ESG Matters

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Summary

- **High ESG Performance is Generally Positively Related to Valuation and Profitability and Negatively Correlated with Volatility**
- **High-ESG Companies are Good Allocators of Capital**
- **High-ESG Performance / High-EVA Margin Stocks Tend to Outperform**
- **High-ESG Firms Tend to be Less Cyclical and are More Likely to be in the Technology, Health Care, and Consumer Non-Durables Sectors**

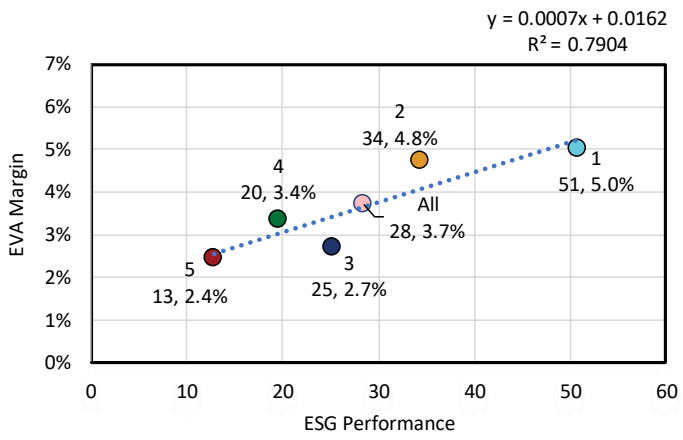
Introduction

There appears to be a link between ESG – Environment, Social, and Governance – and financial performance (figure 1). While one can argue that the relationship between ESG and financial performance is perhaps due to the fact that more profitable firms have the resources to invest in areas that positively influence ESG, it could also be that profitability rises as a result of a company better managing its material ESG risks, or it could be a little bit of both. If it is a little bit of both, then this means that good-ESG initiatives drive up financial performance, which then provides the monetary resources to invest to be an even better-ESG firm, which then drives up performance again, and so on.

People may choose not to invest in a firm that has poor ESG, thereby limiting its access to capital and raising its *cost of capital*. Firms that get in trouble on the environment may be distracted by the *regulatory* headache (higher *costs*) and customers may avoid the firm (lowering *revenue*). If one does not treat employees right, this could lower morale, increase turnover, and therefore lower *productivity*.

Interest in ESG is growing rapidly and has gained traction amongst corporations, individuals, investors, and institutions.

Figure 1: Higher ESG Performance Related to Higher EVA Margin



Source: ISS ESG Corporate Rating data and ISS EVA (Investor Express).
Notes: Data is for 12/31/2018. EVA Margin is the trimmed average (20% outliers excluded) and ESG Performance is the average. EVA Margin equals [(ROIC – cost of capital) * invested capital] / sales. Alternatively, EVA Margin is (NOPAT – capital charge) / sales and (sales – operating costs – capital costs) / sales. ESG Performance can range from 0 to 100 based on ISS's proprietary model. 1-5 are quintiles for sorts on ESG Performance.

Corporations

In March 2019, the Global Reporting Initiative noted that two decades ago when it launched its guidelines only a handful of companies disclosed their environmental performance, while now 93% of the world's largest companies by revenue report information on their ESG. In Q3 2019, FactSet reported 31 S&P 500 companies citing "ESG" on earnings calls. This is up from 24 in Q2 and 12 in Q1. In Q2 2017, there were only two citations. Interestingly, nine of the firms mentioning ESG in Q3 2019 were from the financial sector, which according to ISS's ESG ratings, earns lower ESG Performance. Maybe the companies are recognizing the need to change?

Individuals

In a recent survey by Allianz of a nationally representative sample of 1,000 people 18 years or older, it was found that only 15% of Americans recognize the term ESG. While this is low, the majority (79%) like the idea of investing in a company that cares about the issues. While the young generation leads the push to ESG (64% are more likely to make investment decisions on issues they care about), even the older generation (boomers at 42%) are getting

on-board. While some may just like the idea that good-ESG companies do good for the world, millennials are more likely to believe that companies that care about social issues have better long-term success.

Investors and Institutions

If good ESG has cost and revenue advantages as suggested earlier, then this should positively impact investment performance. Perhaps this, along with the younger generation's push to consider social issues, is driving ESG investing.

- Harvard Business Review reports that in 2006, when the UN-backed Principles for Responsible Investment (PRI) was launched, only 63 investment companies with $6.5 trillion in assets had signed a commitment to

Data and Other Important Comments

ESG Performance is from Institutional Shareholder Services' (ISS) ESG Corporate Rating data, EVA metrics are from ISS EVA Investor Express, and return data and other non-EVA financial data are from FactSet. Companies are in the US.

The ESG data is the end of 2013 through March 2019 and return date is through September 2019. US companies less than $250 million in market cap were excluded. The start date is the end of 2013 since we have a good dataset of 534 securities and ISS ESG rating methodology was consistent post 2013. Over time, ISS has been increasing the number of rated securities and by March 2019 the dataset for this study covered 1,196 US securities.

Unless otherwise stated, securities are sorted across the entire universe of ESG rated companies to compute various statistics.

This paper specifically shows that ESG appears to be related with profitability, size, value, volatility and other factors that are correlated with returns. Thus, the paper does not divide returns attributed to each variable (ESG, size, value, volatility, profitability, etc.) on purpose. Since ESG may be the cause of the other characteristics, they may be intrinsically connected, so it does not make sense to separate them into different drivers of returns. Although, for some added information, the paper does review the results of two- and five-way fractiling of ESG Performance and EVA Margin.

ISS ESG Corporate Rating data for ESG Performance (ranges from 0 to 100) includes over 800 indicators, with approximately 90% industry-specific. Weights for E, S, and G pillars are dependent on the industry. For each industry, five key issues, representing more than 50% of the overall rating, are identified.

Cross-Sectoral Indicators (Extract)	**Environment**	**Social**	**Governance**
	• Energy Management	• Equal Opportunities	• Board Independence
	• Climate Change Strategy	• Health and Safety	• Shareholder Democracy
	• Water Risk and Impact	• Human Rights	• Business Ethics
	• Environmental Impact of Products	• Suppliers	• Payments to Governments

Industry-Specific Indicators (Examples)	**Oil, Gas and Consumable Fuels**	**Automobile**
	• Access to sustainable energy	• Strategy regarding new mobility concepts
	• Environmentally safe operations of facilities	• CO2 emissions of passenger cars
	• Reduction of gas flaring	• Alternative drives and fuels
	• Pipeline integrity and safety management	• Security of electronic system

incorporate ESG issues into investment decisions. By April 2018, the number was 1,715 and represented $81.7 trillion in assets.

- In an October 2018 *Financial Times* article, Larry Fink, chairman and CEO of BlackRock, stated "'We are only at the early stages.'" Fink estimates that assets in ESG ETFs will grow from $25 billion to $400 billion in a decade.
- The CFA Institute's position statement on ESG integration includes "The CFA Program curriculum currently teaches that ESG information can often be material or otherwise useful in the investment decision-making process. Understanding ESG information can lead to a better understanding of a company's complete story (a tile in the whole mosaic). The curriculum does not say that charterholders *must* consider ESG. However, if an ESG issue is material, it should be considered in the investment process."
- A host of additional regulatory and voluntary reporting obligations and reporting standards on ESG include, but are not limited to, the Task Force on Climate-related Financial Disclosures (TCFD) – supported by the PRI, Sustainability Accounting Standards Board (SASB), EU Sustainable Finance Initiative, sustainable finance regulation in Canada, Article 173 in France, etc.

