The Financial Performance of Sustainability: ESG and Risk

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Key Takeaways

- Evidence that sustainability, or ESG factors, has financial relevance continues to grow – and the evidence is growing more sophisticated.
- As we look for reasons why sustainability seems to be associated with good performance, risk has emerged from the literature as one of the main contributors.
- Climate change and gender equality are two issues that present both risks and opportunities for investors.

Financial markets have bought another ticket to the roller coaster ride this year: volatility is up.

Volatility, if you need a refresher, refers to the magnitude and speed of price changes. A stock is considered volatile if it goes up and down more than other stocks, and markets are volatile when price changes are especially steep and rapid. For many traders, volatility can be exciting, because it gives investors more "right moments" to buy a security at an advantageous price than a monotonically ascending or boringly sideways market. But for most people, volatility feels like risk.

It isn't. Volatility and risk are acquainted, but they're not twins. Risk involves the chance of permanent or long-lasting loss, while volatility is all about gyrations that don't say much about real, fundamental, underlying value. Risk is something investors pay attention to in all market conditions, both serene and volatile.

And risk is something that sustainable investment can really illuminate. There have been several recent additions to the literature on the financial outcomes of sustainable investment that bear directly on risk. Interestingly, while much of the research focuses on sustainability as a whole, there are insights to be gained about risk in each of the three broad areas of sustainable investing: environmental impact, social impact, and corporate governance.

Sustainable Companies, Sustainable Investing

Arguably, risk is one of the major things that distinguishes the modern investment era—characterized by fidelity to Modern Portfolio Theory and the Capital Asset Pricing Model—from the investment equivalent of the age of dinosaurs, when investors quantified returns, but not risk. There is good evidence in some recent research showing that more sustainable companies and funds can help manage risk, without compromising returns.

The CFA Institute's 2017 survey of members found that, of the respondents who did consider ESG issues, by far the top reason was to help manage investment risks. There are some good reasons for that. One aspect of sustainability is recognizing and acting to avoid things—risks—that threaten the continuation of the system we know, including business. The history of finance is in some measure also the history of our understanding of risk, as Peter Bernstein's book, *Against the Gods: The Remarkable Story of Risk*, explains in wonderful detail. Risk, in turn, is a word that encompasses far more than what's on balance sheets and income statements. So, while financial professionals look to the numbers in financial reporting for harbingers of future risk, the idea that all risks are clearly visible from the EDGAR database is just silly.

But there are clues to risk in financial data; the key to recognizing them is to be open to the idea that financial results may be driven, at least in part, by sustainability-related risks, which opens up new pathways for understanding the risk profile of any investment. When a company's market value tanks because of a sexual harassment scandal, or cheating on emissions tests, or an explosion that destroys lives and property, financial professionals' thoughts immediately go to "is this in my portfolio?" closely followed by "could I have seen this coming?" MSCI shows how this can be done, using sustainability profiles to identify poorer performers, who are more likely to incur value-destroying controversies, and leaders, whose lower exposure to systemic risk lowers their costs of capital. That finding is echoed by Sustainalytics, which notes that companies who are better at avoiding such incidents outperformed the global equity market by 11% between 2014 and 2017.

Defaults, in particular, are something investors tend to avoid—or at least see coming, so they can price securities accordingly. By the time a company declares Chapter 11 (or worse, Chapter 7) bankruptcy, the portfolio has already taken its bath, and if it's an equity portfolio, even lawsuits are unlikely to recover anything approaching the company's value pre-collapse. And it turns out that sustainability is a good omen of future defaults, according to a 2017 paper that looked at U.S. firms over a 12-year period from 2000 to 2012. That result was also echoed in Bank of America-Merrill Lynch studies published last year showing that better ESG practices are associated with companies that are “less likely to suffer large price declines,” and that investors who factored ESG into investment decisions starting in 2008 would have avoided 90% of corporate bankruptcies.

There are very few risks that we can predict—in finance or in life—with perfect certainty. Even risks that we understand well—like the risk that smoking will lead to lung disease—have probabilities attached to them. Many a smoker has died at a respectably old age from causes not related to smoking, but knowing the probabilities has also encouraged many people to quit —far more than if we still attributed lung cancer to the vicissitudes of fate or the whim of a deity. Incorporating ESG factors into investment analysis does help us whittle down the acreage of “who knew” in the future, and understand better which companies are riskier than others.

And finally, just in terms of volatility alone, it is also noteworthy that sustainability can help us to avoid speculative bubbles. A recent paper compares the S&P 500 with the Dow Jones Sustainability Index United States (DJSIUS), between 1999 and 2017, looking for evidence of speculative stock bubbles. Over that 18-year period, the S&P 500 experienced seven bubbles, and only one in the DJSIUS. Companies in the DJSIUS have higher sustainability scores on average than the S&P 500.

