FROM THE STOCKHOLDER TO THE STAKEHOLDER

HOW SUSTAINABILITY CAN DRIVE FINANCIAL OUTPERFORMANCE

GORDON L CLARK

Director, Smith School of Enterprise and the Environment, University of Oxford

ANDREAS FEINER

Head of Values Based Research and Advisory, Arabesque Asset Management Ltd

MICHAEL VIEHS

Research Fellow, Smith School of Enterprise and the Environment, University of Oxford

SEPTEMBER 2014

UNIVERSITY OF OXFORD

Arabesque Partners

ENDORSEMENTS

"A truly important study, showing how financial performance goes hand in hand with good governance, environmental stewardship and social responsibility."

Georg Kell
Executive Director
UN Global Compact

"This report strips bare the misplaced myths around sustainable investment, clearly demonstrating that ESG can add significant value for companies and investors."

James Gifford
Founding Executive Director
Principles for Responsible Investment

"Increasing attention is being paid to extra financial statement factors in determining the value and the quality of companies. This report is what every person interested in the ESG field and every investor should have on their desk – it is clear, comprehensive (wonderful reference materials), free of jargon and above all persuasive as to the need to take into account the impact of ESG elements."

Robert A.G. Monks
Founder of ISS, Hermes Lens Focus Fund, Lens Fund and GMI (formerly The Corporate Library, now part of MSCI ESG Research)

"I welcome and recommend this report as a supporting study for all Japanese investors and corporate executives who proactively address ESG issues and stakeholder dialogues following the recent introduction of the Japanese Stewardship Code."

Masaru Arai
Chair
Japan Sustainable Investment Forum

"This report shows the solid effect of corporate sustainability practices on companies' cost of capital, operating and stock performance. Such convincing findings may be ground-breaking in the sense that the study may contribute to ending the hesitations related to benefits of or at least reluctance to ESG issues."

Ibrahim Turhan
Chairman & CEO
Borsa Istanbul

"The report shows that shareholder engagement is an effective way to invest responsibly, and that it enhances long-term corporate performance, and ultimately shareholder value."

Rob Bauer
Professor of Finance
Maastricht University

"Thanks to the leadership of some companies we now have a wealth of evidence supporting the idea that corporate financial performance should not be at odds with the interests of other stakeholders."

George Serafeim
Associate Professor of Business Administration
Harvard Business School

"The integration of environmental, social and governance factors into corporate and investment decision making has been gathering momentum over the last decade. This well-researched report succinctly highlights one of the key drivers underpinning this shift: sustainability and financial performance are linked. This piece eloquently explores why, now more than ever, sustainability should be on the agenda of senior executives and investment professionals alike."

Michael Jantzi
CEO
Sustainalytics

"I welcome this report, which provides a good survey of research into the economic benefits of corporate sustainability. Importantly, it suggests that owners of the business are key to good corporate governance and that active ownership can contribute to financial and investment performance."

Colin Melvin
CEO
Hermes Equity Ownership Services

"From The Stockholder To The Stakeholder highlights the increasing global awareness of ESG issues among a broad range of stakeholders and emphasizes the business case for the integration of ESG into all aspects of business."

Philipp Aeby
CEO
RepRisk AG

ABOUT

SMITH SCHOOL OF ENTERPRISE AND THE ENVIRONMENT

The Smith School of Enterprise and the Environment is a leading international academic programme focused upon teaching, research, and engagement with enterprise on climate change and long-term environmental sustainability. It works with social enterprises, corporations, and governments; it seeks to encourage innovative solutions to the apparent challenges facing humanity over the coming decades; its strengths lie in environmental economics and policy, enterprise management, and financial markets and investment. The School has close ties with the physical and social sciences, including with the School of Geography and the Environment, the Environmental Change Institute, and the Saïd Business School.

Arabesque Partners

Arabesque Asset Management was established in June 2013 through a management buy-out from Barclays Bank PLC, which developed the technology from 2011 to 2013 in cooperation with professors from the universities of Stanford, Oxford, Cambridge, Maastricht and the German Fraunhofer Society for the advancement of applied research.

Arabesque offers a quantitative approach to sustainable investing. It combines state of the art systematic portfolio management technology with the values of the United Nations Global Compact, the United Nations Principles for Responsible Investments (UN PRI), and balance sheet and business activity screening. The integration of ESG research into a sophisticated portfolio management delivers a consistent outperformance.

Led by founder and CEO Omar Selim, Arabesque is headquartered in London and has a large research hub in Frankfurt, together with an Advisory Board of highly respected industry leaders and academics. Arabesque Asset Management Ltd is regulated by the UK Financial Conduct Authority (FCA). Arabesque (Deutschland) GmbH is based in Frankfurt with a focus on research, programming and advisory.

For further information on Arabesque's approach to sustainable investment management please contact Mr Andreas Feiner on +49 69 2474 77610 or andreas.feiner@arabesque.com

CONTENTS

1. Introduction 8

2. Λ Business Case for Corporate Sustainability 9

   2.1 Risk 11

   2.2 Performance 13

   2.3 Reputation 14

3. Sustainability and the Cost of Capital 18

   3.1 Sustainability and the Cost of Debt 18

   3.2 Sustainability and the Cost of Equity 20

4. Sustainability and Operational Performance 25

   4.1 Meta-Studies on Sustainability 25

   4.2 Operational Performance and the ‘G’ Dimension 26

   4.3 Operational Performance and the ‘E’ Dimension 27

   4.4 Operational Performance and the ‘S’ Dimension 28

5. Sustainability and Stock Prices 33

   5.1 Stock Prices and the ‘G’ Dimension 33

   5.2 Stock Prices and the ‘E’ Dimension 34

   5.3 Stock Prices and the ‘S’ Dimension 35

   5.4 Stock Prices and Λggregate Sustainability Scores 36

6. Λctive Ownership 42

7. From the Stockholder to the Stakeholder 44

8. Bibliography 46

FOREWORD

OMAR SELIM

CEO, ARABESQUE ASSET MANAGEMENT

We now live in a world where sustainability has entered mainstream. That much is evident from the fact that over 72% of S&P500 companies are reporting on sustainability, demonstrating a growing recognition of the strong interest expressed by investors.

This report, entitled ***From the Stockholder to the Stakeholder***, aims to give the interested practitioner an overview of the current research on ESG.

In this enhanced meta-study we categorize more than 190 different sources. Within it, we find 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.

This report ultimately demonstrates that responsibility and profitability are not incompatible, but in fact wholly complementary. When investors and asset owners replace the question "how much return?" with "how much sustainable return?", then they have evolved from a stockholder to a stakeholder.

REPORT HIGHLIGHTS

1. Sustainability is one of the most significant trends in financial markets for decades.
2. This report represents the most comprehensive knowledge base on sustainability to date. It is based on more than 190 academic studies, industry reports, newspaper articles, and books.
3. 90% of the studies on the cost of capital show that sound sustainability standards lower the cost of capital of companies.
4. 88% of the research shows that solid ESG practices result in better operational performance of firms.
5. 80% of the studies show that stock price performance of companies is positively influenced by good sustainability practices.
6. Based on the economic impact, it is in the best interest of investors and corporate managers to incorporate sustainability considerations into their decision making processes.
7. Active ownership allows investors to influence corporate behavior and benefit from improvements in sustainable business practices.
8. The future of sustainable investing is likely to be active ownership by multiple stakeholder groups including investors and consumers.

1. INTRODUCTION

Sustainability is one of the most significant trends in financial markets for decades. Whether in the form of investors' desire for sustainable responsible investing (SRI), or corporate management's focus on corporate social responsibility (CSR), the content, focusing on sustainability and ESG (environmental, social and governance) issues, is the same. The growth of the UN Global Compact,[1] the United Nations backed Principles for Responsible Investment (UN PRI),[2] the Global Reporting Initiative (GRI),[3] the Carbon Disclosure Project (CDP),[4] the Sustainability Accounting Standards Board (SASB)[5] and the $13.5tn in assets now managed in a sustainable and responsible manner,[6] all bear strong testament to sustainability concerns. However from an investor's perspective, there exists a debate about the benefits of integrating sustainability criteria into the investment process, and the degree to which it results in a positive or negative return.[7]

This report investigates over 190 of the highest quality academic studies and sources on sustainability to assess the economic evidence on both sides for:

- a business case for corporate sustainability
- integrating sustainability into investment decisions
- implementing active ownership policies into investors' portfolios

This report aims to support decision makers by providing solid and transparent evidence regarding the impact of sustainable corporate management and investment practices. Our findings suggest:

- companies with strong sustainability scores show better operational performance and are less risky
- investment strategies that incorporate ESG issues outperform comparable non-ESG strategies
- active ownership creates value for companies and investors

Based on our results, we conclude that it is in the best economic interest for corporate managers and investors to incorporate sustainability considerations into decision-making processes.

We close the report with the suggestion that it is in the long-term self-interest of the general public, as beneficiaries of institutional investors (e.g. pension funds and insurance companies), to influence companies to produce goods and services in a responsible way. By doing so they not only generate better returns for their savings and pensions, but also contribute to preserving the world they live in for themselves and future generations.