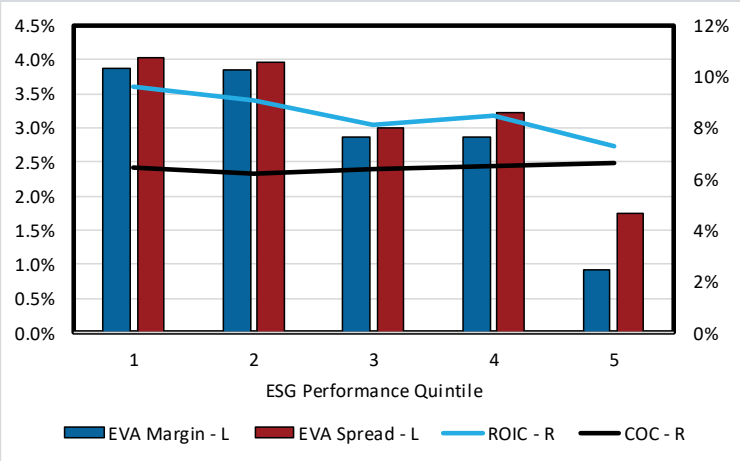
ESG investing can be used in a number of ways such as (1) investing in areas to make an impact, (2) excluding companies that do not align with goals, and (3) incorporating ESG into how one looks at each investment. *This paper shows that ESG may matter for corporate and investment results. There appears to be a positive relationship between ESG and financial performance and investment returns, so ESG can be used to screen for companies with good financial and investment performance. Thus, it may be material for returns, which if so, according to the CFA Institute's position, means that it should be considered in the investment process.*

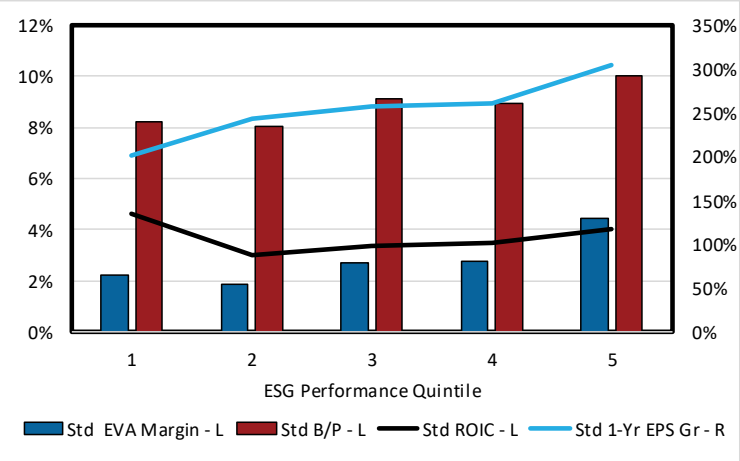
Higher ESG Associated with Higher Profitability and Lower Volatility

ESG Performance is related to higher EVA Margin, EVA Spread, and ROIC. Figure 2 shows that as the quintile of ESG Performance gets better (1s are best), EVA Margin, EVA Spread, and ROIC rise. ROIC measures what a firm earns on capital invested. If owners are good stewards of capital, they will view it as scarce, which drives up ROIC since the denominator of ROIC is capital. If employees are productive, revenue will be high, and if costs are low, then earnings will also be high. EVA Margin rises as ROIC grows versus cost of capital. If a firm earns more on its capital (ROIC) than its cost of capital, it is creating economic value added (EVA). EVA Margin is EVA in dollars divided by sales, and EVA Spread is EVA in dollars divided by capital. Thus, high ESG companies are associated with firms that create economic value.

Not only is ESG correlated with profitability, but it is also correlated with volatility. However, the relationship is opposite. Higher volatility is associated with lower ESG Performance. Figure 3 shows that volatility rises for EVA Margin, valuation (B/P, or the reciprocal of P/B), ROIC, and EPS growth as ESG Performance declines.

Figures 2 and 3: High ESG Performance Related to Higher Profitability and Lower Volatility





Source: ISS ESG Corporate Rating data, ISS EVA (Investor Express), and FactSet.
Notes: Data is for 12/31/2013 – 6/28/2019. Statistics are trimmed averages (20% outliers excluded). Standard deviation is for rolling five years.

The preceding measures for EVA are based on the total capital of a firm and the cost of capital is the weighted average for all capital of the firm. EVA can also be calculated based on ROE less the cost of equity capital. Figure 4 shows that ROE also rises for higher-ESG performing companies. This is primarily driven by being better stewards of capital, as asset turnover (sales/assets) declines with ESG Performance. Low-ESG companies are not as efficient using their assets to generate sales. On the other hand, net profit margin (earnings/sales) is higher for lower ESG Performance. Still, as shown earlier in figure 2, a better margin that considers capital charges (EVA Margin) indicates that good ESG companies have higher margins.

EVA Definitions

EVA Margin and EVA Spread

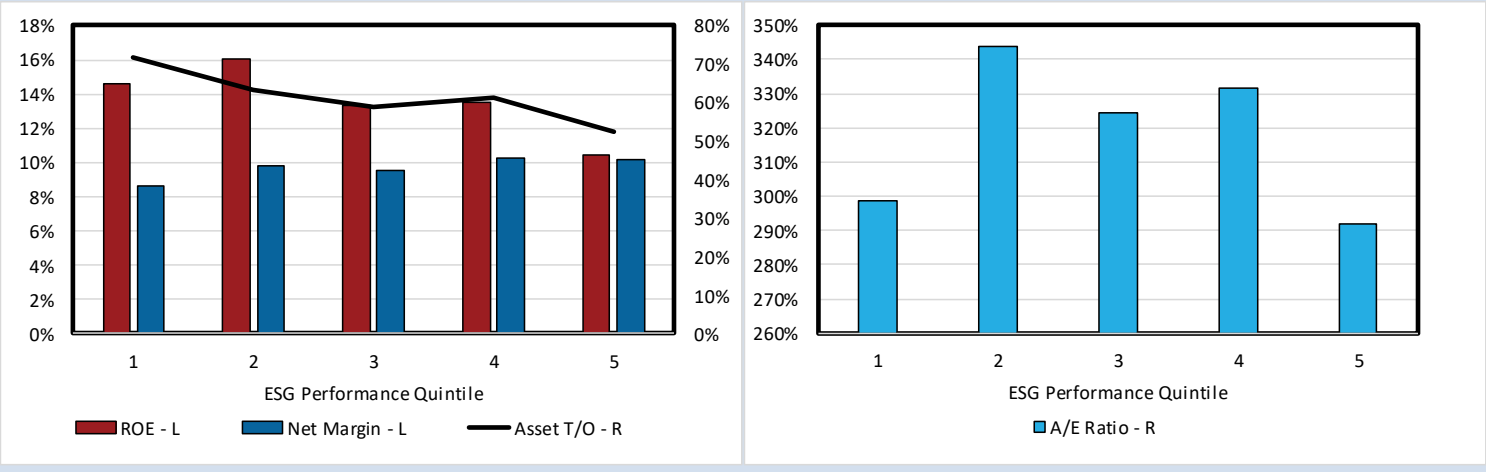
EVA = (return on capital minus WACC) times the amount of capital. This is equivalent to net operating profit after taxes less the amount of profit required by investors on their invested capital (WACC times IC_0) and is also the same as sales minus operating costs minus capital costs. To scale EVA for comparisons, EVA is divided by sales to create EVA Margin. EVA divided by invested capital is EVA Spread.

