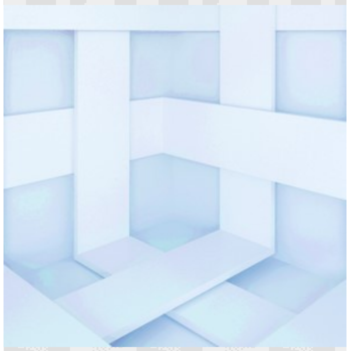
Global Equity Strategy

February 16, 2017



@Struvictory/Crystal Graphics

At the Intersection: *Where* ESG Matters to Factor Investing

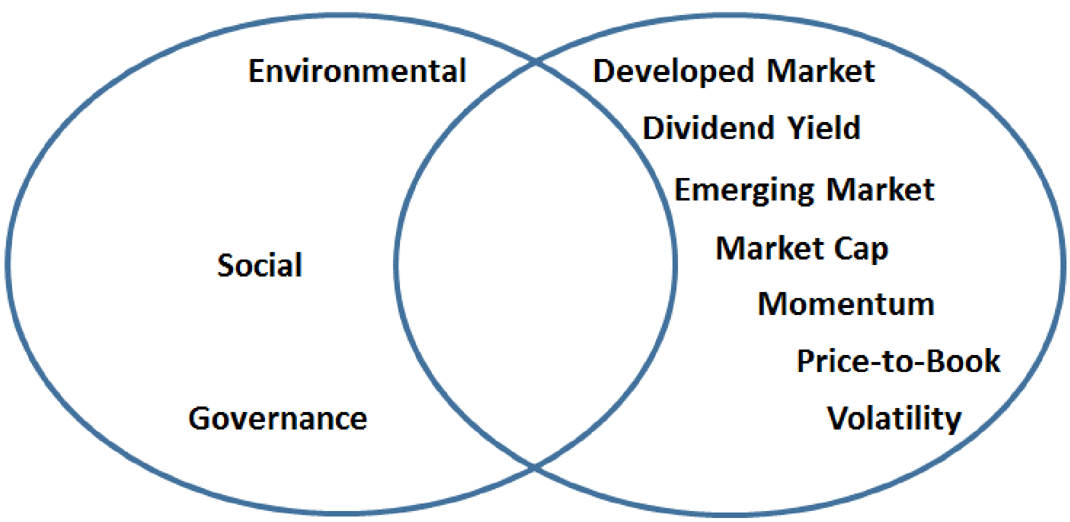
- **From "How" to "Where"** — For many investors, the conversation has shifted from *how* ESG matters (i.e., performance) to *where* it matters. When ESG matters to an investment factor, that can have material implications for stock selection criteria.

- **A Widespread Interaction Between ESG and Investment Factors** — A relationship exists between ESG and a multitude of investment factors, including country classification, market capitalization, and various valuation metrics.

- **ESG Adds Value in Certain Geographies** — Because of wide divergences in the quality of corporate governance in emerging markets, ESG-based stock selection can add significant value. In developed markets, ESG-based stock selection has added more value in Europe than in the US.

- **High ESG Risk Sectors can be Associated with Certain Factors** — Some sectors have greater ESG risks than others. "Value" managers investing in sectors with low price-to-book multiples may unknowingly overweight areas where ESG risks are relatively high, e.g. Materials, Energy.

Figure 1: At the Intersection: ESG and Investment Factors



Source: Cornerstone Capital Group

Michael Geraghty
Global Equity Strategist

Investment Factors and Styles

Since the early 1970s, around 2,250 academic studies have been published on the link between Environmental, Social and Governance (ESG) metrics and corporate financial performance. However, just recently a report[1] pointed out that:

- A series of research papers published in 2016 extolled the virtues embedded in ESG signals. The findings differed from many of those published previously in that they shifted the conversation from *how* ESG matters (answering the "ESG or performance" question) to *where* it matters… [A study] found that ESG made a stronger contribution to performance of companies in emerging markets than those in developed markets.