1 For more information on the UN Global Compact, see: www.unglobalcompact.org.
2 Background information on the United Nations backed Principles for Responsible Investment (UN PRI), see: www.unpri.org.
3 See Global Reporting Initiative's website for further information: www.gri.org.
4 See www.cdp.net for more information on Carbon Disclosure Project.
5 For the SASB's mission statement, see www.sasb.org.
6 Global Sustainable Investment Alliance (GSIA) (2013).
7 See, for example, Milton Friedman's view on the social responsibilities of firms (Friedman, 1970) versus R. Edward Freeman's perspective on how firms can take into account the interests of several stakeholders (Freeman, 1984). Subsequently, similar arguments are also made in Jensen (2002). A discussion about the arguments in favor or against the business case can be found in Davis (1973).

2. A BUSINESS CASE FOR CORPORATE SUSTAINABILITY

In 2013, Accenture conducted a survey of 1,000 CEOs in 103 countries and 27 industries. They found that 80% of CEOs view sustainability as a means to gain competitive advantages relative to their peers.[8] Furthermore, the study found that "81% of CEOs believe that the sustainability reputation of their company is important in consumers' purchasing decisions".[9] On the contrary, they found that only 33% of all surveyed CEOs think "that business is making sufficient efforts to address global sustainability challenges".[10]

One reason for this imbalance between acknowledging the importance of sustainability and acting on it is pressure from the financial markets' focus on short-termism.[11] This clearly emerges from another survey conducted on behalf of McKinsey & Company and the Canada Pension Plan Investment Board (CPPIB), in which 79% of C-level executives and board members state that they personally feel "pressure to deliver financial results in two years or less".[12] Tellingly, 86% of them note that this constraint is in contrast to their convictions, where they believe that using a longer time horizon to make business decisions would positively affect corporate performance in a number of ways, including strengthening longer-term financial returns and increasing innovation.[13]

There is however an increasing focus on longer-term thinking: a recent initiative, founded by the Canada Pension Plan Investment Board (CPPIB) and McKinsey, is bringing together business leaders from corporations, pension funds, and asset managers to promote longer-term corporate and investment management.[14] More broadly, numerous corporate leaders are taking decisive steps to implement a longer-term horizon within their companies. For example, under the leadership of its CEO, Paul Polman, Unilever has stopped giving earnings guidance and has moved away from quarterly profit reporting in order to transform the company's culture and shift management's thinking away from short-term results.[15]

Our research demonstrates that there is a strong business case for companies to implement sustainable management practices with regard to environmental, social, and governance (ESG) issues[16]. In other words, firms can 'do

8 Accenture (2013).
9 Accenture (2013: 36).
10 Accenture (2013: 15).
11 See Barton and Wiseman (2014).
12 Bailey, Bérubé, Godsall, and Kehoe (2014: 1).
13 See Bailey, Bérubé, Godsall, and Kehoe (2014: 7).
14 See Bailey, Bérubé, Godsall, and Kehoe (2014). More information can be found at www.FCLT.org.
15 See CBI (2012) and Ignatius (2012).
16 For business case arguments of corporate social responsibility and sustainability, see for example, Davis (1973), Hart (1995), Porter and Kramer (2002, 2006), Porter and van der Linde (1995a, 1995b).

well while doing good'.[17] However, it is imperative that the inclusion of ESG into strategic corporate management is based on business performance.[18]

Sustainability is further important for the public image of a corporation, for serving shareholder interests, and for the pre-emptive insurance effect for adverse ESG events.[19] To put it another way: good ESG quality leads to competitive advantages,[20] which can be achieved through a broader orientation towards stakeholders (communities, suppliers, customers and employees) as well as shareholders.[21] Clearly management cannot meet all demands of all stakeholder groups at the same time. Rather, we suggest that by focusing on profit maximization over the medium to longer term, i.e., shareholder value maximization, and by taking into account the needs and demands of major stakeholders can a company create financial and societal value.[22]

In doing so, companies are required to appreciate the trade-offs that exist between financial and sustainability performance. Firms are required to implement sustainable management strategies that improve both performance measures (for instance through substantial product and process innovation).[23] To achieve this, companies are required first to identify the specific sustainability issues that are material to them. As recent research by Deloitte points out, "materiality of ESG data – like materiality for any input in investment decision-making – should be related to valuation impacts".[24] Table 1 shows a selection of ESG issues that, depending on the individual company in question, can have a material impact.

TABLE 1: SELECTION OF MATERIAL ESG FACTORS[25]

ENVIRONMENTAL ("E")	SOCIAL ("S")	GOVERNANCE ("G")
Biodiversity/land use	Community relations	Accountability
Carbon emissions	Controversial business	Anti-takeover measures
Climate change risks	Customer relations/product	Board structure/size
Energy usage	Diversity issues	Bribery and corruption
Raw material sourcing	Employee relations	CEO duality
Regulatory/legal risks	Health and safety	Executive compensation schemes
Supply chain management	Human capital management	Ownership structure
Waste and recycling	Human rights	Shareholder rights
Water management	Responsible marketing and R&D	Transparency
Weather events	Union relationships	Voting procedures

17 A term used in the CSR context by David Vogel (2005: 19) and by Benabou and Tirole (2010: 9) to describe the 'win-win scenario' of CSR. Corporations adopt superior CSR standards to make the firm more profitable.

18 For a study on executives' perceptions of CSR and its business case, see Berger, Cunningham, and Drumwright (2007).

19 See, for example, Davis (1973), Godfrey (2005), and Godfrey, Merrill, and Hansen (2009).

20 Hart (1995), Hart (1997).

21 Kurucz, Colbert, and Wheeler (2009).

22 Jensen (2002), Porter and Kramer (2011). A similar statement has also been made by Smith (1994).

23 Eccles and Serafeim (2013).

24 Hespenheide and Koehler (2012: 5).

25 The data has been synthesized from several sources, including MSCI (2013), UBS (2013), Bonini and Goerner (2011), Sustainability Accounting Standards Board (2013), Global Reporting Initiative (2013a), and the academic papers reviewed in this report. Table in alphabetical order.

The materiality of environmental, social and governance (ESG) issues differs substantially between industries. For instance, resource-intensive industries such as mining have a different exposure to environmental and social factors[26] than for example the commercial real-estate sector.[27] The Global Reporting Initiative (GRI) compiled a comprehensive overview about sector differences with regard to ESG issues. Over a period of ten years, the Global Reporting Initiative (GRI) has worked with a number of stakeholders to identify the most material ESG issues in different sectors[28] resulting in the G4 Sustainability Reporting Guidelines.[29]

Amongst others, there are three major ways how sustainability through the integration of environmental, social and governance (ESG) issues can lead to a competitive advantage: [30]

1. Risk:
   - *Company specific risks*
   - *External costs*
2. Performance:
   - *Process innovation*
   - *Product innovation*
3. Reputation:
   - *Human capital*
   - *Consumers*

Corporate managers should realize that the critical condition for translating superior ESG quality into competitive advantage is that sustainability has to be deeply rooted in the organization's culture and values. Companies must reframe their identity into organizations that are open to sustainability and encourage innovation to increase productivity. Only once this is done can a corporate culture be changed into a realm in which 'transformational change' can occur.[31]

A selection of case studies show that successful companies which build a competitive advantage from sustainability initiatives have a clear responsibility at the board level, clear sustainability goals that are measurable in quantity and time, have an incentive structure for employees to innovate and external auditors which review progress. Such companies are able to benefit from their sustainability programmes over the medium to longer-term.[32]

2.1 RISK

An analysis of corporate fines and settlements demonstrates the financial impact of neglecting sustainability and ESG issues. In Table 2, we show the ten largest fines and settlements in corporate history, which together amount to $45.5bn.[33] In the financial sector, banks have paid out $100bn in U.S. legal settlements alone since the start of the financial crisis,[34] and global pharmaceutical companies have paid $30.2bn in fines since 1991.[35]

26 See, Miranda, Burris, Bingcang, Shearman, Briones, La Vina, and Menard (2003).
27 World Green Building Council (2013). For an academic discussion of this issue, see also Eccles, Krzus, Rogers, and Serafeim (2012).
28 See Global Reporting Initiative (2013a).
29 Global Reporting Initiative (2013b).
30 Similar to the model developed by Kurucz, Colbert, and Wheeler (2009) and the United Nations Global Compact Value Driver Model (PRI-UN Global Compact, 2013).
31 Eccles, Miller Perkins, and Serafeim (2012).
32 See Loew, Clausen, Hall, Loft, & Braun (2009) for the collection of case studies on sustainability in firms from Germany and the USA.
33 Own research. The University of Oxford and Arabesque are running a database where a neglect of environmental, social and governance (ESG) issues led to payments in excess of USD 100mn through fines or settlements. The analysis of currently 136 cases shows that the sectors which have been most affected are financials, pharmaceuticals, energy, technology and automobiles which represent 90% of all fines and settlements.
34 McGregor and Stanley (2014).
35 See Almashat and Wolfe (2012).