MVA Margin and MVA Spread

The MVA Margin, (V_0 minus IC_0) divided by S_0, is the amount the company is worth (or priced in the market) above the book value of capital as a percent of sales. MVA Margin is directly related to how much is earned on capital above its cost of capital (EVA) as a percent of sales, or EVA Margin. Similarly, MVA Spread is (V_0 minus IC_0) divided by IC_0 and is related to EVA Spread.

See "How EVA Can Enhance DCF and P/E Analysis: A Case Study" for a review of how the discounted free cash flow model produces the same results as EVA valuation method, and how the EVA methodology sheds additional insights. See "Profitability Drives Value" for a review of how EVA Margin is empirically tied to MVA Margin and returns and how disconnects between EVA Margin (profitability) and MVA Margin (value) create investment opportunities.

Figures 4-5: High ESG Performance Related to Higher ROE and Asset Turns



Source: ISS ESG Corporate Rating data, ISS EVA (Investor Express), and FactSet.
Notes: Data is for 12/31/2013 – 6/28/2019. Statistics are trimmed averages (20% outliers excluded).

Figure 5 shows that leverage, as measured by assets/equity, is about the same for low and high ESG Performance. This means that the high ROE for high-ESG Performance firms is not due to leverage. Although, since these companies are less volatile (figure 3), maybe they could justify more leverage. Low-ESG companies may have problems (i.e., they have lower EVA Margin, higher volatility, and lower asset turns, and later, I will show that they tend to be more cyclical), which means they perhaps cannot afford to be as levered.

Higher ROE for higher ESG Performance is driven by asset turnover – a focus on the balance sheet.

High-ESG Performance Companies are Good Allocators of Capital

Free cash flow (FCF) can be used to pay a dividend, buy shares, pay down debt, and build up cash and marketable securities. High EVA may be associated with high FCF. Here is why.

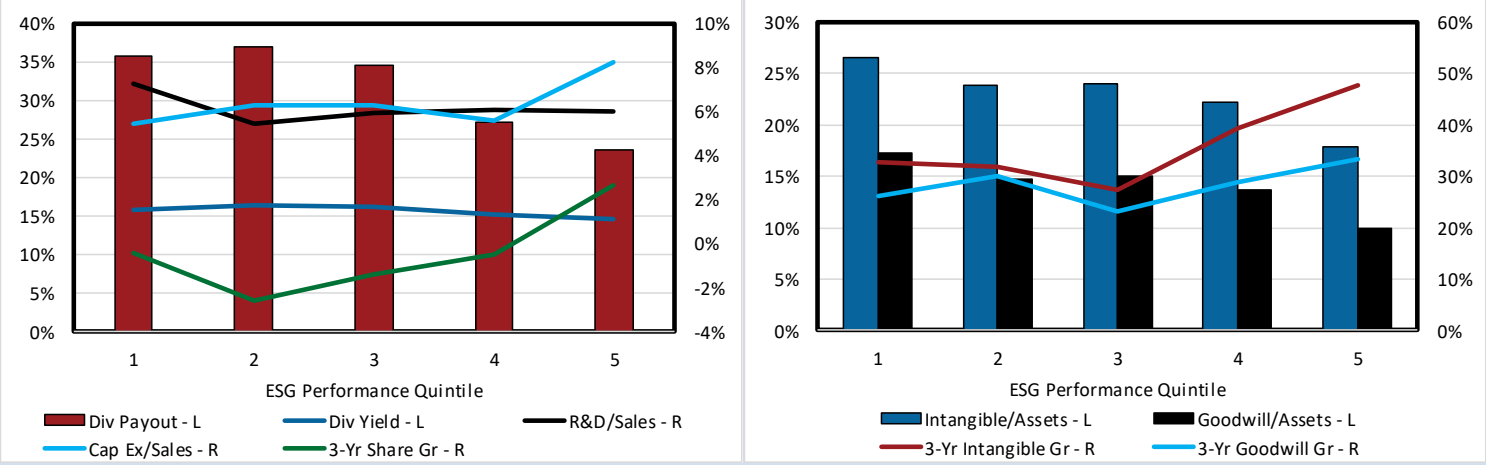
- Higher ROIC, without a commensurate rise in the cost of capital, will drive up EVA.
- Since ROIC is profits divided by capital, this means that a high-ROIC firm (i.e., high-EVA firm) has high profits relative to its capital.
- FCF is profits minus new investments in capital, so as long as ROIC is high and stable, free cash flow should also be high.

Oftentimes, firms are too confident and overinvest in capital when FCF is high (and EVA and ROIC are high) (see figure 10 of The Expectations Clock: A Model for Cycles and Sentiment). EVA and ROIC are driven down if the new investments do not yield the same level of profits as earnings on existing capital. Because of this, firms that are good stewards of capital should consider all options for uses of profits, not just capital investments.

See figure 6. The higher the ESG Performance the higher the dividend payout ratio and dividend yield. Furthermore, high ESG Performance is associated with higher share buy-backs. Thus, good ESG is correlated with

returning capital to shareholders. High-ESG firms also have modest debt (figure 5). This does not mean that high-ESG companies don't invest for the future. They tend to have higher levels of R&D (figure 6), which may lead to their higher level of intangibles (figure 7). However, high-ESG performing companies tend to invest less in capital expenditures. Remember (figure 4), high-ESG companies tend to have higher asset turns. R&D is generically for new and better things, whereas cap ex may be to make more of the same, so perhaps high-ESG companies are more likely to be at the cutting edge?

