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Key Takeaways

ESG analysis considers an entity's interactions with the natural world and society, along with the quality of its governance. S&P Global Ratings believes ESG analysis provides a holistic view of potential areas of environmental and social risk and opportunity for companies in rapidly evolving markets. Some empirical data suggest ties between strong performance on environmental, social, and governance (ESG) factors and improved corporate financial performance and investment returns. However, the findings are largely mixed, and relatively few studies have explored these dynamics outside the equity field.

Companies focusing on ESG issues have achieved reduced costs, improved worker productivity, mitigated risk potential, and created revenue-generating opportunities.

These are just some of the ways in which ESG can enhance corporate profits and long-term sustainability. By focusing on a broad suite of stakeholders--beyond shareholders and lenders--ESG analysis can capture remote, less quantifiable risks and opportunities that may not be material to a company's creditworthiness at that time, but can be in the future.

High profile ESG-related controversies have pushed ESG further into the spotlight.

Market participants' increasing scrutiny of ESG also stems, in large part, from mounting awareness of ESG issues and the risks of ignoring them, investor demand for ESG products, a regulatory push for improved disclosure, and momentum generated by investor commitments to the U.N.'s Principles for Responsible Investment. We think that these forces will contribute to the growth of ESG-linked investments over the coming years.

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The Links Between ESG And Financial Performance



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ESG Is Fueling Investment Strategies

Assets invested according to ESG-related strategies reached \$30 trillion in 2018, according to estimates by The Global Sustainable Investment Alliance. This followed a 25% increase to \$23 trillion between 2014 and 2016.

Moreover, millennial investors are reportedly set to inherit an estimated \$30 trillion in wealth in the coming years. A Morgan Stanley study suggests that this group is nearly twice as likely to invest in companies and funds that meet their environmental and social values than the rest of the individual investor population.

With ESG investing on the rise, many market participants are exploring the extent to which ESG credentials can affect and explain financial performance, both in terms of corporate earnings and investment returns.

Studies Show Links Between ESG And Financial Performance

ESG factors can provide valuable insights into possible current and future environmental and social risks and opportunities for corporate entities, given the impact and dependence entities have on the environment and society. These ESG issues in turn have the potential to lead to a direct or indirect financial impact on the entity's profits and investment returns. For example, the degradation of natural ecosystems could limit the future availability of raw materials to

businesses that rely on them for manufacturing. If such a situation is not addressed, it could threaten key production inputs, ultimately constraining business growth for entities that rely on such raw materials.

We incorporate such considerations into our credit rating analysis, if they are sufficiently visible and material, through quantitative financial forecasts or qualitative assessments. As investors embrace ESG as a fundamental part of their investment strategy, they are increasingly exploring whether it translates into improved corporate profits and investment performance. In our view, strong ESG risk awareness and management can contribute to improved long-term corporate financial and investment performance, particularly when material ESG factors are well mitigated. However, further academic research is necessary to determine whether a definitive empirical link exists, especially in the fixed-income sphere, where relatively few academic studies have been undertaken.

Research About ESG And Financial Performance

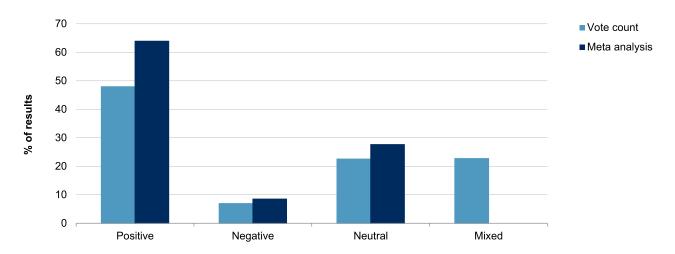
One of the most comprehensive empirical studies on ESG and financial performance conducted by Gunnar Friede, Timo Busch & Alexander Bassen found a positive ESG-Corporate Financial Performance relation (ESG-CFP) in nearly 63% of meta studies and 48% of vote-count studies, with less than 10% reporting a negative finding (see chart 1). The study aggregates the findings from nearly all academic review studies between 1970 and 2014, including 60 individual review studies covering 2,200 primary studies, the vast majority of which are concentrated on equities (87%). It captures a broad view of corporate financial performance, which it defines as accounting-based performance, market-based performance, operational performance, perceptional performance, growth metrics, risk measures, and the performance of ESG portfolios.

