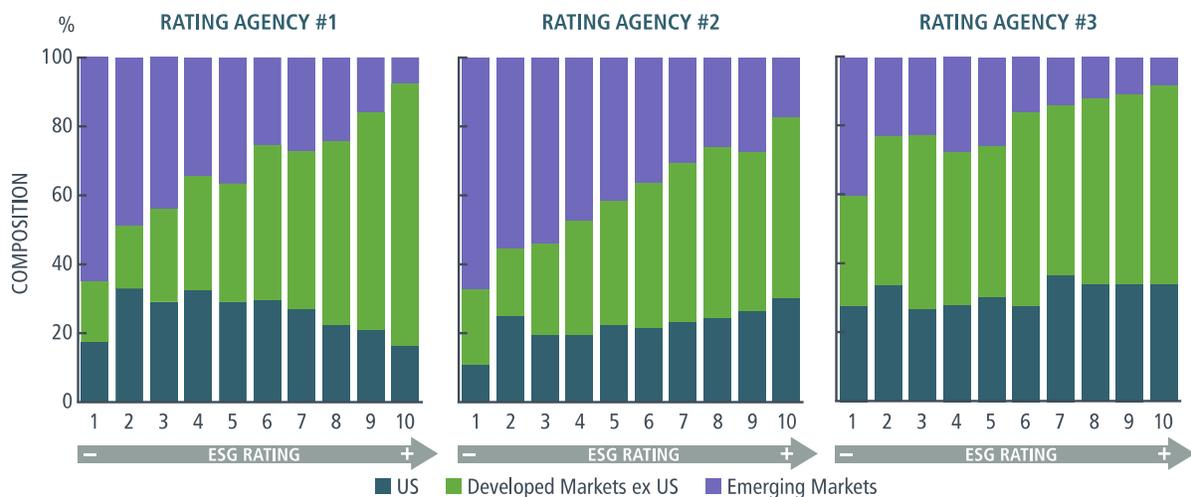[9] Fama French 2007.

EXHIBIT 4: LARGE CAP BIAS EMBEDDED WITHIN ESG RATINGS
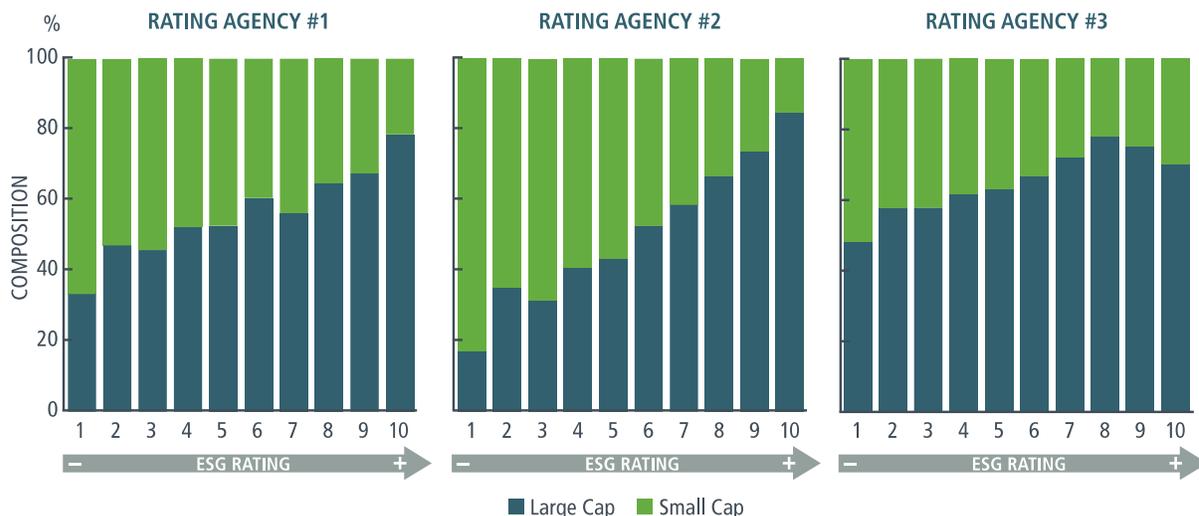
Source: MSCI, Refinitiv, Sustainalytics and QS Investor. Universe is ACWI IMI. Data is average for December 2012-2018 period. Global universe is ranked by ESG and divided into deciles, where decile 10 is comprised of the stocks with highest ESG rating. Rating Agency 1 represents MSCI ESG ratings; Rating Agency 2 represents Thomson Reuters ESG ratings; Rating Agency 3 represents Sustainalytics ESG ratings.