TABLE 2: LARGEST FINES AND SETTLEMENTS CONCERNING ESG ISSUES (JUNE 2014)

COMPANY	YEAR	SECTOR	COUNTRY	IN USD MN	CAUSE	SOURCE
JP Morgan	2013	Financials	USA	13,000	Misleading investors about securities containing toxic mortgages	U.S. Department of Justice
BNP Paribas	2014	Financials	USA	8,970	Illegally processing financial transactions for countries subject to U.S. economic sanctions	U.S. Department of Justice
Anadarko	2014	Energy	USA	5,150	Fraudulent conveyance designed to evade environmental liabilities	U.S. Department of Justice
BP	2012	Energy	UK	4,500	Felony manslaughter: 11 people killed; Environmental crimes: oil spill in the Gulf of Mexico; Obstruction: misstatement of the amount of oil being discharged into the Gulf	U.S. Department of Justice, Securities and Exchange Commission
GlaxoSmithKline	2012	Pharmaceuticals	UK	3,000	Unlawful promotion of certain prescription drugs; Failure to report certain safety data to the FDA; False price reporting practices	U.S. Department of Justice
Credit Suisse	2014	Financials	Switzerland	2,800	Helping U.S. taxpayers hide offshore accounts from the IRS	U.S. Department of Justice
Pfizer	2009	Pharmaceuticals	USA	2,300	Misbranding Bextra (an anti-inflammatory drug that Pfizer pulled from the market in 2005) with the intent to defraud or mislead	U.S. Department of Justice
Johnson & Johnson	2013	Pharmaceuticals	USA	2,200	Off-label marketing and kickbacks to doctors and pharmacists	U.S. Department of Justice
HSBC	2012	Financials	UK	1,900	Failing to maintain an effective anti-money laundering program and failing to conduct appropriate due diligence on its foreign correspondent account holders	U.S. Department of Justice
Siemens	2008	Industrials	Germany	1,600	Bribery; Violation of the Foreign Corrupt Practices Act (FCPA)	Securities and Exchange Commission

Another risk for companies may be external costs (externalities).[36] These can affect production processes either directly or through disruptions in the supply chain which may depend on unpriced natural capital assets such as climate, clean air, groundwater and biodiversity. In the absence of regulation, unpriced natural capital costs usually remain externalized (i.e. are not paid for in the production process) unless events (for example droughts[37] or floods[38]) cause rapid internalization along supply chains through commodity price fluctuation or production disruption. One report estimates the annual unpriced natural capital costs at $7.3tn representing 13% of global economic production.[39] An analysis of the World Economic Forum comes to similar conclusions and identifies water and food crises, extreme weather events as well as a failure of climate change mitigation and adaption amongst the ten global risks of highest concern in 2014.[40]

36 See the OECD's definition of externalities: "Externalities refers to situations when the effect of production or consumption of goods and services imposes costs or benefits on others which are not reflected in the prices charged for the goods and services being provided." (OECD, 2014)

37 See, for example, Ernst & Young (2012).

38 See, for example, Knight, Robins, and Chan (2013).

39 Trucost (2013).

40 World Economic Forum (2014).

Neglecting sustainability issues can have a substantial impact on a company's business operations over the medium to longer term, or suddenly jeopardize the survival of a firm altogether (tail-risks).[41] Risk reduction is a major outcome of successfully internalizing sustainability into a company's strategy and culture.[42] Properly implemented, superior sustainability policies can mitigate aspects of these risks by prompting pre-emptive action.[43] Examples include risks from litigation as well as environmental, financial and reputational risks.[44] The result is a lower volatility of a company's cashflows as the impact of negative effects can be avoided or mitigated. Sustainability activities therefore play an important role in a firm's risk management strategy.[45]

2.2 PERFORMANCE

In an article in the Harvard Business Review, Michael Porter and Claas van der Linde claim that pollution translates to inefficiency. They argue that "when scrap, harmful substances, or energy forms are discharged into the environment as pollution, it is a sign that resources have been used incompletely, inefficiently, or ineffectively."[46] In one example, they examine 181 ways of preventing waste generation in chemical plants, and find that only one of them "resulted in a net cost increase".[47] In other words, process innovation more than offsets costs in 180 out of 181 cases.[48] For this reason, many companies are implementing long-term sustainability programs and reaping resulting benefits. For example, Coca-Cola has reduced the water intensity of their production process by 20% over the last decade.[49] Another example is Marks and Spencer who introduced 'Plan A' to source responsibly, reduce waste and help communities, thereby saving the firm $200mn annually.[50]

A recent study by PricewaterhouseCoopers claims that "sustainability is emerging as a market driver with the potential to grow profits and present opportunities for value creation — a dramatic evolution from its traditional focus on efficiency, cost, and supply chain risk".[51] In that respect, sustainable product innovation can have a substantial impact on a company's revenues. Revenues from "Green Products" at Philips, a diversified Dutch technology company, reached EUR 11.8bn representing a share of 51% of total revenues. Philips' "Green Products" offer a significant environmental improvement on one or more "Green Focal Areas": energy efficiency, packaging, hazardous substances, weight, recycling and disposal and lifetime reliability.[52] Another innovative company, LanzaTech, has come up with a microbe as a natural biocatalyst[53] that can capture CO_2 and turn it into ethanol for fuel.[54] The firm has a partnership with Virgin Atlantic, who believe that such innovation will assist the airline in meeting its pledge of a 30% carbon reduction per passenger kilometre by 2020.[55]

Moreover, research by the auditing company Deloitte argues that "sustainability is firmly on the agenda for leading companies and there is growing recognition that it

41 See, for example, Schneider (2011) who argues that poor environmental performance can threaten the company's long-run survival. See also Husted (2005) for a discussion of how corporate social responsibility could be seen as a real option to firms which can reduce the significant downside risks corporations are exposed to.
42 Kurucz, Colbert, and Wheeler (2009).
43 This risk reduction feature of ESG has also been documented by Lee and Faff (2009), who show that firms with superior sustainability scores have a substantially lower idiosyncratic risk. Similar findings are provided by Oikonomou, Brooks, and Pavelin (2012). The insurance value of CSR against risks has also been stressed by Godfrey (2005), Godfrey, Merrill, and Hansen (2009), and Koh, Qian, and Wang (2013).
44 See, for example, Bauer and Hann (2010). Additionally, Karpoff, Lott, and Wehrly (2005) show that the market punishes violations of environmental regulation. In particular, they conclude that on average, stock prices decrease by 1.69% in cases of alleged violation.
45 See, for example, Minor and Morgan (2011).
46 Porter and van der Linde (1995a: 122).
47 Porter and van der Linde (1995a: 125).
48 Porter and van der Linde (1995a).
49 Coca-Cola Company (2013).
50 Marks and Spencer Group Plc (2014).
51 PricewaterhouseCoopers (2010: 2).
52 Philips (2014).
53 Lanzatech (2014).
54 Wills (2014).
55 Virgin (2012).

is a primary driver for strategic product and business model innovation."[56] This can create a positive impact on financial performance.[57] By incorporating ESG issues into a corporate sustainability framework, corporations will ultimately be able to realize cost savings through innovation, resource efficiency, and revenue enhancements via sustainable products, which ceteris paribus should lead to margin improvements.[58]

2.3 REPUTATION

Research points to the importance of corporate reputation as an input factor for persistent value maximization.[59] Human capital is one of the core resources that companies leverage in order to operate and deliver goods/services to customers.[60] Good reputation with respect to corporate working environments can also translate into superior financial performance and help gain a competitive advantage.[61] This has also been pointed out by Alex Edmans, Professor of Finance at the London Business School. In his study on the relationship between employee satisfaction and corporate financial performance, he argues that "a satisfying workplace can foster job embeddedness and ensure that talented employees stay with the firm".[62] Furthermore, he claims that "a second channel through which job satisfaction can improve firm value is through worker motivation".[63] An independent way to ascertain the reputation of a company in terms of workforce attraction can be found in external surveys such as Fortune's Best Companies To Work For[64] and on more granular regional lists like Great Place To Work.[65]

Inferior ESG standards can pose a threat to a company's reputation. For example, Barilla Pasta President Guido Barilla's comment in 2013 that he'd never consider showing gay families in his advertisements resulted in a consumer boycott.[66] Barilla was heavily criticized in social media with over 140 thousand consumers signing a petition against buying Barilla's products.[67] Another example is a recent report by The Guardian on slavery in Thailand's shrimp industry which started a discussion on labour conditions in Thailand.[68] As a direct result of the issues raised, global supermarket chains reacted publicly to avoid business fallout, engaging with the local producers to improve labour working conditions.[69] Other widely reported examples include Foxconn[70] and the tragic textile factory collapse in Bangladesh in 2013.[71] Transparency on a company's supply chain is not always complete and consumers, investors, and other stakeholders are often required to approximate the quality of a company's supply chain. However, responsibility for such issues at the board level, transparent goals, and external auditors who monitor progress, are good indicators that a company is managing ESG risks. Furthermore active participation in multilateral sustainability initiatives can indicate the level of importance sustainability issues represent to a company.[72]

56 Deloitte Global Services Limited (2012: 1).

57 Porter and Kramer (2006) and Eccles, Miller Perkins, and Serafeim (2012) stress this. Greening and Turban (2000) also point out that superior CSR practices can be a competitive advantage in that firms can more easily attract the best and most talented people for their workforce, which then potentially translates into higher productivity and efficiency, and in the end better operational performance. Also, Hart and Milstein (2003) argue that corporate sustainability is a crucial factor for the long-term competitiveness of corporations.

58 Eccles and Serafeim (2013), Porter and van der Linde (1995a, 1995b).

59 See, for example, Roberts and Dowling (2002).

60 Eccles and Serafeim (2014).

61 Edmans (2011, 2012).

62 Edmans (2012: 1-2).

63 Edmans (2012: 2).

64 The annual lists of the best companies to work for are published on Fortune's website at: http://fortune.com/best-companies.

