INTER-AGENCY TASK FORCE ON FINANCING FOR DEVELOPMENT

Recent ESG and Return Studies

ESG AND RETURN – SELECTED EQUITY-BASED RESEARCH PAPERS SINCE 2014		
Aug-18	In, Soh Young and Park, Ki Young and Monk, Ashby H. B., Is 'Being Green' Rewarded in the Market?: An Empirical Investigation of Decarbonization and Stock Returns (August 7, 2018). Stanford Global Project Center Working Paper.	
	This study empirically investigates the risk-return relationship of low-carbon investment and characteristics of carbon-efficient firms. Based on 74,486 observations of 736 US firms from January 2005 to December 2015, the study constructs a carbon efficient-minus-inefficient (EMI) portfolio by carbon efficiency, defined as revenue-adjusted greenhouse gas (GHG) emissions at firm-level. Such portfolio generates positive abnormal returns since 2010 and an investment strategy of "long carbon-efficient firms and short carbon-inefficient firms" would earn abnormal returns of 3.55.4% per year. The only exception is found in small firms. The findings are not driven by a small set of industries, variations in oil price, or changing preferences of bond investors caused by the low-interest-rate regime, starting with the 2008 financial crisis.	
Mar-18	Emily Steinbarth (2018), Materiality Matters, Russell Investments. March 2018	
	The paper shows that not all ESG issues are equal. Actually, less than 25% of data items in traditional ESG scores are considered material for two thirds of all securities in the Russell Global Large Cap Index universe. From their initial research, a significant performance improvement cabe achieved when focusing on stocks that have higher material ESG characteristics.	
May-17	Grewal, Jody, Clarissa Hauptmann, and George Serafeim. " <i>Material Sustainability Information and Stock Price Informativeness.</i> " Harvard Business School Working Paper, No. 17-098, May 2017. (Revised November 2017.)	
	As part of the SEC's revision of Regulation S-K, many investors proposed the mandatory disclosure of sustainability information in the form of ESG data. However, progress is contingent on collecting evidence regarding which sustainability disclosures are financially material. To inform this issue, the authors examine materiality standards developed by the Sustainability Accounting Standards Board (SASB). They find firms voluntarily disclosing more SASB-identified sustainability information have higher stock price informativeness. Changes in material sustainability disclosure are followed by changes in stock price informativeness. The results are stronger for firms with higher exposure to sustainability issues, greater institutional and socially responsible investment fund ownership, and coverage from analysts with lower portfolio complexity.	
Feb-17	Patrick Velte, (2017) "Does ESG performance have an impact on financial performance? Evidence from Germany", Journal of Global Responsibility, Vol. 8 Issue: 2, pp.169-178, https://doi.org/10.1108/JGR-11-2016-0029	
	The study covers a sample of companies listed for the business years 2010-2014 (412 firm-year observations) to evaluate possible links between ESG performance as determined by the Asset4 database of Thomson Reuters and financial performance (Return on Assets [ROA] and Tobin's Q). ESG performance has a positive impact on ROA but no impact on Tobin's Q. Furthermore, by analyzing the three different components of ESG, governance performance has the strongest impact in comparison to environmental and social performance.	
Jan-17	NN Investment Partners and ECCE (European Centre for Corporate Engagement) - The materiality of ESG factors for emerging markets equity investment decisions: Academic evidence	
	The study finds that ESG ratings and changes in ESG ratings help to produce 'high ESG' emerging market portfolios that outperformed their 'low ranked' counterparts, provided that levels of ESG scores are adjusted for sector/country effects prior to stock selection.	