Environment

It is no secret that environmental disasters can hurt company financial performance; BP and Duke Energy have both served their uncomfortable time as exemplars. But what about everyday environmental impact, the kind that doesn’t necessarily make OMG-inducing headlines?

One of the more interesting recent developments in the literature on the financial impacts of environmental performance concerns climate change. For many years—probably up until the last five or so—when most investors thought about climate risk (if they did) it was probably in terms of regulatory risk. The world introduced carbon prices for the first time when the Kyoto Protocol entered into force in 2005, and for the first time, reducing emissions had monetary value in much of Europe, Japan, and other countries (not including the United States). But climate change presents a myriad of financial risks, including physical risk—just ask any reinsurer if climate change is a factor, and then stand back—litigation risk, reputational risk, and stranded asset risk, in addition to regulatory risk.

Some of these risks are still speculative: for example, while coal reserves are often seen as stranded assets, natural gas is usually not. But others are already playing out in markets, especially insurance markets on coastlines that are increasingly likely to be wetter, and more vulnerable to increasingly severe storms, and other geographies vulnerable to more severe and frequent floods, droughts, and heat waves.

Litigation is also becoming more of a risk, especially for big emitters, and increasingly as science improves its ability to link specific weather events to climate change. There have been nearly 900 lawsuits filed as of March 2017 for liability and damages associated with climate-change-linked weather. And litigation risk is, in turn, linked to lower credit ratings and increased credit spreads.

Soh Young In, Ki Young Park and Ashby H.B. Monk's 2017 paper, "Is 'Being Green' Rewarded in the Market? An Empirical Investigation of Decarbonization Risk and Stock Returns," constructed a carbon-efficient portfolio (that is, a portfolio of the most carbon-efficient firms based on revenue-adjusted greenhouse gas emissions, or carbon intensity) and looked at its returns between 2005 and 2015. The carbon-efficient portfolio outperformed after 2010, and that could not be explained using traditional financial risk factors alone, which means that the outperformance likely is related to the funds' lower impact on climate change, and not coincidental. Moreover, the outperformance was driven not just by a small set of industries—including the well-known underperformance of fossil fuel stocks over the past several years—or variations in oil prices. A hypothetical portfolio with long positions in carbon-efficient firms and shorts on the most carbon-inefficient firms would have earned abnormal returns of 3.5-5.4% per year.

That result is quite compatible with the findings of a paper in 2016 from CSSP and South Pole Carbon, "Climate-friendly investment strategies and performance," that examined the performance of eleven different climate-friendly indices (most or all of which are low-carbon indices) and found that ten of them showed higher returns than their mainstream benchmarks. It also comports well with a recent report from As You Sow and Corporate Knights that found that a global index of the world's largest 200 companies ranked by clean energy revenues outperformed the S&P Global 1200 Energy Index between mid-2016 and the end of 2017 by an impressive margin (nearly double). That is not a long enough timeline to draw strong conclusions, but the report did note, interestingly, that the traditional, fossil fuel energy stocks were starting to be seen now as riskier. Traditionally, clean energy firms have been considered riskier, and many still are, as they are often smaller and newer. But it does seem that the risk picture may be changing in the energy business, in part because of climate change. Results like these are probably connected to EY's recent findings that 90% of the investors who responded to its survey see ESG issues like climate change having "real and quantifiable impacts."

Social and Governance

Gender has truly arrived as an investment issue. Interest in gender as a positive attribute at the board, executive and workforce level has been building for some time, and there has been some very good work done showing that firms with greater gender diversity in decision-making (board and executive management) perform better financially. But over the past six months to a year, gender discrimination and harassment has become a risk issue that warrants serious attention in the sphere of corporate governance. For instance, an article in the Wall Street Journal in March 2018 reported on efforts by a group of pension funds asking corporate boards to do more to fight sexual harassment, and a blog on the Harvard Law School Forum on Corporate Governance and Financial Regulation urged boards to take up sexual harassment as a risk issue, and to develop action plans to avoid incidents.

While this kind of headline risk is always something worthy of investment attention, it is good to see more articles showing that gender diversity itself can be a factor in risk. Certainly, that is something we have noted at Pax with our Global Women's Leadership Index: constructing an index based on gender scores has produced a portfolio that has reliably come out with better risk and quality characteristics than the benchmark.[1] Some interesting new literature may help to illuminate why that might be, and indicate that this is more than a spurious, occasional effect.