Additionally, rating agencies show a clear bias favoring developed markets outside of the US, particularly European companies over North American, Emerging Markets and Developed Asian counterparts. The source of this bias may not fully reflect the quality of ESG practices, but rather the existence and quality of formal reporting requirements in various jurisdictions. Regulatory requirements vary widely by region, therefore two companies in the same industry with similar characteristics but different jurisdictions may receive different ratings. Exhibit 5 illustrates this effect across agencies.

EXHIBIT 5: GEOGRAPHIC BIAS EMBEDDED WITHIN ESG RATINGS

Source: MSCI, Refinitiv, Sustainalytics and QS Investors. Universe is ACWI IMI. Data is average for December 2012-2018 period. Global universe is ranked by ESG and divided into deciles, where decile 10 is comprised of the stocks with highest ESG rating. Rating Agency 1 represents MSCI ESG ratings; Rating Agency 2 represents Thomson Reuters ESG ratings; Rating Agency 3 represents Sustainalytics ESG ratings.

These unintended exposures may not result in the desired ESG impact or risk and return profile. This underscores the importance of thorough data analysis and a robust investment process that truly distinguishes information from noise and controls for unintended bets during the portfolio construction process.

Not all ESG Issues Matter Equally

In accounting, something is deemed to be material if its omission would have an impact on financial outcomes. In a similar vein, we define an ESG indicator to be material if it affects the risk and/or return characteristics of a company. For example, companies that protect employee health and safety are generally at lower risk of litigation and work stoppages which impact their ability to produce profits.

We determine materiality of key ESG indicators on an industry basis, given that companies within a sector are likely to share, to some extent, business models and confront similar sustainability challenges. For instance, customer data privacy is vitally important for financial institutions. But does customer data privacy have a material impact on Consumer Staples companies? Our research shows that financial institutions better able to protect consumer data average 2.75% lower volatility while Consumer Staples companies with strong data privacy policies see no volatility reduction, on average. Conversely, Consumer Staples companies that focus on worker health and safety are 3.27% less volatile on average while Financial companies with similar policies are only about 0.25% less volatile (Exhibit 6). Furthermore, we find that a company's carbon emission levels have a significant impact on its risk-adjusted return if the company is in a material-intensive industry, while it has no bearing on its risk-adjusted returns if the company is in the Commercial and Professional Services industry. Thus, a one-size-fits-all approach to responsible investing will likely fall short, as it obscures some of these important distinctions.

EXHIBIT 6: CONSIDERING ESG INDUSTRY MATERIALITY HAS RESULTED IN VOLATILITY REDUCTION
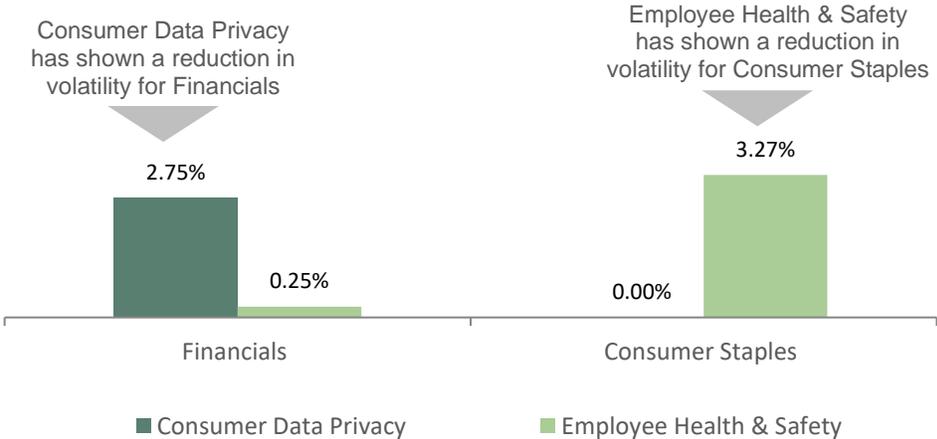
Source: QS Investors. Universe: S&P Global BMI. Average forecasted volatility from January 1, 2013 to December 31, 2018.