Jan-17	Trinks, P. J., & Scholtens, B. (2017). <i>The opportunity cost of negative screening in socially responsible investing</i> . Journal of Business Ethics, 140(2), 193-208.
	This paper investigates the impact of negative screening on the investment universe as well as on financial performance. It explores the size and financial performance of fourteen potentially controversial issues: abortion, adult entertainment, alcohol, animal testing, contraceptives, controversial weapons, fur, gambling, genetic engineering, meat, nuclear power, pork, (embryonic) stem cells, and tobacco and investigates an international sample of more than 1,600 stocks for more than twenty years. They analyze the impact of applying negative screens to a market portfolio. Their findings suggest that the choice for negative screening strategies does matter for the size of the investment universe as well as for risk-adjusted return performance. Investing in controversial stocks in many cases results in additional risk-adjusted returns, whereas excluding them may reduce financial performance.
Nov-16	Mozaffar Khan, George Serafeim & Aaron Yoon, "Corporate Sustainability: First Evidence on Materiality", (9 November 2016), The Accounting Review, Vol. 91, No. 6, pp. 1697–1724.
	The paper tests the importance of different sustainability issues across industries. Exploiting newly available materiality classifications of sustainability issues from SASB, the study associates issues classified as material for industries into firm-specific sustainability ratings. The sample comprises 2307 unique US firms for the period 1993–2013 and KLD data are used for sustainability ratings. They found that not all sustainability issues are equally material: firms with good ratings on material sustainability issues – but not on immaterial issues - significantly outperform firms with poor ratings on these issues and those that perform well on both material and immaterial issues.
Sep-16	Eccles, Robert G. and Verheyden, Tim and Feiner, Andreas, <i>ESG for All? The Impact of ESG Screening on Return, Risk, and Diversification</i> (Spring 2016). Journal of Applied Corporate Finance, Vol. 28, Issue 2, pp. 47-55, 2016. Available at SSRN: https://ssrn.com/abstract=2808224
	The authors tested the effects of using different ESG filters on an investable universe that serves as the starting point for a fund manager. The authors report positive contribution to risk-adjusted returns when using a 10% best-in-class ESG screening approach (one that effectively removes companies with the lowest 10% of ESG rankings), both on a global and a developed markets universe.
Jul-16	Credit Suisse (2016), <i>ESG-Alpha: I am a Material Girl,</i> Equity Research, Asia Pacific/ Australia https://research-doc.credit-suisse.com/docView?language=ENG&format=PDF&source_id=em&document_id=1063708251&serialid=XvWD6b qS%2FTuZiGA4o89ILWBIIhTx9Ss5Rsa%2FgSoBaEc%3D&cspId=&toolbar=1
	The study assessed the importance of considering materiality and the impact of different approaches to materiality by comparing a base case with MSCI and SASB's frameworks, using MSCI data. They found that considering materiality supported performance, with both frameworks improving returns for our ESG strategy. Incorporating these materiality frameworks improved performance in our long-short strategy by between 8.2 and 36.0 percentage points across the 2006-16 performance period. A strategy based on SASB's framework out-performs MSCI's framework by 27.8 percentage points, but has more mixed results historically.
Mar-15	Morgan Stanley (2015), Sustainable reality: understanding the performance of sustainable investment strategies.
	This paper finds that investing in sustainability has usually met, and often exceeded, the performance of comparable traditional investments. This is on both an absolute and a risk-adjusted basis, across asset classes and over time, based

This paper finds that investing in sustainability has usually met, and often exceeded, the performance of comparable traditional investments. This is on both an absolute and a risk-adjusted basis, across asset classes and over time, based on our review of US-based Mutual Funds and Separately Managed Accounts. Sustainable equity Mutual Funds had equal or higher median returns and equal or lower volatility than traditional funds for 64% of the periods examined.

Oct-15 Friede, Gunnar and Busch, Timo and Bassen, Alexander, *ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies* (October 22, 2015). Journal of Sustainable Finance & Investment, Volume 5, Issue 4, p. 210-233, 2015

The search for a relation between ESG criteria and corporate financial performance (CFP) can be traced back to the beginning of the 1970s. Scholars and investors have published more than 2,000 empirical studies and several review studies on this relation since then. This study extracts all provided primary and secondary data of previous academic review studies and combines finding about 2,200 individual studies. The results show that the business case for ESG investing is empirically very well-founded. Roughly 90% of studies find a non-negative ESG-CFP relation. More importantly, the large majority of studies reports positive findings.