65 For more details consult the website of Great Place To Work: http://www.greatplacetowork.com.

66 Adams (2014).

67 Moveon.orgPetitions (2014).

68 Hodal, Kelly, and Lawrence (2014) and Watts and Steger (2014).

69 Lawrence (2014).

70 Economist (2010).

71 Butler (2013).

72 Exemplary initiatives are, for example, Roundtable on Sustainable Palm Oil (http://www.rspo.org), UN Global Compact's The CEO Water Mandate (http://ceowatermandate.org), Sustainable Food Laboratory (http://www.sustainablefoodlab.org), Sustainable Apparel Coalition (http://www.apparelcoalition.org), Voluntary Principles on Security and Human Rights (http://www.voluntaryprinciples.org).

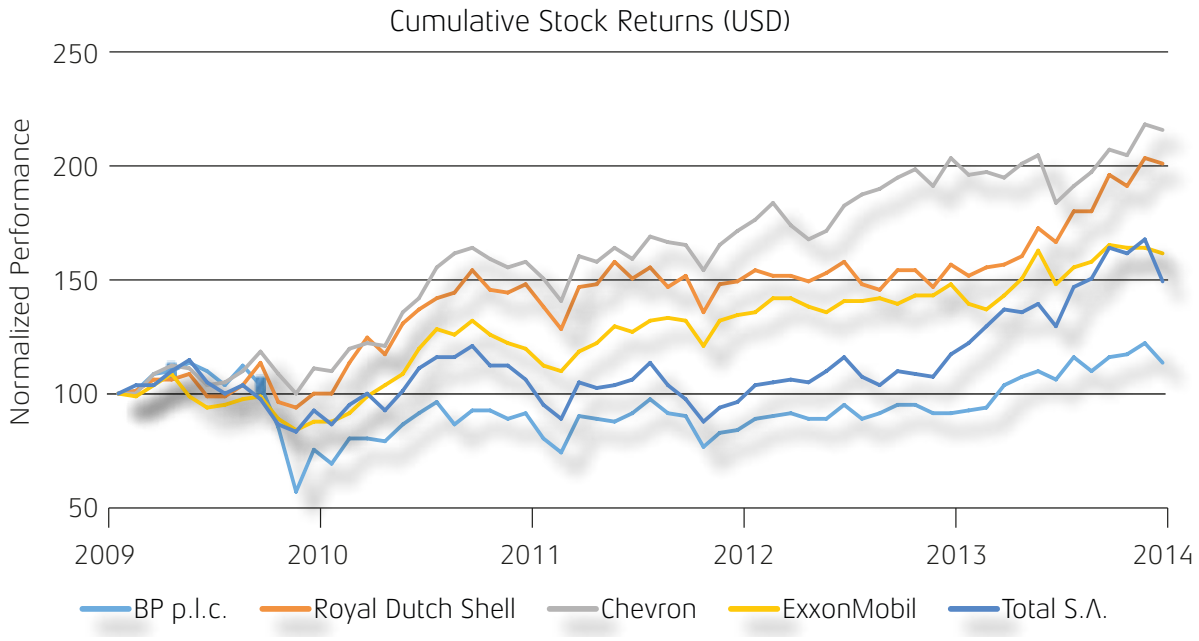
CASE STUDY: BRITISH PETROLEUM

BP's Deepwater Horizon 2010 oil spill in the Gulf of Mexico is the most high-profile recent example of how environmental risks can have meaningful financial consequences. Indeed, the company suffered not only financially, but also from a reputational and legal perspective. The total costs to BP are hard to estimate with accuracy. The Economist estimates $42bn in clean-up and compensation costs[73] whereas the Financial Times estimates that the clean-up costs alone may amount to $90bn.[74]

BP's share price lost 50% between 20 April 2010 and 29 June 2010 as the catastrophe unfolded. In the wake of the disaster, a peer group of major oil companies lost 18.5%. Since the disaster, BP's share price has underperformed the peer group by c. 60%[75]

Astute ESG investors would have avoided investing in BP at the time of the oil spill. Notably, two years before the spill happened there was severe criticism of the company's performance in environmental pollution, occupational health and safety issues, negative impacts on local communities and labour issues, according to RepRisk.[76] Additionally, MSCI excluded BP (in 2005) from their sustainable equity indices after the Texas City explosion[77] and a perceived lack of action from BP on health and safety issues.[78]

FIGURE 1: BP'S SHARE PRICE COMPARED TO OTHER OIL MAJORS



73 The Economist (2014), p. 59.
74 Chazan and Crooks (2014).
75 Own calculations, based on data from Factset. As of August 2014.
76 Cichon and Neghaiwi (2014).
77 See the website of the BP's Texas City Explosion for further details
78 Based on personal communication with MSCI's research team on August 20, 2014.

SUMMARY

We have investigated the strategic importance of sustainability topics such as environmental, social and governance (ESG) issues for corporations. The main conclusions of the reviewed research are:

- Sustainability topics can have a material effect on a company's risk profile, performance potential and reputation and hence have a financial impact on a firm's performance.
- Product and process innovation is critical to benefit financially from sustainability issues.
- Different industries have different sustainability issues that are material for financial performance.
- Medium to longer-term competitive advantages can be achieved through a broader orientation towards stakeholders (communities, suppliers, customers and employees) and shareholders.
- The management of sustainability issues needs to be deeply embedded into an organization's culture and values. Particular mechanisms mentioned by researchers include:
  - *responsibility at the board level (ideally the CEO),*
  - *clear sustainability goals that are measurable in quantity and time,*
  - *an incentive structure for employees to innovate and*
  - *external auditors which review progress.*
- Table 3 presents the most important academic papers on the business case of sustainability.

TABLE 3: OVERVIEW OF STUDIES ON THE BUSINESS CASE FOR SUSTAINABILITY (SUBJECTIVE SELECTION)

AUTHOR(S)	YEAR	JOURNAL	TITLE
Davis	1973	Academy of Management Journal	The Case for and Against Business Assumption of Social Responsibilities.
Eccles and Serafeim	2013	Harvard Business Review	The Performance Frontier.
Hart	1995	Academy of Management Review	A Natural-Resource-Based View of the Firm.
Porter and Kramer	2002	Harvard Business Review	The Competitive Advantage of Corporate Philanthropy.
Porter and Kramer	2006	Harvard Business Review	Strategy and Society: The Link Between Competitive Advantage and Corporate Social Responsibility.
Porter and van der Linde	1995	The Journal of Economic Perspectives	Toward a New Conception of the Environment-Competitiveness Relationship.
Porter and van der Linde	1995	Harvard Business Review	Green and Competitive.

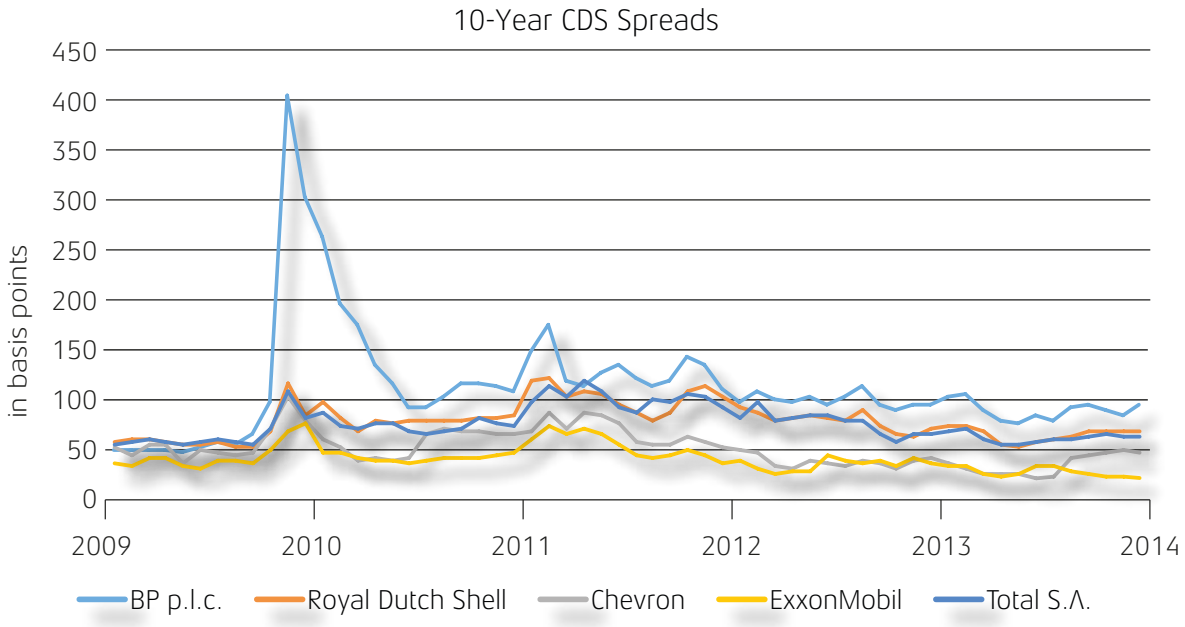
3. SUSTAINABILITY AND THE COST OF CAPITAL

This section reviews the effects of sustainability on the cost of capital, which is directly linked to a company's risk level and profitability. For our analysis we have split the cost of capital into two component parts, the cost of debt and the cost of equity. For each we analyse the relationship of environmental, social and governance issues separately. A summary at the end gives an overview of the reviewed empirical studies.