Investment Implications

In order to assess the impact of sustainability on a stock's risk and return we must first address ESG rating dispersion across agencies, unintended geography and size exposures, and relevant industry materiality. In accounting for these considerations, we construct proprietary ESG ratings utilising material factors from multiple rating agencies to build a comprehensive assessment. In selecting ESG factors we first assess the historical impact on realised risk and return to determine if they are pertinent in the evaluation of a particular industry. For this analysis, we utilised a global universe of large and mid-cap sized companies.

On an annual basis, we ranked companies relative to their sector and region peers (US, Emerging Markets, and Developed Markets ex-US) to mitigate unintended exposures driven by varying regulation and reporting requirements. From these ranks, we organised the universe into quintile groups spanning low-to high-scoring ESG companies.

We explored expected risk and return for the global universe and for regional subsets of this universe from 2012 to 2018. The results of our analysis were mixed in respect to returns, showing a small, however statistically insignificant increase in expected returns for companies that scored higher on our ESG ratings. This return premium was further obscured when accounting for common factor exposures. From a risk perspective however, we observed that these higher rated ESG companies provided a substantial and statistically significant risk reduction before and after accounting for common factor exposures. Based on the overall characteristics of the ESG quintiles, high scoring ESG companies appear to offer traditionally defensive characteristics such as high dividend yield, larger market cap and higher ROE.

Returns

Exhibit 7 shows the spread across 12-month average expected total return and idiosyncratic return, defined as the return not attributable to traditional factors such as size, value and growth. While the excess return results were mixed, neither was considered to be statistically significant.