Portfolio studies, including those analyzing mutual funds, indices, and long-short portfolios, had the lowest share of positive ESG-CFP correlations (15.5%) and higher levels of mixed (37.4%) and neutral (36.1%) votes compared to non-portfolio studies. Notably, the analysis found a disproportionately high share of positive ESG-CFP results for fixed-income (63.9%) and real estate assets (74.4%; however very few studies (13%) focused on these asset classes.

We note the challenges in generalizing based on such findings. This is because of differences in the methodologies used in the numerous primary studies, ESG investing strategies, and the studies' emphasis on various elements of ESG frameworks across markets, geographies, and industries. Nonetheless, the research argues that "the business case for ESG investing is empirically very well founded."

Chart 1

ESG And Corporate Financial Performance Study Findings Aggregate evidence from more than 2,000 empirical studies



Source: Friede, Busch, Bassen, ESG, and financial performance: aggregate evidence from more than 2,000 empirical studies, Dec. 15, 2015.

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In our view, how a company performs on material individual sustainability factors relevant to their sector can be an important determinant of overall performance. This is because the materiality and impact of ESG indicators can vary depending on industry sector and geography. For example, pollution and land use risks are much more pertinent for a mining company than for a technology company, where social and governance factors may be more relevant. A Harvard Business School study found better future stock performance and higher growth in accounting profitability for firms that did well on material sustainability factors (as defined by the Sustainability Accounting Standards Board) compared with firms with poor performance on these factors over a 20-year period. Conversely, the study found that the future stock returns of those firms that perform well on immaterial sustainability factors do not outperform firms with poor performance on the same issues. And the firms with the best future stock market performance were those with strong performance on material sustainability issues and poor performance on immaterial issues.

Overall studies on this topic currently suffer from a number of limitations. Chiefly, many are based on historical performance data, which is not necessarily an indicator of future performance. In the ESG space, this is particularly relevant because of the volatile nature of ESG issues, which are being shaped by rapidly evolving megatrends such as climate change and demographic shifts. Moreover, ESG investing strategies vary considerably, from negative screening to full ESG integration, and can therefore lead to different desired outcomes. Importantly, there currently are no uniform standards about how to account for and measure ESG factors across the market, which limits the comparability of ESG performance among entities. And although the few studies in the fixed-income field show some potential performance advantage in certain sectors, albeit with some mixed results, the findings of other studies on equities reveal an even greater disparity. These factors mean that it is difficult to draw conclusions solely from the results of previous studies, and further research will therefore be important to watch.

Environmental And Social Factors Can Affect The Bottom Line

Many businesses have understood that better management of environmental and social factors can minimize costs, mitigate risks, or potentially create opportunities to generate revenue. In some sectors, cost structures predominately reflect environment-related costs such as for naturally occurring raw materials, including extraction, procurement, transportation, and energy use, along with social costs such as labor. For example, in the pulp and paper sector, about 50% of costs are for wood and transport, with the remainder comprising mostly chemicals, energy, and labor.

By addressing these environmental factors through, for example, vertical integration and/or moving production facilities closer to suppliers, companies can not only reduce greenhouse gas emissions associated with transport but also decrease some costs, hence delivering both environmental and financial benefits. Additionally, measures to increase resource efficiency across operations and the supply chain can reduce businesses' exposure to volatile commodity markets, rising insurance premiums, and financial products used for hedging purposes.

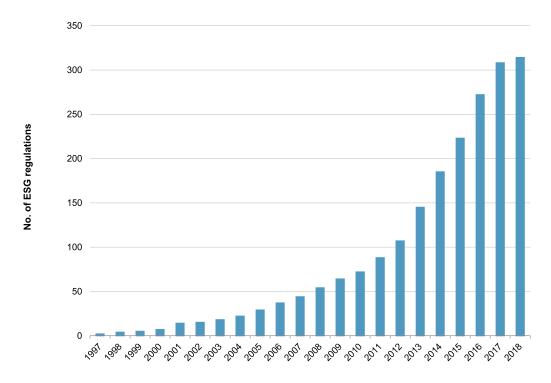
Effective management of social factors also plays an important role in reducing costs, and human resource departments constantly balance the workforce to reduce recruitment and redundancy costs while maintaining the right level of experience and fresh thinking. Nonetheless, some ESG risk-mitigation efforts could result in high capital expenditure, which could neutralize some of the potential gains, especially in the short term.