3.1 SUSTAINABILITY AND THE COST OF DEBT

Case studies and academic literature are clear that environmental externalities impose particular risks on corporations – reputational, financial, and litigation related – which can have direct implications for the cost of financing, especially for a firm's cost of debt.[79]

FIGURE 2: COMPARISON OF CREDIT SPREADS



79 Bauer and Hann (2010).

Evidence suggests that by implementing reasonable environmental, social, and governance (ESG) policies to mitigate such risks, companies can benefit in terms of lower cost of debt (i.e. credit spreads).[80]

To illustrate how an environmental disaster can affect a corporation's cost of debt, BP's credit spread development since the Deepwater Horizon catastrophe in April 2010 is shown in Figure 2. After the incident, the 10-year credit spread of BP increased eightfold. 10-year credit spreads of a group of major oil companies were also affected by the disaster but less severely. At the time of writing, BP's 10-year credit spread is 95 basis points versus 50 basis points before the spill happened. The comparable spreads of the other major oil companies have returned to levels prior to the disaster.

3.1.1 COST OF DEBT AND THE 'G' DIMENSIONS

Academic literature has specifically investigated the effects of corporate governance on cost of debt, and the conclusions are relatively clear: good corporate governance pays off in terms of reduced borrowing costs (i.e. credit spreads). It has been documented that certain governance measures have a significant impact on a firm's cost of debt, for example, the degree of institutional investor ownership,[81] the proportion of outside directors on the board,[82] the disclosure quality,[83] and the existence of anti-takeover measures.[84] The research almost unanimously demonstrates that good corporate governance with respect to the aforementioned measures significantly decreases a firm's cost of debt (i.e. credit spreads).[85]

3.1.2 COST OF DEBT AND THE 'E' AND 'S' DIMENSIONS

Research investigating the effects of sound sustainability policies on a firm's cost of debt has shown that firms with superior environmental management systems have significantly lower credit spreads, implying that these companies exhibit a lower cost of debt (after controlling for firm and industry characteristics).[86] According to recent studies, the converse relationship also holds. Firms with significant environmental concerns have to pay significantly higher credit spreads on their loans.[87] For instance within the pulp and paper industry firms that release more toxic chemicals have significantly higher bond yields than firms that release fewer toxic chemicals.[88]

"IN THE PRESENCE OF SHAREHOLDER CONTROL, THE DIFFERENCE IN BOND YIELDS DUE TO DIFFERENCES IN TAKEOVER VULNERABILITY CAN BE AS HIGH AS 66 BASIS POINTS."

Cremers et al., 2007

80 In a wider context of societal value creation, Godfrey, Merrill, and Hansen (2009) find that CSR actually offers corporations an 'insurance' benefit.

81 For evidence of institutional ownership as a governance device and its negative effect on bond yields (or its positive effect on bond ratings), see, for example, Bhojraj and Sengupta (2003), Cremers, Nair, and Wei (2007). Arguments against this relationship have been made by Ashbaugh-Skaife, Collins, and LaFond (2006).

82 Bhojraj and Sengupta (2003)

83 Schauten and van Dijk (2011) investigate the effect of corporate governance on credit spreads. They analyse 542 bond issues at large European firms and study the effect of four different corporate governance measures: shareholder rights, anti-takeover devices in place, board structure, and disclosure quality.

84 For evidence of the negative relationship between anti-takeover measures and corporate bond yields, see Klock, Mansi and Maxwell (2005). Similar evidence is provided by Ashbaugh-Skaife, Collins, and LaFond (2006), who document a positive relationship between the number of anti-takeover measures and bond ratings. The importance of anti-takeover measures for bondholders is also stressed by Cremers, Nair, and Wei (2007). Chava, Livdan, and Purnaanandam (2009)

85 Contrary evidence is provided by Menz (2010), and Sharfman and Fernando (2008). Mixed findings are provided by Bradley, Chen, Dallas, and Snyderwine (2008). They provide evidence that their board index alone significantly lowers bond spreads and improves credit ratings. They follow the argument that more stable boards bring more security to bondholders, thereby lowering spreads.

86 Bauer and Hann (2010).

87 Chava (2011), and Goss and Roberts (2011). Goss and Roberts (2011) find that firms facing CSR concerns pay between 7 and 18 basis points more than firms without CSR concerns.

88 Schneider (2011).

Studies also show that credit ratings are positively affected by superior sustainability performance. Better sustainability policies lead to better credit ratings.[89] In particular, it has been demonstrated that employee well-being leads to better credit ratings[90] and in turn lower credit spreads.[91]

"FIRMS WITH SOCIAL RESPONSIBILITY CONCERNS PAY BETWEEN 7 AND 18 BASIS POINTS MORE THAN FIRMS THAT ARE MORE RESPONSIBLE."

Goss and Roberts, 2011

3.2 SUSTAINABILITY AND THE COST OF EQUITY

3.2.1 COST OF EQUITY AND THE 'G' DIMENSION

Studies show that good corporate governance influences the cost of equity by reducing the firm's cost of equity.[92] This is not surprising, as good corporate governance translates into lower risk for corporations, reduces information asymmetries through better disclosure,[93] and limits the likelihood of managerial entrenchment.[94] Conversely, research also shows that firms with higher managerial entrenchment due to more anti-takeover devices in place, exhibit significantly higher cost of equity.[95] International evidence on Brazil and emerging market countries also supports the view that superior corporate governance reduces a firm's cost of equity significantly.[96]

'COMPANIES WITH BETTER GOVERNANCE SCORES EXHIBIT A 136 BASIS POINTS LOWER COST OF EQUITY'.

Ashbaugh-Skaife, et al., 2004

89 Attig, El Ghoul, Guedhami, Suh (2013) study firms from 1991-2010 and use MSCI ESG STATS as their source for CSR information. Additional evidence is provided by Jiraporn, Jiraporn, Boesprasert, and Chang (2014, forthcoming): after correcting for endogeneity, the authors conclude that firms with a better CSR quality tend to have better credit ratings, pointing towards a risk-mitigating effect of CSR.

90 See Verwijmeren and Derwall (2010: 962): 'Firms with better employee relations have better credit ratings, and thus a lower probability of bankruptcy'.

91 See, for example, Bauer, Derwall, and Hann (2009).

92 See, for example, Ashbaugh-Skaife, Collins, and LaFond (2004) who show that well governed firms exhibit a cost of equity financing 136 basis points lower than their poorly governed counterparts. Even after adjusting for risk, the difference between well-governed and poorly-governed firms is still 88 basis points. Furthermore, Derwall and Verwijmeren (2007) also present evidence that better corporate governance on average led to lower cost of equity capital in the period 2003-2005.

93 See, for example, Barth, Konchitchki, and Landsman (2013). They show that greater corporate transparency with respect to earnings significantly lower the firm's cost of capital. Their study sample is comprised of US firms over 1974-2000.

94 Derwall and Verwijmeren (2007).

95 See, for example, Chen, Chen, and Wei (2011). They show that the governance index of Gompers et al. (2003) is significantly and positively related with a firm's cost of equity. This implies that relatively better governed firms can benefit from lower cost of equity, relative to poorly-governed firms.

96 See, for example, Lima and Sanvicente (2013) for evidence from Brazil. Chen, Chen, and Wei (2009) provide evidence on the relation between corporate governance and cost of equity for a sample of firms from emerging markets. They also show that good corporate governance leads to lower cost of equity capital.

3.2.2 COST OF EQUITY AND THE 'E' AND 'S' DIMENSIONS

Several studies also demonstrate that a firm's environmental management[97] and environmental risk management[98] have an impact on the cost of equity capital. Firms with a better score for the 'E' dimension of ESG have a significantly lower cost of equity.[99] Good environmental sustainability also reduces a firm's beta,[100] and voluntary disclosure of environmental practices further helps to reduce its cost of equity.[101]

Regarding the 'S' dimension of ESG, there is evidence that good employee relations and product safety lead to a lower cost of equity.[102] Beyond this, research on sustainability disclosure reveals that better reporting leads to a lower cost of equity by reducing firm-specific uncertainties, especially in environmentally sensitive firms.[103] Another study documents that a firm investing continuously in good sustainability practices has the effect of lowering a firm's cost of capital by 5.61 basis points compared to firms that do not.[104]

"SUPERIOR CSR PERFORMERS ENJOY A c.1.8% REDUCTION IN THE COST OF EQUITY"

Dhaliwal et al., 2011

97 See, for example, El Ghoul, Guedhami, Kwok, and Mishra (2011).

98 Evidence of the effect of environmental risk management practices on a firm's cost of equity financing is provided by Sharfman and Fernando (2008), who document that a firm's overall weighted average cost of capital is significantly lower when it has proper environmental risk management measures in place.

99 See, for example, El Ghoul, Guedhami, Kim, and Park (2014). The authors show for a sample of 7,122 firm-years between 2002 and 2011 that firms with better corporate environmental responsibility have significantly lower cost of equity.

100 Theoretical and empirical evidence of CSR and a corporation's beta is provided by Albuquerque, Durnev, and Koskinen (2013), who document that their self-constructed composite CSR index is significantly and negatively related to a firm's beta, which implies that it also reduces its cost of equity financing, all other things being equal.

101 Dhaliwal, Li, Tsang, and Yang (2011) report a reduction of 1.8% in the cost of equity capital for first-time CSR disclosing firms with excellent CSR quality. Dhaliwal, Radhakrishnan, Tsang, and Yang (2012: 752) show that more CSR disclosure leads to lower analyst forecast error which indicates that CSR disclosure 'complements financial disclosure by mitigating the negative effect of financial opacity on forecast accuracy'.