Figures 6-7: High-ESG Performance Companies Use Cash Flow Wisely



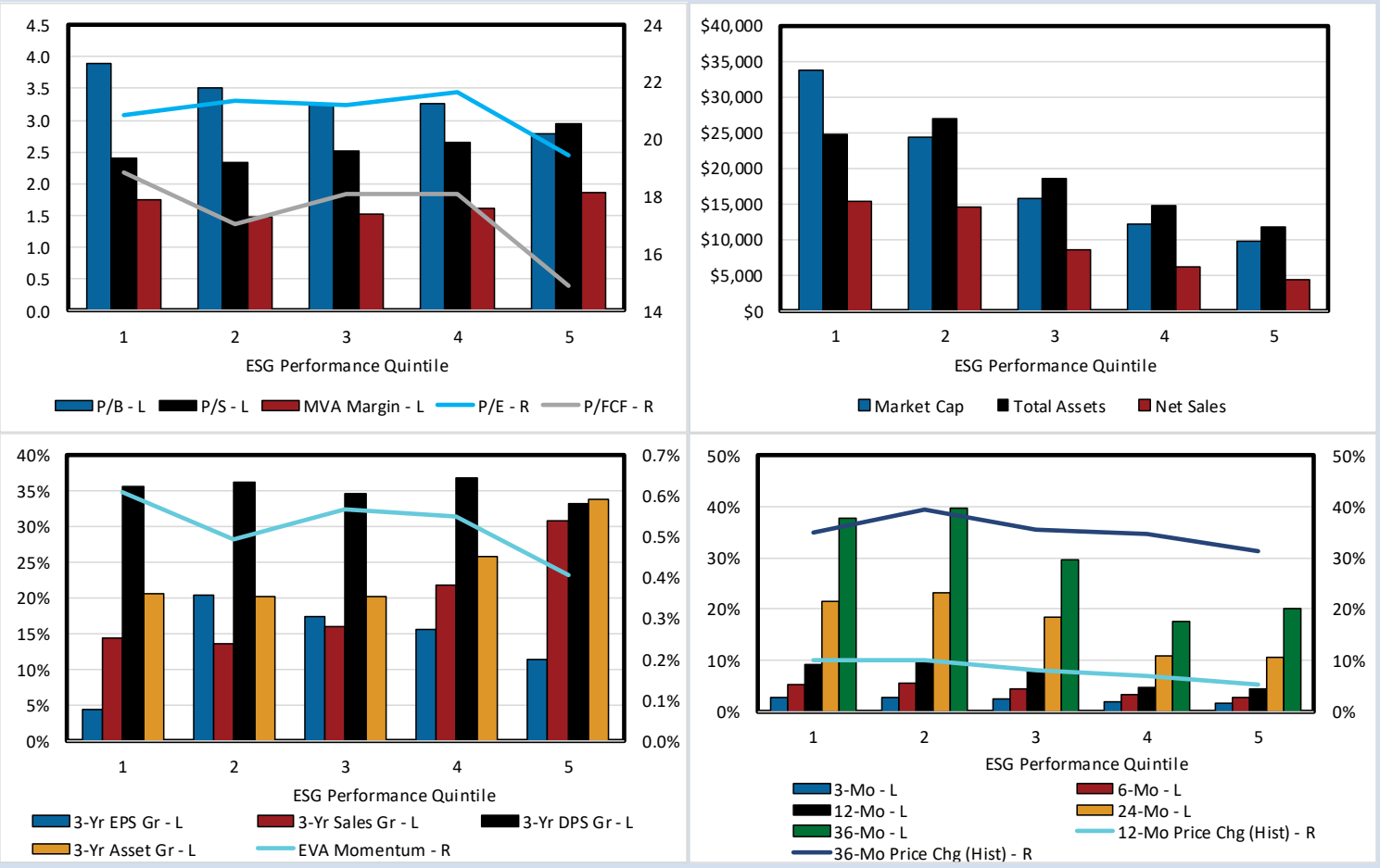
Source: ISS ESG Corporate Rating data, ISS EVA (Investor Express), and FactSet.
Notes: Data is for 12/31/2013 – 6/28/2019. Statistics are trimmed averages (20% outliers excluded).

Good-ESG Companies Generally Have Higher Valuations, EVA Growth, Size, and Returns

Figure 8 shows that at least several valuation multiples (P/E, P/FCF, and P/B) tend to be positively correlated with ESG Performance. Investors are rewarding higher profitability and being a good steward of capital. Good-ESG companies also tend to be larger (figure 9), but in general the entire universe that is ESG rated is large. This could explain their lower levels of volatility (figure 3) – they are perhaps more diversified. Larger companies may be more profitable (figure 2) due to operating leverage; fixed costs are spread over more units so average cost per unit is lower.

An exception to valuation multiples generally being higher for high-ESG Performance is MVA Margin, or the amount the firm is valued above invested capital (Market Value Added, or MVA) as a percent of sales. MVA Margin for the high- and low-ESG Performance companies is about the same. Perhaps MVA Margin for the high-ESG Performance companies, despite their higher levels of profitability, is reflecting their lower EPS, sales, and asset growth (figure 10)? Although, the more important EVA Momentum (growth in EVA) variable tends to rise with higher ESG Performance. Dividends per share growth is also modestly higher for the top-ESG Performance companies versus the bottom quintile. Furthermore, maybe the reason MVA Margin is not lower for low-ESG Performance companies is because investors are betting on EVA turnarounds or focusing on the higher sales, EPS, and asset growth for these stocks.

Figures 8-11: High-ESG Firms are Valued Highly, Larger, Have Higher EVA and DPS Growth, and Better Returns



Source: ISS ESG Corporate Rating data, ISS EVA (Investor Express), and FactSet.
Notes: Data is for 12/31/2013 – 6/28/2019. Statistics are trimmed averages (20% outliers excluded).

Another exception to higher valuation for high-ESG Performance companies is P/S. P/S is higher for low ESG Performance. This is explained by higher net profit margins for low-ESG Performance companies (figure 4). One is willing to pay a higher price for sales (P/S) for firms that earn more on their sales (net profit margin).

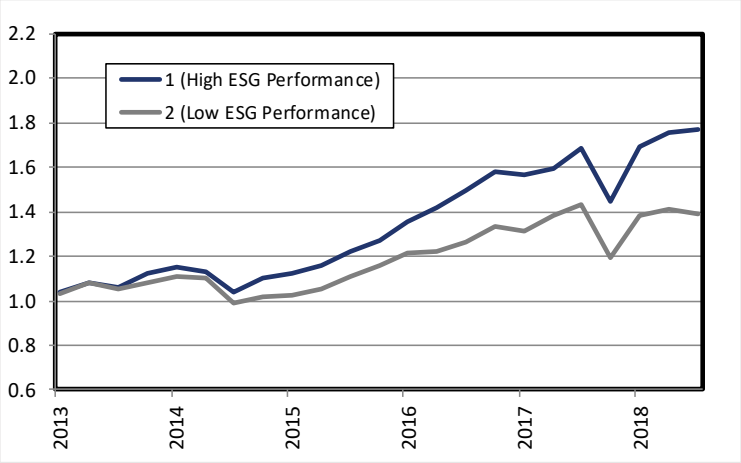
Overall, high ESG Performance is associated with good past and future returns (figure 11). Perhaps if these companies were too highly valued (MVA Margin too high), returns would be lower. So, while higher valuation may be preferable from a company's perspective, it could also mean lower returns which is not. Finally, valuation multiples may rise if growing interest in ESG creates more demand for high-ESG Performance stocks and drives up their stock prices.

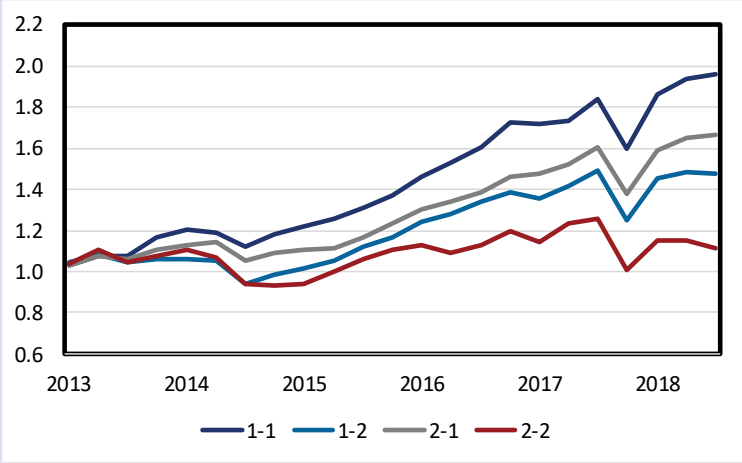
Higher-ESG Performance and Profitable Firms Have Higher Returns with Lower Risk

ESG measures how a firm is taking care of society (E and S) and shareholders (G), and EVA measures a firm's true profitability. While high-ESG stocks outperform (figure 12) and so do high-EVA firms (see Profitability Drives Value), combining ESG with EVA is even better.