Social factors have also been shown to enhance revenue generation through, for example, elevating workforce productivity, supporting diversity and a better understanding of customer needs. In 2017, for instance, a group of investors managing \$2.8 trillion in assets petitioned the U.S. Securities Exchange Commission to require better corporate disclosures about human capital management in financial statements, citing the results from a study by human management consultancy Aon Hewitt, which found that a 5% increase in employees' commitment to their employer led to a 3% increase in revenue the following year. Also, the revenue of women-owned businesses in the U.S. has grown by 103% and gender-diverse companies around the globe are 15% more likely to earn more than their competitors, according to data from American Express. In another example. Unilever has demonstrated the value-generating opportunities of its new sustainability-focused brands, which achieved 50% higher growth rates than non-sustainability focused brands in 2016. Although these statistics seem impressive, strong growth is easier to attain in new and small markets because of starting from a lower base.

Moreover, the notion that pollution and shared natural resources require regulatory supervision has begun to spread globally, although the political dynamics, implementation timeframes, specific policy mechanisms, and governance focus continue to vary by region. Increasingly, some policymakers have instituted policies requiring increased and better disclosure from investors and corporates about how they integrate and perform on ESG factors (see chart 2).

Chart 2

The Number Of Global ESG Regulations Is Increasing



Source: UN Principles for Responsible Investment, ESG Regulation Database. Copyright © 2019 by Standard & Poor's Financial Services LLC. All rights reserved.

What's more, over the past few decades, market-based mechanisms for controlling pollution and water resources have been enacted around the world. These range from carbon pricing and cap-and-trade schemes for sulfur dioxide emissions and carbon emissions in parts of North America, Europe, Asia, and the Pacific, to water use in Australia. Additionally, recent advancements and commercialization of satellite and data technologies are allowing remote surveillance of companies' assets and practices, with governments already deploying these technologies to monitor illegal fishing and deforestation. Looking ahead, we anticipate that businesses that better measure and manage the ESG impact of their activities could be more resilient to future ESG-related policies, regulations, and potential reputation risk in unregulated markets.

The Legal And Regulatory Landscape Is Still Unfolding

Changing costs, revenue, and market-based and other policies and regulations are not the only ways ESG factors can influence corporate performance. ESG factors have long been linked to ethical and legal claims. If a company or its employees face allegations tied to ESG events, and the allegations are proven, this can damage the entity's standing. It could also hurt its creditworthiness if the potential damage and cost is sufficiently visible and is considered to be potentially material.

Some companies face litigation and reputation fallout from societal concerns over health, the

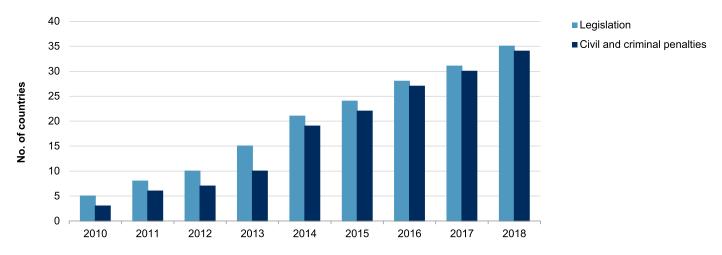
treatment of animals, and climate change. In fact, 1,305 climate-related legal cases filed to date span mitigation, adaptation, and liability, according to a database maintained by the Sabin Center for Climate Change Law at Columbia University. Common law countries such as Australia, U.K., and U.S. are seeing more liability claim filings, typically related to damage to infrastructure and property. For example, the U.S. state of Rhode Island filed lawsuits against numerous oil companies in 2018 seeking to hold them accountable for damages associated with both sea level rise and changes to the hydrologic cycle because of the rise in sea levels and damage to properties in 2005-2017 that could reach \$44.7 million, according to research by First Street Foundation and Columbia University released in January 2019.

Although the results of these cases are highly uncertain and additionally may not be material enough to affect the companies' credit quality in the near term, they could set new precedents for linking damage to specific entities. In October 2018, for instance, The Hague Court of Appeal upheld a 2015 order by the District Court for the Dutch State to accelerate its emissions cuts to meet its 25% reduction goal by 2020 compared with the 1990 level. The Dutch government has announced it will appeal to the Supreme Court, but was still committed to the reduction target and to banning coal-fired electricity generation by 2030. In May 2018, it announced the closure of two of its five coal-fired plants by the end of 2024.

These emerging cases are not only in the environmental space, but also cover other ESG issues such as data privacy, gender equality, and cybersecurity. Over the past 10 years, 35 nations have banned sexual harassment in the workplace, including Argentina, South Africa, Norway, India, and Turkey (see chart 3). Equity investors have also begun to use shareholder resolutions to govern disclosure and action on ESG themes such as the 2019 shareholder resolution with Lamb Weston which addresses disclosure about pesticide use in the company's supply chain. In the face of evolving public policy and regulatory dynamics, technological progress, and new legal frameworks, businesses are confronting a new future in which ESG is an increasingly important driver of financial risk and opportunity.