Oct-16 N. C. Ashwin Kumar & Camille Smith & Leïla Badis & Nan Wang & Paz Ambrosy & Rodrigo Tavares, 2016. "ESG factors and risk-adjusted performance: a new quantitative model," Journal of Sustainable Finance & Investment, Taylor & Francis Journals, vol. 6(4), pages 292-300, October.

This paper introduced a new mathematical analysis, which demonstrates that companies incorporating ESG factors show lower volatility in their stock performances than their peers in the same industry, that each industry is affected differently by ESG factors, and that ESG companies generate higher returns. The study assessed, for a period of 2 years, 157 companies listed on the Dow Jones Sustainability Index and 809 that are not.

Jun-15 Zoltán Nagy, Altaf Kassam, Linda-Eling Lee, 2015. Can ESG add alpha? An Analysis of ESG Tilt and Momentum Strategies, MSCI ESG Research Inc.

This papers analyzes stock returns of two strategies constructed using MSCl's ESG data: The "ESG Tilt" strategy overweights stocks with higher ESG ratings; The "ESG Momentum" strategy overweights stocks that have improved their ESG rating over recent time periods. The paper finds that both of these strategies outperformed the global benchmark over the last eight years, while also improving the ESG profile of the portfolios. Furthermore, a significant part of their outperformance was not explained by style factors, and thus may have been attributable to ESG factors. However, some of the less significant active factor exposures were quite stable and persistent, and thus also contributed to the performance of the portfolios.

Mar-15 Clark, Gordon L. and Feiner, Andreas and Viehs, Michael, *From the Stockholder to the Stakeholder: How Sustainability Can Drive Financial Outperformance* (March 5, 2015).

This meta-study reviews more than 200 different sources and found a remarkable correlation between diligent sustainability business practices and economic performance. The first part of the report explores this thesis from a strategic management perspective, with remarkable results: 88% of reviewed sources find that companies with robust sustainability practices demonstrate better operational performance, which ultimately translates into cashflows. The second part of the report builds on this, where 80% of the reviewed studies demonstrate that prudent sustainability practices have a positive influence on investment performance.

Jun-14 RobecoSAM SI Research & Development and Robeco Quantitative Strategies, "Alpha from Sustainability," RobecoSAM White Paper (June 2014).

The paper investigated whether a portfolio of sustainability leaders in each industry (identified by RobecoSAM Corporate Sustainability Assessment data – around 2000 companies) outperform a portfolio with sustainability laggards. They found a positive relationship between sustainability and financial performance, as measured by stock returns.

ESG AND RETURN – SELECTED FIXED INCOME-BASED RESEARCH PAPERS SINCE 2014

May-18 Amiraslani, Hami and Lins, Karl V. and Servaes, Henri and Tamayo, Ane, *The Bond Market Benefits of Corporate Social Capital*. European Corporate Governance Institute (ECGI) - Finance Working Paper No. 535/2017. Available at SSRN: https://ssrn.com/abstract=2978794

They investigate whether a firm's social capital, and the trust that it engenders, are viewed favorably by bondholders. Using firms' corporate social responsibility (CSR) activities to proxy for social capital, we find no relation between CSR and bond spreads over the period 2005-2013. However, during the 2008-2009 financial crisis, which represents a shock to trust and default risk, high-CSR firms benefited from lower bond spreads. During the crisis, high-CSR firms were also able to raise more debt at lower spreads, better credit ratings, and longer maturities.

Apr-18 Inderst, G. and Stewart, F., *Incorporating Environmental, Social and Governance (ESG) Factors into Fixed Income Investment*. World Bank Group publication, April 2018.