A portfolio manager's decision to invest in emerging market stocks is an example of *factor investing*. A factor can be thought of as any characteristic relating to a group of securities that is important in explaining their return and risk.

Three main categories of factors are widely referenced today:

- *Macroeconomic:* These involve observable economic time series, such as inflation and interest rates.
- *Fundamental:* These involve observed security attributes such as country classification, market capitalization, dividend yield and the price-to-book ratio.
- *Statistical:* These are derived from cross-sectional or time-series analysis of securities e.g., volatility, momentum, etc.

Figure 2 summarizes five of the most studied factors.

Figure 2: Well-Known Factors from the Academic Research

Systematic Factors	What It is	Commonly Captured by
Value	➢ Captures excess returns to stocks that have low prices relative to their fundamental value	➢ Book to price, earnings to price, book value, sales, earnings, cash earnings, net profit, dividends, cash flow
Low Size (Small Cap)	➢ Captures excess returns of smaller firms (by market capitalization) relative to their larger counterparts	➢ Market capitalization (full or free float)
Momentum	➢ Reflects excess returns to stocks with stronger past performance	➢ Relative returns (3-mth, 6-mth, 12-mth, sometimes with last 1 mth excluded), historical alpha
Low Volatility	➢ Captures excess returns to stocks with lower than average volatility, beta, and/or idiosyncratic risk	➢ Standard deviation (1-yr, 2-yrs, 3-yrs), Downside standard deviation, standard deviation of idiosyncratic returns, Beta
Dividend Yield	➢ Captures excess returns to stocks that have higher-than-average dividend yields	➢ Dividend yield

Source: MSCI

[1] "2017 ESG Trends to Watch," *MSCI ESG Research LLC,* January 2017

That said, it has been noted[2] that:

- The term "factor" is often used throughout the industry liberally and may refer to one of thousands of different stock characteristics. The term "factor" is often applied to any stock characteristic that can be shown to be important, either in explaining risk or returns…

Another industry term is "style investing," which refers to the investment philosophy or objective an investment manager uses to make choices in the selection of securities for a portfolio. Styles and factors are *not* mutually exclusive. So, for example, an investment manager with a "growth" style might focus on emerging markets, while a "value" manager might focus on stocks with relatively low price-to-book multiples.

The Intersection Between Material ESG Issues and Investment Factors

In line with the analysis above, a recent report[3] stated:

- ESG signals and factor exposures have a relationship, and that relationship can either enhance or interfere with investment goals.

Below we discuss a number of such relationships:

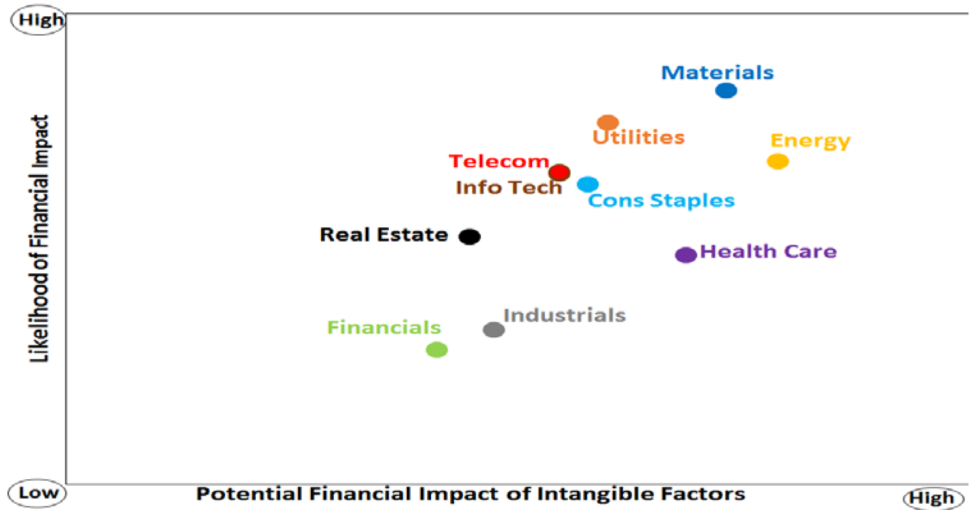
- "Value" managers investing in sectors with low price-to-book multiples may unknowingly overweight areas where ESG risks are relatively high e.g., Materials, Energy.
- Companies with small market capitalizations *and* low price-to-earnings multiples have had lower than average (i.e., weak) ESG ratings.
- Because of wide divergences in the quality of corporate governance in emerging markets, ESG-based stock selection can add significant value.
- There is more appreciation of ESG information in Europe than there is in the US. It has been shown that investors in Europe could have added to their investment returns by allocating to portfolios that invest in companies with above-average ESG ratings.