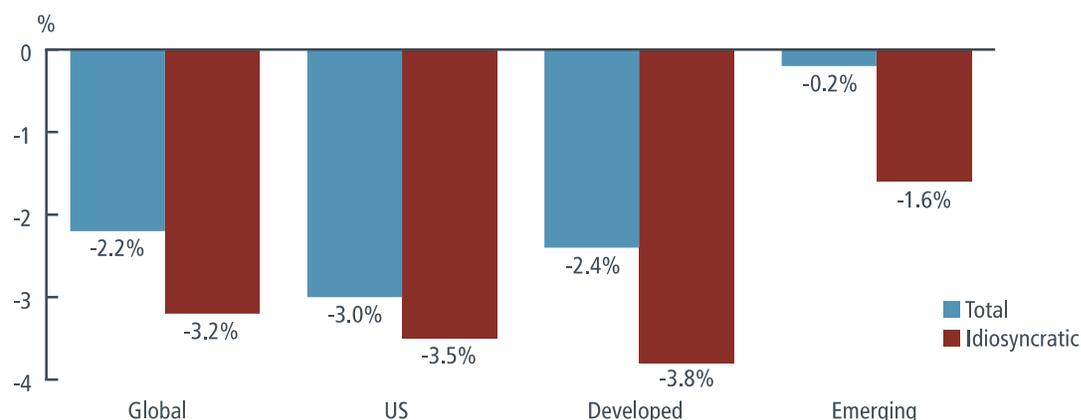EXHIBIT 7: AVERAGE EXPECTED RETURNS, HIGH- MINUS LOW-ESG QUINTILES
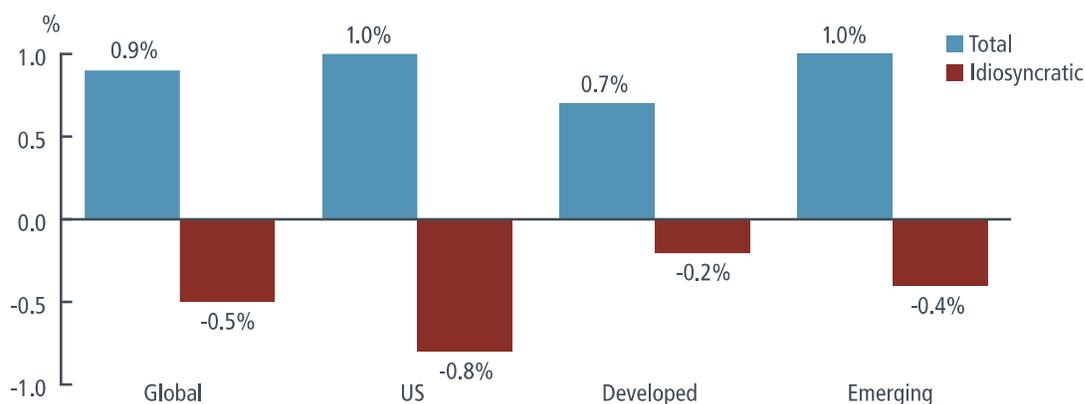
Source: Refinitiv and QS Investors. High ESG is equivalent to the top quintile scoring ESG names based on QSI ESG ratings. Low ESG is equivalent to the bottom quintile scoring ESG names based on QSI ESG ratings. Return and risk considered on a 12-month forward looking basis. Bars represent the difference in average forward 1-year risk/return for a High ESG company minus a Low ESG company. Difference in absolute and idiosyncratic risk between High and Low ESG companies was statistically significant, defined by a p-stat of 0. ESG data baskets as of December 2012 through December 2018.

Risk

Exhibit 8 shows the average 12-month average expected volatility for companies in the high-and low-ESG grouping. Across all regions, there are reductions in the forecasted volatility of higher scoring ESG companies relative to lower scoring ESG companies. Most interestingly, these results not only persist but grow in magnitude when considering idiosyncratic risk (taking into account common risk factors). This implies that the reduction in risk is truly attributable to ESG factors, rather than explained by common risk factors. These results are substantial and statistically significant for all regions, except Emerging Markets where statistical significance is weaker.

EXHIBIT 8: AVERAGE EXPECTED RISK, HIGH-MINUS LOW-ESG QUINTILES

Source: Refinitiv and QS Investors. High ESG is equivalent to the top quintile scoring ESG names based on QSI ESG ratings. Low ESG is equivalent to the bottom quintile scoring ESG names based on QSI ESG ratings. Return and risk considered on a 12-month forward looking basis. Bars represent the difference in average forward 1-year risk/return for a High ESG company minus a Low ESG company. Difference in absolute and idiosyncratic risk between High and Low ESG companies was statistically significant, defined by a p-stat of 0. ESG data baskets as of December 2012 through December 2018.

Exhibits 9A and 9B show average characteristics of high-and low-ESG quintiles. There is generally a slight difference in beta between the two groups. Valuations are mixed with the high-ESG group realising slightly higher price-to-book and lower price-to-earnings ratios. For all regions, companies with higher ESG ratings show a sizable improvement in dividend yield and ROE.

EXHIBIT 9A: PORTFOLIO CHARACTERISTICS, HIGH ESG QUINTILE

	BETA	PRICE/BOOK	PRICE/ EARNINGS	DIVIDEND YIELD (%)	RETURN ON EQUITY (%)
Global	1.06	3.52	18.51	3.00%	19.50%
US	1.08	3.99	19.38	2.20%	21.40%
Developed Markets	1.09	3.03	18.01	3.50%	17.20%
Emerging Markets	0.95	3.67	17.9	3.30%	20.40%

Source: Refinitiv and QS Investors. US is represented by the MSCI USA Index; Developed Markets is represented by the MSCI EAFE Index; Emerging Markets is represented by the MSCI EM Index; Global is represented by the combination of the MSCI USA Index, MSCI EAFE Index, and MSCI EM Index.