Chart 3

A Rising Number Of Countries Have Implemented Laws On Sexual Harassment On The Job



Source: World Bank, Women, Business and the Law 2019: A Decade of Reform, 2019 Copyright © 2019 by Standard & Poor's Financial Services LLC. All rights reserved.

ESG And Corporate Creditworthiness

S&P Global Ratings credit ratings express an opinion about the ability and willingness of an issuer to meet its financial obligations in full and on time and incorporate relevant factors-- including relevant and material ESG factors (risks and opportunities) -- that may influence this opinion. Indeed, our ratings have long considered the influence of ESG factors on overall credit quality. There have been numerous instances where ESG factors have led to rating actions (see box: ESG In Corporate Credit Ratings).

ESG analysis also provides a more tightly focused analysis of environmental, social, and governance issues, and may also capture less certain and visible ESG risks and opportunities that may not be significant to a credit rating today, but could become significant in the future, depending on several factors. ESG analysis therefore can complement traditional financial analysis by considering potential future scenarios that could affect a company's credit profile, but are currently uncertain in terms of timing and magnitude. They include, for example, whether business costs will rise if changing regulations require a company to pay for environment-related outputs, such as pollution; or if a shift in social dynamics will have a significant financial impact.

ESG analysis may also capture more esoteric factors, for which it is typically difficult to capture when they could materialize and have an impact. Such risks could be substantial for the company. Because entities could at any time be confronted with a change in environmental and social dynamics, understanding how they perform in these circumstances provides useful information.

ESG In Corporate Credit Ratings

A credit rating is a forward-looking opinion about an obligor's creditworthiness, which focuses on the obligor's capacity and willingness to meet its financial commitments as they come due. We consider ESG issues in the context of our overall analysis of an entity's credit quality.

In our corporate rating criteria, these factors are most often considered through our assessment of an entity's industry risk, competitive position, and in some cases, the financial forecast and cash flow/leverage assessments. Since 2012, we have also implemented separate management and governance criteria.

Where we have a good degree of visibility and certainty about the timing and potential impact of material ESG risks or opportunities, we may incorporate them into our credit analysis. In fact, ESG factors led to 225 corporate credit rating changes between 2015 and 2017, and ESG issues were referenced as analytical considerations in 1,325 rating reports.

Bracing For Change

As climate change continues to affect global economies, technological advancements accelerate, and the world becomes more linked, companies and communities are becoming intertwined in more ways than ever before. What is clear is that the future will likely look very different from today. Therefore, there is value in forward-looking analysis that captures stakeholder interests and various future scenarios relevant to the sector and country where a company operates.

With ESG considerations becoming more prominent and investors increasingly looking to ESG performance as a means to differentiate among companies, the question of how ESG relates to corporate and investment performance will remain high on the agenda. At present, we believe that ESG performance can provide valuable insights into a company's financial and investment performance; however, the empirical evidence is mixed and more research is necessary, particularly in the fixed-income market.

Nevertheless, in our view, ESG analysis can help uncover a number of potential long-term financial risks and opportunities, including the possible impact of future carbon regulations and cost savings linked to better use of resources. It's clear that an independent and consistent measurement of nonfinancial metrics could help shed more light on investment and corporate performance in the near to long term.

Fundamentally, an examination of a company's focus on ESG, the ways in which its business interacts with the environment and society over the long term, and its governance structure complement traditional financial analysis, providing a deeper understanding of corporate performance in an increasingly uncertain world.

Related Research

- ESG and financial performance: aggregated evidence from more than 2000 empirical studies (2015), Gunnar Friede, Timo Busch & Alexander Bassen, Journal of Sustainable Finance & Investment, 5:4, 210-233, DOI: 10.1080/20430795.2015.1118917
- Principle of Responsible Investments ESG Regulation Database
- Corporate Sustainability: First Evidence on Materiality (2016), Mozaffar Kahn, George Seraferim, and Aaron Yoon, The Accounting Review, Vol. 91, No. 6, pp. 1197-1724
- Sustainable Signals: New Data from the Individual Investor (2017), Morgan Stanley Institute for Sustainable Investing
- The Future of Engagement (2010), Aon Hewitt
- The 2017 State of Women-Owned Businesses Report (2017), American Express
- Unilever, Unilever's Sustainable Living brands continue to drive higher rates of growth, May 15, 2017

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