Sector Investment Factors and ESG Risks

In a previous report, ESG in Sector Strategy: What's Material? (June 23, 2015), we constructed an ESG Materiality Matrix based on analysis by the Sustainability Accounting Standards Board (SASB). We recently updated that analysis (Real Estate and Its ESG Footprint, December 19, 2016) and plotted for the eleven MSCI ACWI GICS the estimated likelihood that a material sustainability event would occur against the potential financial impact of the event — Figure 3.

[2] "Foundations of Factor Investing," *MSCI,* December 2013
[3] "2017 ESG Trends to Watch," *MSCI ESG Research LLC,* January 2017

Figure 3: An ESG Materiality Matrix



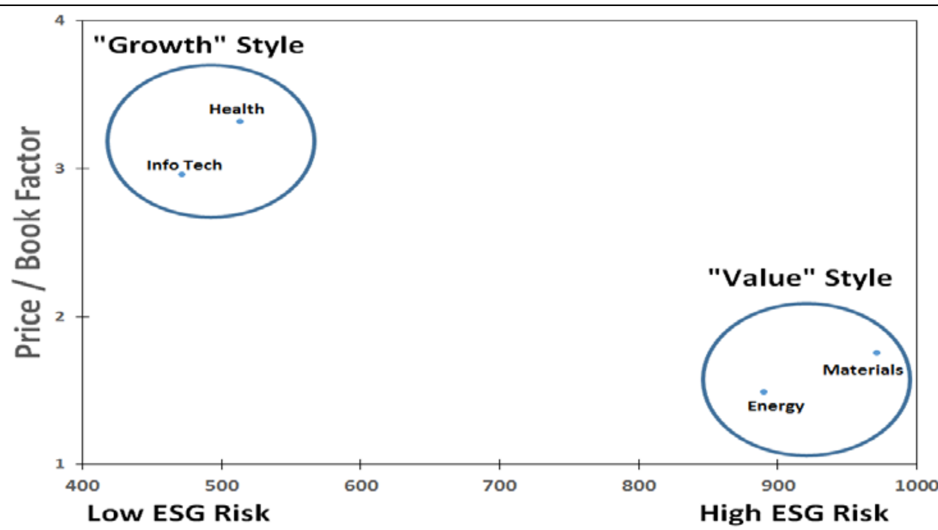
Source: Cornerstone Capital Group

As can be seen, Materials and Energy are toward the top right of Figure 3, implying that the sectors are at high risk of a significant sustainability issue.

Figure 4 provides an illustration of unintended consequences that might occur when style factors are the primary driver of a sector allocation, and material ESG issues are not also taken into account.

- The y-axis of Figure 4 illustrates that, over the past five years, the price-to-book multiples of the Materials and Energy sectors have, on average, been relatively low.
- The x-axis plots ESG risk, which is derived from Figure 3 by multiplying the estimated likelihood that a material sustainability event would occur and the potential financial impact of the event. By this metric, the Materials and Energy sectors have relatively high ESG risk which, as noted below, can be significant for sector weightings.