EXHIBIT 9B: PORTFOLIO CHARACTERISTICS, LOW ESG QUINTILE

	BETA	PRICE/BOOK	PRICE/ EARNINGS	DIVIDEND YIELD (%)	RETURN ON EQUITY (%)
Global	0.92	3.10	20.18	2.10%	13.70%
US	1.09	3.77	20.46	1.60%	13.90%
Developed Markets	0.79	2.52	20.98	2.20%	12.50%
Emerging Markets	0.88	2.99	18.05	2.90%	16.00%

Source: Refinitiv and QS Investors. US is represented by the MSCI USA Index; Developed Markets is represented by the MSCI EAFE Index; Emerging Markets is represented by the MSCI EM Index; Global is represented by the combination of the MSCI USA Index, MSCI EAFE Index, and MSCI EM Index.

This indicates that even after accounting for sector bias, positive ESG signals are picking defensively oriented companies with quality characteristics represented by the lower volatility, higher ROE and stronger dividend yielding profile of the high-ESG quintile.

After accounting for rating agency dispersion, unintended exposures, and factor materiality, our proprietary ESG ratings show that higher rated ESG companies realise returns in-line with lower scoring ESG companies with less risk. These risk reducing benefits provide a significant opportunity to complement traditional financial metrics in the evaluation of both fundamental and quantitative investment processes. Given the orthogonal nature of ESG information, we believe integrating material non-financial factors alongside financial factors provides investors an additional lens to develop a complete understanding of the opportunities and risks faced by companies.

Conclusion

With trillions of dollars pledged to sustainable practices, shifting demographic trends, and a new revolution in non-financial data, responsible investing will likely avoid the grave yard of financial fads. The space will continue to evolve and provide opportunities to better understand specific risks, performance potential, and company reputation. Our analysis shows that there is less risk among companies that scored higher on ESG metrics. As it becomes evident that the market is starting to price in company specific ESG risks, we expect to see further integration of ESG considerations alongside traditional financial analysis. However, as always, the devil is in the details. Therefore, it is critical for investors interested in sustainable data to educate themselves on the vast amount of data available, the varying methodologies and nuanced processes used by ratings agencies, as well as on the best way of embedding these considerations within the investment process.

About QS Investors

QS Investors is a quantitative asset manager that provides multi-asset class and global equity solutions built on a deeper understanding of investment and human dynamics. We believe quantitative investing provides a better framework to be more creative when solving for client challenges. By taking a systematic approach, we can better test our insights, manage risk and target the investment outcomes a client wants. Our quantitative approach unites the intellectual and academic precision of science, engineering, mathematics, finance and investment expertise with the power of data and technology in our quest to elevate the certainty of the outcomes we deliver.

Formed in 1999, QS Investors became a wholly owned, independently managed affiliate of Legg Mason in 2014. The firm is based in New York City and Boston, serving clients globally.

About QS Investors Responsible Investment Capabilities

QS Investors has an excellent long-term track record in the management of global equity portfolios. The marriage of a clear investment philosophy, disciplined investment process and proven investment team that focusses on identifying those companies with the best ESG credentials at attractive valuations is a powerful combination.

We have purposefully developed our Responsible Investing global equity capabilites to harness these insights. We combine our proven long-term investment process alongside proprietary sustainability analysis, then overlay these with client led exclusions to create tailored portfolios that meet client needs in terms of investment outcomes and sustainability goals. We are committed to continue to learn and enhance this proposition dedicating significance research resources to delve deeper into what can be achieved as new empirical evidence and academic research comes to the fore.

Find out more about the [Legg Mason QS Investors Global Responsible Investment Fund](#)

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