One recent paper asked whether gender diversity reduces default risks, and concluded that the answer was "yes," for 831 Australian firms between 2008 and 2013. The paper also found that gender diversity could also help compensate for weak external governance quality, while enhancing internal governance mechanisms—something that could be beneficial in any country, whether governance rules are strong or not.

That works in the U.S. as well, and one thing that investors often appreciate is that it works when markets are down. Another study created and backtested five gender-diverse portfolios based on the top 1,000 US firms between 2002 and 2015, and found that the gender-diverse portfolios had smaller downside risk, or the risk of value losses during market downturns. The portfolios tested use combinations of women on boards and women in management as portfolio construction criteria. Interestingly, focusing just on one aspect of management—the CFO—yielded similar results in another recent paper. The authors focused on the performance of U.S. firms between 2006 and 2015, and found that firms with female CFOs were less likely to have stock price crashes. This is consistent with earlier work that showed that having a female CFO was positively correlated with higher earnings quality.

While none of this work focused on whether there were causal links between gender diversity and risk, one other recent paper illuminated a possible link. The author did a literature review of financial institutions' performance and concluded that they can "mitigate risk by embracing greater gender diversity in leadership ranks," because risk management decision-making is significantly more robust and painstaking in heterogeneous (gender-diverse) groups.

The evidence that sustainability, or ESG, has financial relevance continues to grow. Moreover, it is growing more sophisticated. As we look for reasons why sustainability seems to be associated with good performance, risk has emerged from the literature as one of the main contributors.

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[1]Risk is measured by Standard Deviation, which measures a Fund's variation around its mean performance; a high standard deviation implies greater volatility. The Pax Global Women's Leadership Index 2/28/18 3-year standard deviation is 10.18 compared to 10.42 for the MSCI World Index. Higher quality is measured by Return on Equity (ROE), which measures how efficiently a company (or more specifically, its management team) manages the equity that shareholders have contributed to the company. The Pax Global Women's Leadership Index 02/28/18 ROE is 17.33 compared to 16.35 for the MSCI World Index.

Sustainable Investing

- Manuela von Ditfurth and Andreas Hoepner, “Whitepaper: Sustainable Factor Investing,” Invesco, 2017.
- Guido Giese, Linda-Eling Lee, Dimitris Melas, Zoltan Nagy and Laura Nishikawa, “Foundations of ESG Investing, Part 1: How ESG Affects Equity Valuation, Risk and Performance,” MSCI, November 2017.
- Doug Morrow, Martin Vezér, Andrei Apostol & Kasey Vosburg, “Understanding ESG Incidents: Key Lessons for Investors,” Sustainalytics, December 2017.
- Muhammad Suhail Rizwan, Asfia Obaid, and Dawoon Ashraf, “The Impact of Corporate Social Responsibility on Default Risk: Empirical Evidence from US Firms,” Business & Economic Review 9(3), 2017.
- Savita Subramanian, Dan Suzuki, Alex Makedon, Jill Carey Hall, Marc Pouey, Jimmy Bonilla and James Yao, “ESG Part II: a deeper dive,” Bank of America Merrill Lynch, June 15, 2017.
- Jeff Dunn, Shaun Fitzgibbons, and Lukasz Pomorski, “Assessing Risk through Environmental, Social and Governance Exposures,” AQR, February 24, 2017.
- Richard Paul Gregory, “Does Socially Responsible Corporate Reporting Lead to Less Stock Speculation?” Social Science Research Network, December 22, 2017.

Environmental

- CSSP and South Pole Carbon Asset Management, “Climate-friendly investment strategies and performance,” Commissioned by the Federal Office for the Environment, Climate Division, November 7, 2016.
- As You Sow and Corporate Knights, “Carbon Clean 200: Investing in a Clean Energy Future, 2018 Q1 Performance.”
- EY, “Is your nonfinancial performance revealing the true value of your business to investors?” 2017.

Social and Governance

- Searat Ali, Benjamin Liu and J.J. Su, “Women on Board: Does the Gender Diversity Reduce Default Risk?” 9th Conference on Financial Markets and Corporate Governance (FMCG) 2018, Jan 25, 2018.
- Ming-Tsung Lin and Ser-Huang Poon, “Gender Diverse Portfolios as New Asset Class,” Social Science Research Network, August 9, 2017.
- Yiwei Li and Yeqin Zeng, “The Impact of Top Executive Gender on Asset Prices: Evidence from Stock Price Crash Risk,” Social Science Research Network, March 26, 2018.
- Kristin N. Johnson, “Banking on Diversity: Does Gender Diversity Improve Financial Firms’ Risk Oversight?” Southern Methodist University Law Review, Vol. 80, No. 2, 2017.

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