Figures 12-14 show returns based on several different sorts of ESG with EVA. Figure 12 shows cumulative returns for a simple sort of stocks in the top and bottom halves of ESG Performance. Figure 13 illustrates the returns of combining ESG with EVA Margin. 1-1s are high-ESG Performance and high-EVA Margin stocks, 1-2s are high-ESG Performance and low-EVA Margin securities, 2-1 stocks have low ESG Performance and high EVA Margin, and 2-2s are low-ESG Performance and low-EVA Margin companies. Figure 14, a table, shows the annual returns and other statistics of a 5X5 fractiling.

Figures 12-14: High-ESG and Profitable Firms Have Higher Returns and Lower Risk





ESG Perfor-mance	12-Mo Returns (%) EVA Margin						Standard Deviation (%) EVA Margin						Sort	Median Value	
	1	2	3	4	5	All	1	2	3	4	5	All		EVA Marg.	ESG Perf.
1	14.6	12.9	5.5	6.8	4.2	9.1	7.3	8.5	9.2	13.8	26.5	10.3	**1**	0.12	50.9
2	11.3	11.7	9.5	9.6	6.2	10.5	10.1	10.5	7.3	8.2	14.3	8.6	**2**	0.04	32.0
3	11.6	7.5	8.5	6.2	2.6	8.5	8.2	7.1	7.1	12.5	18.2	8.2	**3**	0.01	22.0
4	8.8	6.3	4.2	1.1	2.0	4.3	11.2	6.8	8.3	13.2	15.7	8.9	**4**	-0.03	15.8
5	8.3	10.0	3.6	1.4	0.3	4.0	10.1	9.8	11.0	14.9	13.3	9.9	**5**	-0.26	10.0
All	8.9	9.2	6.6	5.8	0.8		10.7	9.4	9.8	13.9	13.6		**All**	0.01	22.1

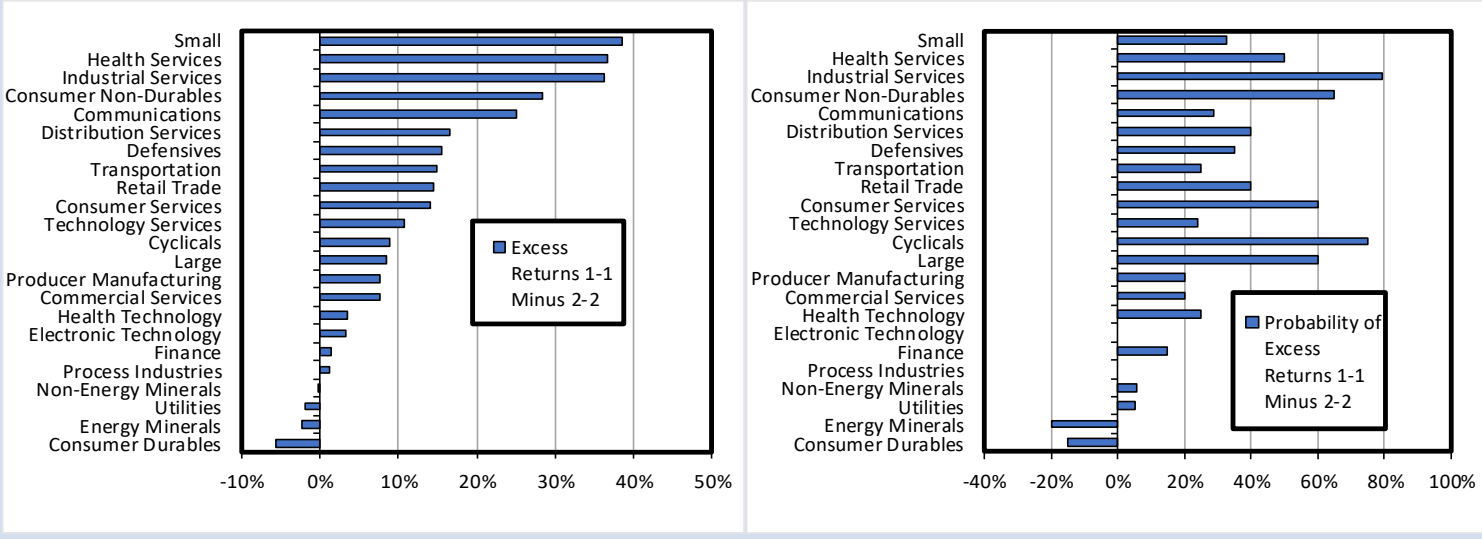
Source: ISS ESG Corporate Rating data, ISS EVA (Investor Express), and FactSet. Back-tests are run with FactSet Alpha Testing.
Notes: Securities sorted every three months. The cumulative returns in the graphs are geometrically derived. Equal-weighted annual returns are shown in the table. Data is from December 31, 2013 through September 30, 2019. The data for the sorts includes US stocks $250 million or greater in market cap within the ISS ESG and ISS Investor Express databases.

High-ESG firms outperform low-ESG companies and combining ESG with profitability is even better. The 1-1s rose 96% from the end of 2013 through 3Q 2019 versus the 2-2s that were up 11%. The highest forward 12-month return for the five-way sort is 14.6% for the highest-ESG Performance / highest-EVA Margin companies, and the lowest return, 0.3% is for the lowest-ESG Performance / lowest-EVA Margin stocks.

Good-ESG firms with high EVA Margin are winners.

Furthermore, the higher returns tend to *not* be associated with higher risk. The fourth lowest risk, based on standard deviation of returns, in the 5-way sort is from the highest-ESG Performance / highest-EVA Margin good-performing stocks.

Figures 15-16: High-ESG Performance / High-EVA Margin Stocks Outperform in Most Sectors



Source: ISS ESG Corporate Rating data, ISS EVA (Investor Express), and FactSet. Back-tests are run with FactSet Alpha Testing.

Notes: Securities sorted every three months. Data is from December 31, 2013 through September 30, 2019. The data for the sorts includes US stocks $250 million or greater in market cap within the ISS ESG and ISS Investor Express databases. The first number in the X-Y category represents ESG Performance and the second EVA Margin. 1s represent companies that have high ESG Performance or high EVA Margin, while 2s represent the low-ESG Performance or low-EVA Margin firms. The left graph shows the excess returns of the 1-1s (high-ESG Performance / high-EVA Margin stocks) versus the 2-2s (low-ESG Performance / low-EVA Margin stocks). The right graph shows the probability of excess returns over the universe of the 1-1s versus the 2-2s.

It Works Across Most Sectors and Over Time

Figure 15 shows that outperformance is not limited to a few sectors. The 1-1s tend to outperform the 2-2s in most sectors. Also, 1-1s perform better than the median sector return in every sector (not shown). This result is not limited to certain time periods. Figure 16 shows that the probability of excess returns is higher for the 1-1s than 2-2s in almost every sector.