102 See, for example, El Ghoul, Guedhami, Kwok, and Mishra (2011) who show that alongside environmental risk management, employee relations and product safety also influence the cost of equity financing.

103 Reverte (2012) finds a difference in the cost of equity of up to 88 basis points between those firms with good disclosure practices and those with bad disclosure practices.

104 Cajias, Fuerst, and Bienert (2012) evaluate the effect of aggregate CSR scores on the cost of equity capital and find that between 2003 and 2010 the effect of both CSR strength and weakness was negative overall, implying lower costs of equity capital financing.

SUMMARY

This section has investigated the relationship between corporate sustainability and corporate cost of capital. The results can be summarized as follows:

- Firms with good sustainability standards enjoy significantly lower cost of capital.
- Superior sustainability standards improve corporations' access to capital.[105]
- Differentiating between a firm's cost of equity and cost of debt, we conclude the following:
- Cost of debt:
  - *Good corporate governance structures such as small and efficient boards and good disclosure policies lead to lower borrowing costs.*
  - *Good environmental management practices, such as the installation of pollution abatement measures and the avoidance of toxic releases, lowers the cost of debt.*
  - *Employee well-being reduces a firm's borrowing costs.*
- Cost of equity:
  - *The existence of anti-takeover measures increases a firm's cost of equity and vice versa.*
  - *Environmental risk management practices and disclosure on environmental policies lower a firm's cost of equity.*
  - *Good employee relations and product safety reduces the cost of equity of firms.*

Table 4 summarizes all 29 empirical studies on sustainability and its effects on cost of capital that have been reviewed for this report. In total, 26 of the 29 studies (90%) find a relationship which points to a reducing effect of superior sustainability practices on the cost of capital.

105 See, for example, Cheng, Ioannou, and Serafeim (2014).

TABLE 4: EMPIRICAL STUDIES INVESTIGATING THE RELATIONSHIP BETWEEN SUSTAINABILITY AND CORPORATE COST OF CAPITAL

STUDY AUTHORS	TIME PERIOD	ESG ISSUE	ESG FACTOR	IMPACT (*)
Albuquerque, Durnev, and Koskinen (2013)	2003-2012	Composite CSR index	ESG	Lower
Ashbaugh-Skaife, Collins, and LaFond (2004)	1996-2002	Several individual corporate governance attributes and a composite governance index	G	Lower
Ashbaugh-Skaife, Collins, and LaFond (2006)	2003	Governance index and individual governance attributes	G	Lower
Attig, El Ghoul, Guedhami, and Suh (2013)	1991-2010	Composite CSR index (excl. governance)	ES	Lower
Barth, Konchitchki, and Landsman (2013)	1974-2000	Earnings transparency	G	Lower
Bauer, Derwall, and Hann (2009)	1995-2006	Employee relations	S	Lower
Bauer and Hann (2010)	1995-2006	Environmental performance	E	Lower
Bhojraj and Sengupta (2003)	1991-1996	Governance attributes (institutional ownership, outside directors, block holders).	G	Lower
Bradley, Chen, Dallas, and Snyderwine (2008)	2001-2007	Several governance indices	G	Lower (1)
Cajias, Fuerst, and Bienert (2012)	2003-2010	CSE strengths and concerns	ESG	Mixed
Chava (2011)	2000-2007	Environmental performance (net concerns)	E	Lower (2)
Chava, Livdan, and Purnaanandam (2009)	1990-2004	Reversed governance index	G	Lower (3)
Chen, Chen, and Wei (2011)	1990-2004	Governance index	G	Lower
Chen, Chen, and Wei (2009)	2001-2002	Composite governance index	G	Lower
Cremers, Nair, and Wei (2007)	1990-1997	Anti-takeover index and ownership structure	G	Lower
Derwall and Verwijmeren (2007)	2003-2005	Corporate governance quality	G	Lower
Dhaliwal, Li, Tsang, and Yang (2011)	1993-2007	CSR disclosing quality	ESG	Lower (4)
El Ghoul, Guedhami, Kim, and Park (2014)	2002-2011	Corporate environmental responsibility	E	Lower
El Ghoul, Guedhami, Kwok, and Mishra (2011)	1992-2007	Composite CSR index (excl. governance)	ES	Lower (5)
Goss and Roberts (2011)	1991-2006	CSR concerns and strengths	ESG	Lower (6)
Jiraporn, Jiraporn, Boesprasert, and Chang (2014)	1995-2007	Composite CSR score	ESG	Lower
Klock, Mansi, and Maxwell (2005)	1990-2000	Governance index	G	Lower
Lima and Sanvicente (2013)	1998-2008	Composite governance index	G	Lower
Menz (2010)	2004-2007	Binary indicator variables for social responsibility	ESG	None (7)
Reverte (2012)	2003-2008	CSR reporting quality	ESG	Lower (8)
Schauten and van Dijk (2011)	2001-2009	Disclosure quality	G	Lower (9)
Schneider (2011)	1994-2004	Environmental performance: pounds of toxic emissions	E	Lower (10)
Sharfman and Fernando (2008)	2002	Environmental risk management	E	Mixed (11)
Verwijmeren and Derwall (2010)	2001-2005	Employee well-being	S	Lower

(*) In the last column of the table, we state the effect of better ESG on the cost of capital of firms. 'Lower' indicates that better ESG lowers cost of capital. 'Mixed' indicates that better ESG has a mixed effect on the cost of capital. 'None' indicates that better ESG has no effect on the cost of capital.

NOTES TO TABLE 4:

(1) More-stable boards indicate lower spreads. Mixed findings regarding several other governance attributes. We count it as 'lowering cost of capital' because more stable boards decrease cost of debt financing.

(2) We count this as lowering costs of capital because bad environmental behaviour is penalized by lenders (i.e., they charge more). However, through exhibiting a better environmental quality, firms can get relatively better lending conditions.

(3) The effect is positive when firms are exposed to takeovers. Conversely, firms which are protected from takeovers pay lower spreads (as in Klock, Mansi, and Maxwell (2005), who use the conventional G-index). Hence, Chava et al. (2009) support the idea that low takeover vulnerability decreases the cost of debt financing. We therefore count this study as documenting a reducing effect of proper ESG quality on the cost of capital.

(4) Especially for firms with sound sustainability policies and practices.

(5) Quality on employee relations, environment, and product strategies were particularly highlighted.

(6) Sustainability concerns increase loan spreads. Better environmental performance is therefore valued by lenders. They enjoy relatively better lending conditions. Therefore, counted as better ESG quality 'lowers' cost of capital.

(7) Only one model shows significant results.

(8) Especially for industries in environmentally sensitive sectors.

(9) The negative correlation between disclosure quality and credit spreads persists only if shareholder rights are low.

(10) Hence, good environmental performance reduces yield spread.

(11) The authors find that good environmental risk management increases the cost of debt and decreases the cost of equity. Hence, we count this study as delivering 'mixed' results.

4. SUSTAINABILITY AND OPERATIONAL PERFORMANCE

The previous section investigated the effects of sustainability on the cost of capital for corporations. Overall, the conclusion was that sustainability reduces a firm's cost of capital. The report now turns to the question whether sustainability improves the operational performance of corporations.

There is debate around the link between sustainability and a company's operating performance. Many commentators find a positive relationship between aggregated sustainability scores and financial performance.[106] Some suggest that there is no correlation,[107] and few argue that there is a negative correlation, between sustainability and operational performance.[108] Yet others propose that companies experience a benefit from merely symbolic sustainability actions through increased firm value.[109]

This section starts with an analysis of available meta-studies and then investigates the research on the effects of environmental, social, and governance (ESG) issues on operational performance separately. A table summarizing the reviewed empirical studies can be found at the end of this section.

4.1 META-STUDIES ON SUSTAINABILITY

There are several meta-studies and review papers which attempt to provide a composite picture of the relationship between sustainability and corporate financial performance. The general conclusion is that there is a positive correlation between sustainability and operational performance.

106 See, for example, Servaes and Tamayo (2013), Jo and Harjoto (2011) and Cochran and Wood (1984). Servaes and Tamayo (2013) conclude that CSR has a positive effect on financial performance, especially when the advertising intensity of a corporation is high. Firms benefit most from CSR if they also proactively advertise. This calls for a better CSR disclosure policy through which companies communicate their CSR efforts to the market and gain financially by, for example, attracting more customers. Jo and Harjoto (2011) show that CSR leads to higher Tobin's Q, but this relationship is significantly influenced by corporate governance quality. Cochran and Wood (1984) on the other hand conclude that superior CSR policy and practice lead to better operational performance of firms. Also, Pava and Krausz (1996) conclude that there is at least a slightly positive relation between CSR and financial performance using both market-based and accounting-based performance measures. Further evidence is provided by Koh, Qian, and Wang (2013). Wu and Shen (2013) find that CSR is positively related to financial performance; measured by accounting-based measures for 162 banks from 22 different countries. Albuquerque, Durnev, and Koskinen (2013) find a significant and positive relationship between their CSR score and Tobin's Q. Cai, Jo, and Pan (2012) show that the value of firms in controversial businesses is significantly and positively affected by CSR. In their classic study, Waddock and Graves (1997) show that corporate social performance is generally positively related to operational performance, with varying degrees of significance.