Figure 4: ESG Risk and Average Price-to-Book Multiples of Four Sectors



Source: Cornerstone Capital Group

In terms of unintended consequences, value investors who *overweight* the Materials and/or Energy sectors may not realize they are significantly increasing their exposure to ESG risks.

Moving from the sector to the stock level, it has been shown that, globally, larger cap companies have tended to have better ESG scores, [4] and that companies with smaller market capitalizations and low price-to-earnings ratios have had lower than average ESG ratings (i.e. higher than average ESG risk). [5] (It has been hypothesized that larger companies have the capital, resources, and processes they can put in place in order to be successful in adopting ESG practices and procedures.)

The Significance of Governance Rankings in Emerging Markets

We referenced above a study that found that "ESG [based stock selection] made a stronger contribution to performance of companies [equities] in emerging markets than those in developed markets." Expanding on that assertion, the study[6] stated that:

- Our examination of incorporation of environmental, social, and governance factors into the stock selection process for two major MSCI indexes finds evidence that ESG factors added value in emerging markets equities but not developed markets equities.

The authors then asked:

- Why was incorporating ESG data into index stock selection so significant in emerging markets?

Their conclusion:

- We would hypothesize that governance quality, which is highly variable in emerging markets, is a key factor.

According to the authors, state-owned enterprises (SOEs) seem to play a large part in explaining the significance of ESG ratings in emerging markets (EMs). SOEs are particularly prevalent in the energy, financial, materials, and telecom sectors in EMs.

ESG ratings for large SOEs have, typically, been relatively low, often due to governance issues. This likely reflects that some SOEs are managed for reasons other than maximizing profits e.g., maintaining employment levels or increasing market share. The same likely holds true for some family-owned businesses, which are also widespread in EMs. It's because of major quality-of-governance issues in emerging markets that ESG-based stock selection can add significant value.

[4] "The Socially Responsible Quant," *Deutsche Bank*, April 24, 2013
[5] "Optimizing Environmental, Social and Governance Factors in Portfolio Construction," *MSCI ESG,* February 2013
[6] "The Value of ESG Data," *Cambridge Associates,* October 2016

The Significance of ESG Rankings in *Certain* Developed Markets

While it was shown that ESG factors — and governance metrics in particular — add value in the stock selection process in emerging markets, that was not shown to be the case for developed markets. That said, not all developed markets are the same. A study[7] that scored 2,000 global companies based on a range of ESG criteria — not just governance metrics — found that:

- Investors could have added…to their investment returns by allocating to portfolios that invest in companies with above-average ESG ratings…Returns from portfolios of European companies represented the largest and most consistent spread between best-in-class and worst-in-class companies, reflecting greater integration of ESG factors in Europe than in the US.

Expanding on that point, the authors stated that it is reasonable to assume a number of contributing factors to the geographical dispersion:

- In Europe, the concept of ESG [is] more embedded in the minds of investors and companies, with investors willing to reward companies that demonstrate best-in-class ESG performance. The European corporate landscape is arguably more transparent, with companies in most jurisdictions compelled to produce sustainability reports allowing greater scrutiny of ESG factors by both investors and regulators.
- In the US, investors are less convinced and/or less knowledgeable about the impact of material ESG factors. Many companies view implementation of and compliance with ESG principles as an opportunity cost rather than as a business opportunity. Shareholders have been known to challenge companies for over-committing to ESG issues.

So, in Europe, relatively abundant ESG information has provided a signal to investors, which has enhanced the stock selection process in that region.

[7] "RCM Sustainability White Paper," *RCM,* July, 2011

Michael Geraghty is the Global Markets Strategist for Cornerstone Capital Group. He has over three decades of experience in the financial services industry including working as an investment strategist at UBS and Citi.

michael.geraghty@cornerstonecapinc.com