A growing body of research shows that Environmental, Social and Governance (ESG) factors are material credit risk for fixed income investors. The evidence suggests that incorporating ESG into fixed income investing should be part of the overall credit risk analysis and should contribute to more stable financial returns. It also dispels the myth that incorporating ESG means having to sacrifice financial returns. ESG investing is increasingly becoming part of the mainstream investment process for fixed income investors, as opposed to a specialist, segregated activity, often confined to green bonds.

Nov- 2017	Falsarone, A., Vanden Assem R. (2017), Managing Sustainability Risks in Developed Markets Fixed Income, PineBridge Investments.
	As corporate sustainability reporting becomes standardized, investors will be able to quantify the potential effects of sustainability issues on their portfolios in terms of their cost of capital implications. The authors have found that, for developed credit markets, a handful of sustainability factors are likely to capture the most upside, as opposed to a resource-intensive analysis of all possible scenarios. Through the lens of a sector-specific materiality-driven screening, they introduce a set of proprietary key risk indicators (KRIs) which capture those indirect, non-financial risks that are most likely to result in a financially meaningful outcome. By aligning their reference universe with metrics of sustainability risk such as the KRIs, asset owners can employ environmental, social, and governance (ESG) issues as both risk diversifiers and alpha enhancers in their portfolios.
Q2- 2017	Hermes (2017), <i>Pricing ESG Risk in Credit Markets</i> , Hermes Research paper, Q2 2017.
	To price ESG risk, the authors uses Hermes' proprietary measure of ESG risk – the QESG Score – for companies and compares each issuer's QESG Score with the spreads on their CDS to identify persistent correlations. They found that companies with the lowest QESG Scores tend to have the widest CDS spreads. Given the positive relationship between QESG Scores and spreads, they can create a pricing model that can be used to quantify the contribution of ESG risk to credit spreads. They also found that credit ratings do not perfectly accurately reflect ESG risks and thereby do not serve as a sufficient proxy for ESG risk.
Mar-17	Hoepner, Andreas G. F. and Nilsson, Marcus, <i>No News Is Good News: Corporate Social Responsibility Ratings and Fixed Income Portfolios.</i> 2017. Available at SSRN: https://ssrn.com/abstract=2943583
	This paper explores if a trading strategy in bonds, based on ESG ratings on the issuing company, lead to abnormal returns. Using a sample of 5240 bonds from 425 US companies during the period January 2001 to December 2014 and ESG ratings provided by KLD, this paper finds that bonds issued by companies with no strengths, no concerns, and no controversies significantly outperform the market benchmark. These findings are particularly strong in times of market turmoil, and results are shown to be robust when controlling for differences in remaining maturity. Bonds are priced on the perception of riskiness, and no news appears to result in investors perceiving them as less risky over time while news seems to result in investors perceiving them as riskier.
2016	Barclays (2016), Sustainable investing and bond returns. Impact Series 01.
	The research into the impact of ESG on the performance of US investment-grade corporate bonds in the past seven years has shown that portfolios that maximize ESG scores while controlling for other risk factors have outperformed the index, and that ESG-minimized portfolios underperformed. The effect was most pronounced for the Governance tilt and least pronounced for the Social tilt. Favouring issuers with strong Environmental or Social rating has not been detrimental to bond returns. These conclusions hold using ESG ratings data from two different ratings providers, despite significant differences between the two ratings methodologies.
Oct-15	Hsu, F. and Chen, Y. (2015) <i>Is a firm's financial risk associated with corporate social responsibility?</i> Management Decision, Vol. 53 Issue: 9, pp.2175- 2199.
	The purpose of this paper is to examine whether socially responsible firms behave differently from other firms in terms of financial risk using US-based firms. The authors used the KLD social performance rating scores as the measure of corporate social responsibility (CSR) performance and obtained an initial sample of 38,158 firm-year observations from 1991 to 2012. The authors find that social responsible firms usually perform better in terms of their credit ratings and have lower credit risk, in terms of loan spreads when compared to corporate bond spreads, and in terms of distance to

default.