107 See, for example, McWilliams and Siegel (2000), Garcia-Castro, Arino, and Canela (2010), and Cornett, Erhemjamts, and Tehranian (2013). Garcia-Castro et al. (2010) claim that the existing literature on CSR and performance suffers from the fact that endogeneity is not properly dealt with. By adopting an instrumental variables approach, they are able to show that the relationship between an aggregate CSR index and financial performance becomes insignificant. They use ROE, ROA, Tobin's Q, and MVA as financial-performance measures.

108 See, for example, Baron, Harjoto, and Jo (2011).

109 Hawn and Ioannou (2013). Their results indicate that symbolic CSR changes significantly increase Tobin's Q, while substantive CSR action does not have any significant effect on firm performance. The authors suggest that 'firms with an established base of CSR resources might undertake symbolic actions largely because it is relatively less costly for them to do so, and also because such firms enjoy sufficient credibility with social actors to get away with it', p. 23.

In Table 5, we provide an overview of the most important meta-studies on sustainability and its relationship to corporate performance, and of studies which include a detailed overview of the literature on the topic.

TABLE 5: OVERVIEW OF META-STUDIES AND REVIEW PAPERS IN THE FIELD OF SUSTAINABILITY AND ESG

AUTHORS	YEAR	JOURNAL	TITLE
Fulton, Kahn, and Sharples	2012	Industry report; published by Deutsche Bank Group	Sustainable Investing: Establishing Long-Term Value and Performance
Hoepner and McMillan	2009	Working Paper	Research on 'Responsible Investment': An Influential Literature Analysis Comprising a Rating, Characterisation, Categorisation and Investigation
Margolis and Walsh	2003	Administrative Science Quarterly	Misery Loves Companies: Rethinking Social Initiatives by Business
Margolis, Elfenbein, and Walsh	2007	Working paper	Does it Pay to be Good? A Meta-Analysis and Redirection of Research on the Relationship Between Corporate Social and Financial Performance
McWilliams, Siegel, and Wright	2006	Journal of Management Studies	Corporate Social Responsibility: Strategic Implications
Orlitzky, Schmidt, and Rynes	2003	Organisation Studies	Corporate Social and Financial Performance: A Meta-analysis
Pava and Krausz	1996	Journal of Business Ethics	The Association Between Corporate Social-Responsibility and Financial Performance: The Paradox of Social Cost
Salzmann, Ionescu-Somers, and Steger	2005	European Management Journal	The Business Case for Corporate Sustainability: Literature Review and Research Options
van Beurden and Gössling	2008	Journal of Business Ethics	The Worth of Value - A Literature Review on the Relation Between Corporate Social and Financial Performance

4.2 OPERATIONAL PERFORMANCE AND THE 'G' DIMENSION

The literature on corporate governance and its relationship to firm performance is broad, often focusing more on stock market outcomes than firm profitability from an accounting perspective.[110] Nevertheless, there is research showing that poorly governed firms do have lower operating performance levels.[111] Similarly, there are also papers showing that good corporate governance leads to better firm valuations.[112] A similar relationship has been demonstrated for a sample of Swiss firms: good corporate governance is correlated with better firm valuations.[113] On a related note, some studies suggests that a smaller and transparent board structure increases firm value and that

110 We focus only on accounting-based studies in this section; the effects of corporate governance on stock price performance measures are discussed in the next section.

111 Core, Guay, and Rusticus (2006) show that firms with more anti-takeover devices in place (i.e., fewer shareholder rights as measured by the G-index of Gompers, Ishii, and Metrick (2003)) display lower returns on assets. Likewise, Cremers and Ferrell (2013) show that poorly-governed firms exhibit significantly lower industry-adjusted Tobin's Qs over the period 1978-2006. Giroud and Mueller (2011) also support these results by finding a significant negative relationship between the number of anti-takeover devices in place and firm valuation.

112 See, for example, Brown and Caylor (2006). They study the governance quality of 1,868 firms and relate it to their valuation statistics. Brown and Caylor show that their measure for corporate governance quality is positively and significantly related to firm value.

113 See, for example, Beiner, Drobetz, Schmid, and Zimmermann (2006).

firms with staggered or classified boards[114] suffer in terms of lower firm valuations.[115] There is also research showing that the governance environment of corporations (i.e. the governance legislation) significantly affects operational performance and firm valuation.[116]

Research has also shown that firm performance is directly affected by executive compensation practices.[117] If executive compensation schemes are properly designed (to motivate managers sufficiently not to incite excessive risk taking) the impact on firm performance is generally positive. Poorly-designed executive compensation schemes can tend to have the opposite effect, with higher executive pay resulting in lower firm performance.[118]

> "COMPANIES WITH LARGE BOARDS APPEAR TO USE ASSETS LESS EFFICIENTLY AND EARN LOWER PROFITS."
>
> *Yermack, 1996*

More indications to the positive effects of corporate governance on financial performance in a range of countries also exist, supporting the idea of a significant relationship between corporate governance quality and firm performance.[119]

4.3 OPERATIONAL PERFORMANCE AND THE 'E' DIMENSION

Empirical research on the relationship between environmental and financial performance points in a clear direction. Studies demonstrate that good corporate environmental practices ultimately translate into a competitive advantage and thus better corporate performance.[120]

Proper corporate environmental policies result in better operational performance. In particular, higher corporate environmental ratings,[121] the reduction of pollution levels,[122] and the implementation of waste prevention measures,[123] all have a positive effect on corporate performance. Likewise, the adoption of proper environmental management systems increases firm performance.[124] Moreover, the implementation of global standards with respect to corporate environmental behaviour increases Tobin's Q for multinational enterprises.[125] Furthermore, it

114 The terms 'classified', or 'staggered', boards refer to a particular board structure in which not all board members are up for re-election in the same year. Under this board structure, only a fraction of the board members are up for election at a particular annual general meeting. The remaining board members are up for election in the following year. This means that it becomes more difficult for shareholders to replace board members because it will take several years until a complete board will be changed. For more details see Bebchuk and Cohen (2005) and Bebchuk, Cohen, and Wang (2011).

115 Yermack (1996) shows that larger boards significantly reduce firm value. Evidence of the effect of staggered boards on firm value is provided by Bebchuk and Cohen (2005) as well as by Bebchuk, Cohen, and Wang (2011). The latter study investigates the causal effects of staggered boards by the means of the investigation of two court rulings related to staggered boards. Overall, they study 2,633 firms and conclude that staggered boards significantly reduce firm value.

116 Giroud and Mueller (2010) show that the introduction of business combination laws in the United States negatively affect the operating performance of firms in less competitive industries. This finding implies that firms operating in very concentrated industries suffer from these business combination laws in terms of lower return on assets (ROA).

117 For example, Mehran (1995).

118 Core, Holthausen, and Larcker (1999) document that poorly-governed firms pay their executives more than their well-governed counterparts, resulting in poorer firm performance.

119 Ammann, Oesch, and Schmid (2011) examine 6,663 firm-year observations from 22 developed capital markets over the period 2003-2007 and find consistently across all their models a significant relationship between their measures of corporate governance quality and Tobin's Q.

120 Porter and van der Linde (1995a, 1995b).

121 Russo and Fouts (1997).

122 For evidence of the effect of anti-pollution measures, see Fogler and Nutt (1975), Spicer (1978), Hart and Ahuja (1996), King and Lennox (2001), and Clarkson, Li, and Richardson (2004). Clarkson et al. (2004) show that investments in pollution abatement technologies pay off, especially for firms that pollute less.

123 King and Lennox (2002) document that proper waste prevention leads to better financial performance as measured by Tobin's Q and ROA.

124 Darnall, Henriques, and Sadorsky (2008).

125 Dowell, Hart, and Yeung (2000).

has recently been demonstrated that more eco-efficient firms have significantly better operational performance as measured by return on assets (ROA).[126] It is further argued that corporate environmental performance is the driving force behind the positive relationship between stakeholder welfare and corporate financial performance (measured by Tobin's Q).[127]

With regard to poor environmental policies, both the release of toxic chemicals and the number of environmental lawsuits have been found to have a significant and negative correlation to performance.[128] Additionally, carbon emissions have been found to affect firm value in a significant and negative manner.[129]

Hence, evidence related to the 'E' dimension shows that a more environmentally friendly corporate policy translates into better operational performance.

4.4 OPERATIONAL PERFORMANCE AND THE 'S' DIMENSION

Studies validate a correlation between the 'S' (social) dimension of sustainability and operational performance. Good corporate relations with three major stakeholder groups – employees, customers and the community – significantly improve operational performance.[130] It is also clear that proper stakeholder management practices translate into higher firm value.[131] More broadly, a diverse workforce has a positive effect on firm performance,[132] and the evidence points to the importance of employee relations for operational performance. The conclusion is evident: good workforce practices pay off financially in terms of better operating performance.[133]

For other, more specific social dimensions, there is also evidence of significant and positive effects on corporate performance. For example, banks that have better scores for 'Community Reinvestment Act Ratings' exhibit better financial performance.[134]

Given the evidence, it is clear that the social dimension of sustainability, if well managed, generally has a positive influence on corporate financial performance. What is missing in this strand of research is direct evidence of other types of corporate social behaviour, for example, corporations' worker-safety standards in emerging markets, respect for human rights, or socially responsible advertising campaigns.