One can see from figure 17 that screening on ESG Performance and/or EVA Margin can improve one's odds of choosing a stock that outperforms. 47.8% of companies outperform the FactSet universe, but the odds improve if one screens for ESG Performance and EVA Margin. The spread between high and low is nearly 6% with ESG Performance, about 7% for EVA Margin, and approximately 6% with both combined. While this may not seem significant, keep in mind that all one needs to do is pick more winners than losers – assuming returns are similar – to outperform.

Figure 17: The Probability of Choosing Winners Grows with High-ESG Performance and High-EVA Margin Stocks

FactSet Universe	47.8%	
	High	**Low**
ESG Performance	55.5%	50.0%
	High	**Low**
EVA Margin	53.2%	45.9%
	EVA Margin	
ESG Performance	**High**	**Low**
High	53.0%	52.9%
Low	48.3%	47.2%

Source: ISS ESG Corporate Rating data, ISS EVA (Investor Express), and FactSet. Back-tests are run with FactSet Alpha Testing.

Notes: Securities sorted every three months. Data is from December 31, 2013 through September 30, 2019. The data for the sorts includes US stocks $250 million or greater in market cap within the ISS ESG and ISS Investor Express databases.

Special Note

The fractiling discussed above has been across the entire universe. This introduces sector biases. For instance, some sectors tend to have higher (technology, healthcare, and consumer non-durables) or lower (financials, energy, and retail trade) ESG Performance. Despite perhaps introducing sector bias, sorting across the entire universe was done for three reasons. First, it provides extra insight into how good-ESG and EVA companies perform overall. Second, it allows us to identify the best-ESG sectors. Third, it reduces outliers impacting results. For instance, a 3X3 or 5X5 sort as done above for ESG Performance / EVA Margin may introduce an outlier effect given the limited number of ESG rated stocks. A 3X3 sort results in nine fractiles. Since there are 20 FactSet sectors and a universe that began with only 534 securities (ended with 1,196), this means that, on average, there would be only two securities (25 times 9 is 225) per fractile in the early periods for within sector sorts.

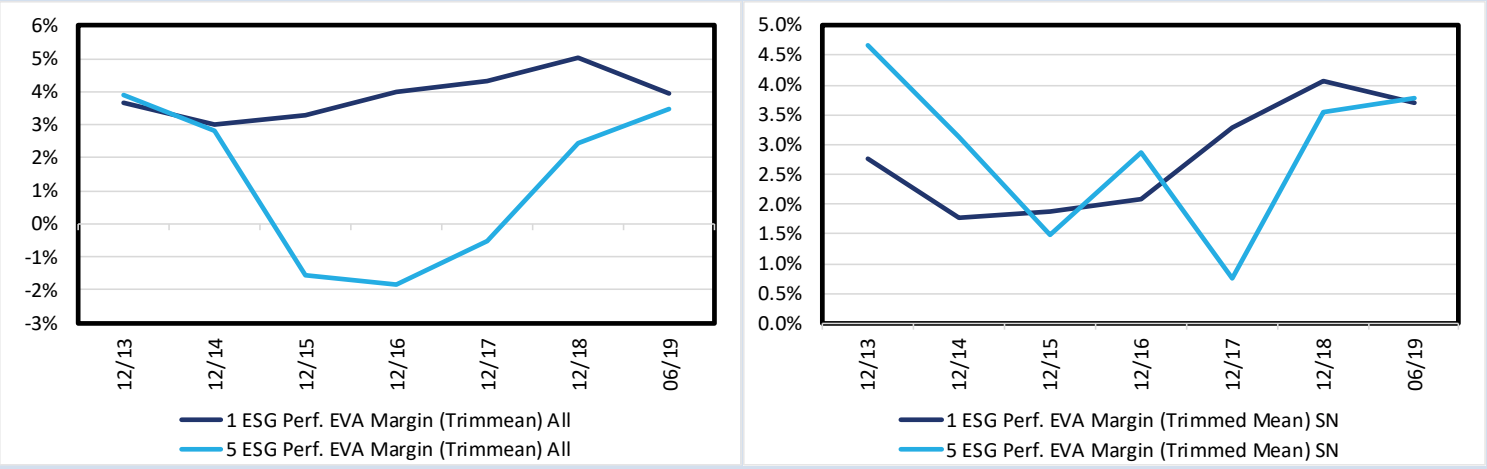
However, it should be noted that, while not displayed here, sorting *within* sectors produced similar results as reviewed above.

- 3X3 and 5X5 sorts of ESG Performance and EVA Margin within sectors generally produced similar results as shown above - higher returns without commensurately higher risk for high-ESG Performance / high-EVA Margin stocks versus low-ESG Performance / low-EVA Margin securities. Because of the concern with outliers, another within sector sort was done, but this time EVA Margin companies outside of one standard deviation of the average were removed. This also produced similar results.
- Generally, *within* sectors and similar to the across the universe fractiling, companies with higher ESG Performance, versus lower ESG Performance, have higher profitability, lower volatility, higher distributions to shareholders, higher EVA growth (but lower other measures of growth except dividends), better returns (except historical three-year price returns), and are larger. Differences in results between within sector sort versus across the universe fractiling include how low ESG Performance was more likely to be associated with higher valuation, generally related to higher intangibles and goodwill, and R&D/sales and cap ex were similar across ESG Performance quintiles (for sorts across the universe, R&D/sales was higher for high-ESG Performance firms and cap ex/sales was lower). Health care and technology generally have a higher weight in the high ESG Performance quintile, so perhaps this explains the high ESG Performance quintile's higher intangibles and goodwill (if they are acquisitive) in the sorts across the universe.
- Similar to sorts across the entire universe, returns of 1-1s are higher than 2-2s within most sectors most of the time. The spreads between returns and percent of time of outperformance is a bit lower for sorts within sectors, as is the probability of picking a winner, but they are still better for the 1-1s than 2-2s.

Profitability Changes Over Time

Profitability changes over time. Figure 18 shows how EVA Margin varies for the high quintile-ESG Performance and low quintile-ESG Performance companies from the end of 2013 through mid-2019. Generally, high-ESG Performance stocks have higher EVA Margin, but recently they have deteriorated as low-ESG Performance companies have improved.

Figures 18 and 19: High ESG Performance *Normally* Has High EVA Margin

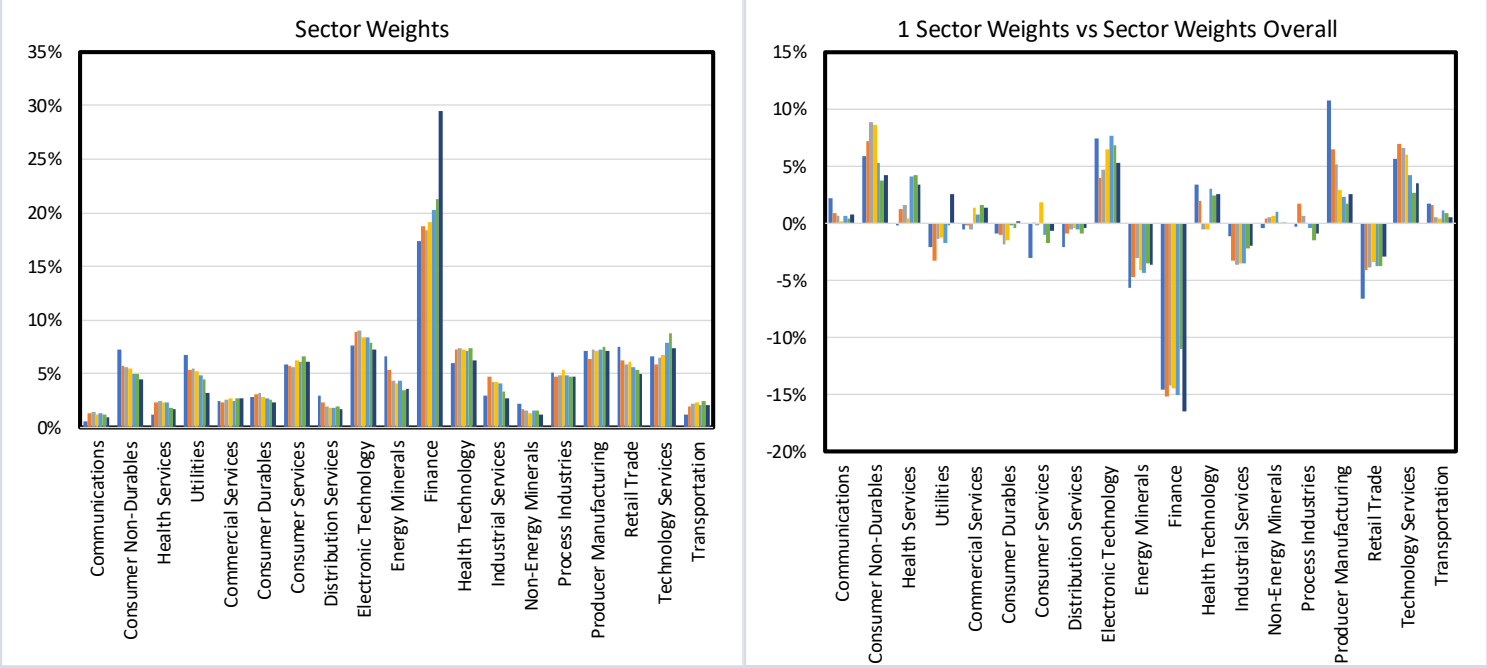


Source: ISS ESG Corporate Rating data, ISS EVA (Investor Express), and FactSet.

Notes: Data is for 12/31/2013 – 6/28/2019. Data for EVA Margin is a trimmed mean where 20% of the outliers are removed. The left graph is for sorts across the entire universe (All) and the right is within sectors (sector neutral or SN).

High-ESG Performance firms are generally overweighted traditionally growth and/or less cyclical areas (figure 21). These include the two technology sectors, two health care sectors, and consumer non-durables. On the other hand, low-ESG Performance is associated with cyclical sectors such as finance, energy minerals, and retail trade.

Figures 20-21: High-ESG Performance Firms Underweight Finance, Energy Minerals, and Retail Trade, and Overweight Consumer Non-Durables, Technology, Health Care, and Producer Manufacturing



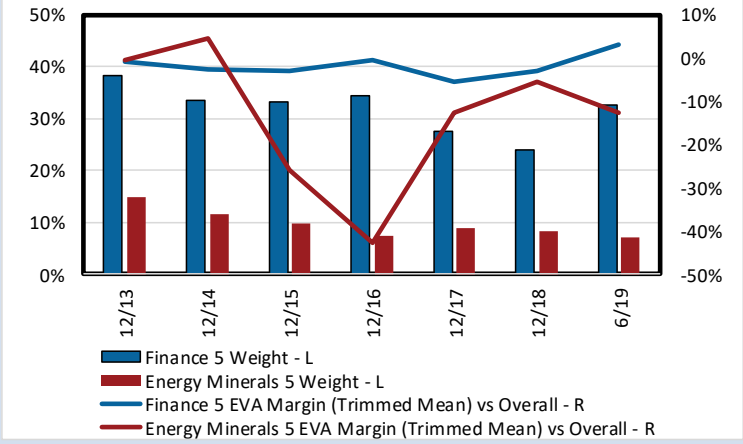
Source: ISS ESG Corporate Rating data and FactSet.

Notes: Data is from December 31, 2013 through June 28, 2019. Bars on the right represent June 28, 2019, and bars on the left December 31, 2013.

Sector weights explain the dive in EVA Margin for low-ESG Performance stocks from 2013 through 2015. This period was associated with a manufacturing recession and a rising threat from online retailers such as Amazon.

EVA Margin for lower-ESG rated finance and energy sectors has risen.

Figure 22: EVA Margin for Low-ESG Performance in Finance and Energy Minerals Has Rallied



Source: ISS ESG Corporate Rating data, ISS EVA (Investor Express), and FactSet.

Notes: Data is for 12/31/2013 – 6/28/2019. Metrics for EVA Margin are trimmed averages (20% outliers excluded) for the two sectors relative to the overall trimmed average of the universe of firms.

The main reason for the rally in EVA Margin for low-EVA Performance stocks is the improvement of relative EVA Margin for the finance sector from -5.4% in 2017, versus the overall trimmed average of the universe, to 2.9% mid-way through 2019 (figure 22). Since finance has a large weight (over 30%) of the 5s, this 8%+ change has over 2.4% impact on the overall EVA Margin for the low-ESG Performance stocks in figure 18. Also, EVA Margin rose significant for energy from the depths of oil prices in the first quarter of 2016. Relative EVA Margin for energy was -42.6% in 2016 versus -13.0% in June 2019. Few energy minerals firms have high-ESG Performance (none since 2015 using end of year data), so the impact of oil prices has more effect on the low-ESG Performance universe than on the high.

EVA Margin also dropped modestly for high-EVA Performance companies this year. Relative EVA Margin for 1s for the higher-weighted technology services and consumer non-durables sectors have retreated. Finance is down a little, while producer manufacturing and health technology are close to flat.

Top-ESG Performance and EVA Margin Securities Tend to be in the Technology, Health Care, and Consumer Non-Durables Sectors

The top-ESG Performance and EVA Margin companies are in the technology, health care, and consumer sectors (figure 23). Specifically, health technology has the most top companies, followed by electronic technology, technology services, and consumer non-durables. The weights of these sectors in figure 23 are much higher than

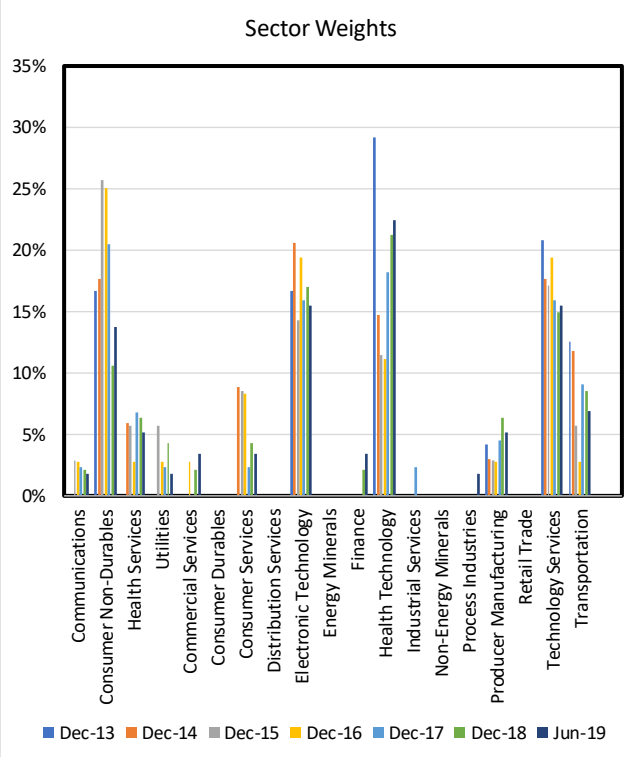
their overall percentages of the universe (figure 20), which means these sectors are on average better rated on ESG and more profitable.

Over time, as ISS has added new securities to its database of ESG companies, the ESG Performance of the top-rated companies has declined (figure 24). This has occurred at the same time as the EVA Margin of the top-ESG companies has risen. On the other hand, for the overall universe, the average ESG Performance and EVA Margin are about unchanged. This implies that the winners have been gaining on the poorer-rated companies. Overall, technology margins have risen as this sector has outperformed. The question then becomes, "Is this sustainable?"

Figure 25 shows the top-ESG Performance and EVA Margin securities. Microsoft is #1, followed by Proctor & Gamble. Companies in the table are first sorted by ESG Performance and then by EVA Margin. Technology, health care, or consumer non-durables companies make of nine of the top ten securities.

EVA Margin of Top-ESG Performance firms has risen.

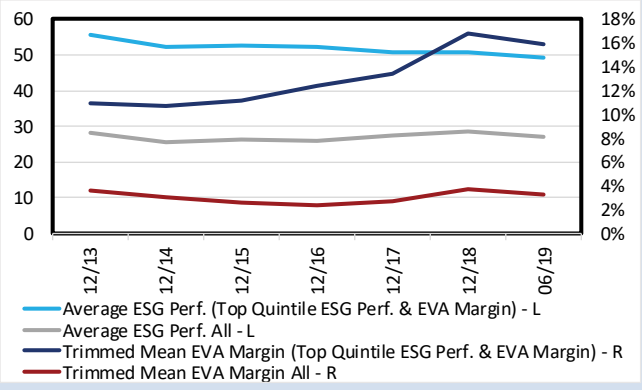
Figure 23: Top Quintile of ESG Performance and EVA Margin Concentrated in Technology, Health Care, and Consumer Non-Durables



Source: ISS ESG Corporate Rating data, ISS EVA (Investor Express), and FactSet.

Notes: Data is for 12/31/2013 – 6/28/2019. June 2019 data are the right bars associated with each sector and December 2013 are on the left.

Figure 24: ESG Performance of Top Quintile of ESG Firms Declining while EVA Margin is Rising



Source: ISS ESG Corporate Rating data, ISS EVA (Investor Express), and FactSet.

Notes: Data is for 12/31/2013 – 6/28/2019. Metrics for EVA Margin are trimmed averages (20% outliers excluded) and data for ESG Performance is averages.

Figure 25: Top Quintile of ESG Performance and EVA Margin Stocks

Company Name	Ticker	FactSet Econ Sector	ESG Perf.	EVA Margin
Microsoft Corporation	MSFT	Technology Services	67	22%
Procter & Gamble Company	PG	Consumer Non-Durables	60	8%
VMware, Inc. Class A	VMW	Technology Services	60	21%
Johnson & Johnson	JNJ	Health Technology	60	11%
Colgate-Palmolive Company	CL	Consumer Non-Durables	59	13%
Intel Corporation	INTC	Electronic Technology	58	10%
Oracle Corporation	ORCL	Technology Services	58	15%
Energy Recovery, Inc.	ERII	Producer Manufacturing	58	13%
Bristol-Myers Squibb Company	BMY	Health Technology	57	18%
Cisco Systems, Inc.	CSCO	Electronic Technology	57	16%
Adobe Inc.	ADBE	Technology Services	56	18%
Apple Inc.	AAPL	Electronic Technology	56	17%
NVIDIA Corporation	NVDA	Electronic Technology	55	22%
AbbVie, Inc.	ABBV	Health Technology	55	21%
Accenture Plc Class A	ACN	Technology Services	54	10%
Verizon Communications Inc.	VZ	Communications	54	10%
S&P Global, Inc.	SPGI	Commercial Services	53	25%
eBay Inc.	EBAY	Consumer Services	53	14%
CSX Corporation	CSX	Transportation	52	18%
Grand Canyon Education, Inc.	LOPE	Commercial Services	52	18%
Visa Inc. Class A	V	Finance	52	39%
Anthem, Inc.	ANTM	Health Services	52	10%
Norfolk Southern Corporation	NSC	Transportation	52	13%
3M Company	MMM	Producer Manufacturing	52	12%
Innoviva, Inc.	INVA	Health Technology	52	39%
Union Pacific Corporation	UNP	Transportation	52	17%
Texas Instruments Incorporated	TXN	Electronic Technology	51	24%
Biogen Inc.	BIIB	Health Technology	51	27%
Intuit Inc.	INTU	Technology Services	51	24%
UnitedHealth Group Incorporated	UNH	Health Services	51	16%
Clorox Company	CLX	Consumer Non-Durables	50	10%
Automatic Data Processing, Inc.	ADP	Technology Services	50	16%
Humana Inc.	HUM	Health Services	49	13%
Varian Medical Systems, Inc.	VAR	Health Technology	49	9%
Micron Technology, Inc.	MU	Electronic Technology	49	23%
Edwards Lifesciences Corporation	EW	Health Technology	48	21%
Cognizant Tech Sol Corp Class A	CTSH	Technology Services	47	10%
Coca-Cola Company	KO	Consumer Non-Durables	46	15%
Exelixis, Inc.	EXEL	Health Technology	46	29%
Alphabet Inc. Class A	GOOGL	Technology Services	46	16%
Arista Networks, Inc.	ANET	Electronic Technology	45	27%
ResMed Inc.	RMD	Health Technology	45	12%
Philip Morris International Inc.	PM	Consumer Non-Durables	44	24%
PepsiCo, Inc.	PEP	Consumer Non-Durables	44	8%
Weyerhaeuser Company	WY	Finance	44	9%
Amgen Inc.	AMGN	Health Technology	44	23%
NetApp, Inc.	NTAP	Electronic Technology	44	15%
Agilent Technologies, Inc.	A	Health Technology	42	13%
Applied Materials, Inc.	AMAT	Producer Manufacturing	42	14%
Kansas City Southern	KSU	Transportation	42	10%
Hershey Company	HSY	Consumer Non-Durables	39	9%
Starbucks Corporation	SBUX	Consumer Services	38	10%
Avery Dennison Corporation	AVY	Process Industries	38	9%
PPL Corporation	PPL	Utilities	38	9%
Mettler-Toledo International Inc.	MTD	Health Technology	37	13%
Estee Lauder Companies Inc. Class A	EL	Consumer Non-Durables	37	12%
Regeneron Pharmaceuticals, Inc.	REGN	Health Technology	37	29%
Skyworks Solutions, Inc.	SWKS	Electronic Technology	37	18%

Source: ISS ESG Corporate Rating data, ISS EVA (Investor Express), and FactSet.
Notes: Data is for 6/28/2019.

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