'A 10% REDUCTION IN EMISSIONS OF TOXIC CHEMICALS RESULTS IN A $34 MILLION INCREASE IN MARKET VALUE'

Konar and Cohen, 2001

126 Guenster, Derwall, Bauer, and Koedijk (2011).
127 Jiao (2010).
128 Konar and Cohen (2001).
129 See, for example, Matsumura, Prakash, and Vera-Munoz (2011).
130 Preston and O'Bannon (1997).
131 See, for example, Benson and Davidson (2010), Hillman and Keim (2001), and Borgers, Derwall, Koedijk, and ter Horst (2013). Borgers et al. (2013) find a significant positive relation between a stakeholder index and subsequent operational performance of corporations measured by operating income scaled by assets and net income scaled by total assets.
132 Richard, Murthi, and Ismail (2007) investigate the effect of racial diversity on productivity and firm performance and find a positive relationship between the level of racial diversity and performance.
133 See, for example, Huselid (1995), Smithey Fulmer, Gerhart, and Scott (2003), and Faleye and Trahan (2010). Huselid (1995) provides evidence that good workforce practices translate into better operating performance. Similar findings are shown by Smithley et al. (2003), and Faleye and Trahan (2010).
134 Simpson and Kohers (2002).

SUMMARY

In this section, we have analysed the academic literature on the relationship between sustainability and operational performance and conclude the following:

- Meta-studies generally show a positive correlation between sustainability and operational performance.
- Research on the impact of ESG issues on operational performance shows a positive relationship:
  - *With regard to governance, issues such as board structure, executive compensation, anti-takeover mechanisms, and incentives are viewed as most important.*
  - *Environmental topics such as corporate environmental management practices, pollution abatement and resource efficiency are mentioned as the most relevant to operational performance.*
  - *Social factors such as employee relationships and good workforce practices have a large impact on operational performance.*

Table 6 summarizes all reviewed empirical studies on the topic of sustainability in relation to operational performance.

In total we reviewed 49 studies, of which 43 (88%) show a positive correlation between sustainability and operational performance.

TABLE 6: EMPIRICAL STUDIES ON THE RELATIONSHIP BETWEEN ESG AND CORPORATE OPERATIONAL PERFORMANCE.

STUDY AUTHORS	TIME PERIOD	ESG ISSUE	ESG FACTOR	IMPACT (*)
Albuquerque, Durnev, and Koskinen (2013)	2003-2012	Composite CSR index	ESG	Positive
Ammann, Oesch, and Schmidt (2011)	2003-2007	Compiled governance indices	G	Positive (1)
Baron, Harjoto, and Jo (2011)	1996-2004	Aggregate CSR strengths index and CSR concerns index	ESG	Mixed findings (2)
Bebchuk and Cohen (2005)	1995-2002	Classified boards (Board structure)	G	Positive (3)
Bebchuk, Cohen, and Wang (2011)	2010	Classified boards	G	Positive
Beiner, Drobetz, Schmid, and Zimmerman (2006)	2003	Composite and individual governance indicators	G	Positive
Benson and Davidson (2010)	1991-2002	Stakeholder management practices and social issue participation	S	Positive
Borgers, Derwall, Koedijk, and ter Horst (2013)	1992-2009	Stakeholder relations index	S	Positive
Brown and Caylor (2006)	2003	Composite governance score	G	Positive
Busch and Hoffmann (2011)	2007	Carbon intensity	E	Mixed
Cai, Jo, and Pan (2012)	1995-2009	Aggregate CSR index	ESG	Positive (4)
Clarkson, Li, and Richardson (2004)	1989-2000	Environmental capital expenditures	E	Positive (5)
Cochran and Wood (1984)	1970-1979	CSR reputation index	ESG	Positive
Core, Guay, and Rusticus (2006)	1990-1999	Governance index/shareholder rights	G	Positive (6)
Core, Holthausen, and Larcker (1999)	1982-1984	Excess compensation	G	Positive (7)
Cornett, Erhemjamts, and Tehranian (2013)	2003-2011	Overall ESG index	ESG	No effect (8)
Cremers and Ferrell (2013)	1978-2006	Governance index/shareholder rights	G	Positive (9)
Darnall, Henriques, and Sadorsky (2008)	2003	Adoption of environmental management practices	E	Positive
Dowell, Hart, and Yeung (2000)	1994-1997	Adoption of global environmental standards	E	Positive
Faleye and Trahan (2011)	1998-2005	Good workforce practices	S	Positive
Garcia-Castro, Arino, and Canela (2010)	1991-2005	Aggregate stakeholder relations measure	ESG	No effect
Giroud and Mueller (2010)	1976-1995	Industry concentration	G	Positive (10)
Giroud and Mueller (2011)	1990-2006	Governance index	G	Positive (11)
Guenster, Derwall, Bauer, and Koedijk (2011)	1997-2004	Eco-efficiency levels	E	Positive
Hart and Ahuja (1996)	1989-1992	Reduction in pollution	E	Positive (12)
Hawn and Ioannou (2013)	2002-2008	Symbolic CSR actions	ESG	Positive
Hillman and Keim (2001)	1994-1996	Stakeholder relations and social issues participation	S	Positive (13)
Huselid (1995)	-	Good workforce practices	S	Positive
Jayachandran, Kalaignanam, and Eilert (2013)	-	Corporate environmental performance, product social performance	ES	Mixed (14)

(continued)

TABLE 6: CONTINUED

STUDY AUTHORS	TIME PERIOD	ESG ISSUE	ESG FACTOR	IMPACT (*)
Jiao (2010)	1992-2003	Stakeholder welfare score	S	Positive
Jo and Harjoto (2011)	1993-2004	Aggregate CSR index and governance index	ESG	Positive (15)
King and Lennox (2001)	1987-1996	Total emissions	E	Positive (16)
King and Lennox (2002)	1991-1996	Installation of waste prevention measures	E	Positive
Koh, Qian, and Wang (2013)	1991-2007	Aggregate CSR score	ESG	Positive
Konar and Cohen (2001)	1989	Release of toxic chemicals	E	Positive (17)
Matsumura, Prakash, and Vera-Munoz (2011)	2006-2008	Total level of carbon emissions	E	Positive (18)
McWilliams and Siegel (2000)	1991-1996	Socially responsible indicator variable	ESG	No Effect
Mehran (1995)	1979-1980	Total executive compensation and share of equity based salary	G	Positive
Pava and Krausz (1996)	1985-1991	Aggregate CSR score	ESG	Positive
Preston and O'Bannon (1997)	1982-1992	Employee, customer, and community relations	S	Positive (19)
Richard, Murthi, and Ismail (2007)	1997-2002	Diversity	S	Positive
Russo and Fouts (1997)	1991-1992	Corporate environmental performance	E	Positive (20)
Servaes and Tamayo (2013)	1991-2005	Aggregate CSR index	ESG	Positive (21)
Simpson and Kohers (2002)	1993-1994	Community Relations	S	Positive
Smithey Fulmer, Gerhart, and Scott (2003)	1998	Employee wellbeing	S	Positive (22)
Spicer (1978)	1970-1972	Pollution control mechanisms	E	Positive
Waddock and Graves (1997)	1989-1991	Weighted average CSR index	ESG	Positive
Wu and Shen (2013)	2003-2009	Aggregate CSR index	ESG	Positive
Yermack (1996)	1984-1991	Reductions in board size	G	Positive

(*) In the last column of the table, we state the effect of better ESG on operational performance. 'Positive' indicates that better ESG has a positive effect on operational performance. 'Mixed' indicates that better ESG has a mixed effect on operational performance. 'Negative' indicates that better ESG has negative effect on operational performance.

NOTES TO TABLE 6:

(1) Evidence from numerous countries.

(2) CSR strengths are not significantly correlated to Tobin's Q; CSR challenges show a significantly negative correlation to Tobin's Q.

(3) Counts as positive, as better-governed firms without classified boards have a relatively better performance.

(4) Positive but insignificant for sin industries only.

(5) Just for firms that are not major polluters.

(6) This is counted as positive, because weak shareholder rights (a high G-index) lead to poor operating performance. Hence, improvements in

shareholder rights can trigger better performance. This reasoning applies to all studies which investigate the effects of the governance index from Gompers, Ishii, and Metrick (2003) on performance.

(7) Counts as positive because less excessive pay (i.e. better governance) implies relatively better performance.

(8) Banking industry study.

(9) Counts as positive, same argument as for Core, Guay, and Rusticus (2006).

(10) Counts as positive, because study shows that well governed (in terms of industry competitiveness) firms perform relatively better.

(11) Counts as positive.

(12) Generally positive, even more positive effect for firms that pollute.

(13) Social issue participation shows a negative correlation, but because these are controversial business indicators, the effect is positive overall.

(14) Product social performance has positive effect on Tobin's Q, environmental performance has no effect, and environmental concerns have a negative effect.

(15) G-index (by Gompers et al., (2003)) is negatively related to Tobin's Q, implying that improvements in the G-index will lead to relatively better valuations.

(16) That is, less pollution is value enhancing. Therefore this study counts as positive.

(17) Firms that release fewer toxic chemicals benefit by having better performance. Therefore counted as a 'positive effect'.

(18) We count this study as 'positive' because a reduction in the level of carbon emissions would result in a relatively better performance.

(19) A correlation is found here, but no causal effect.

(20) This result holds especially for high growth industries.

(21) Only when advertising intensity is high.

(22) A correlation is found here, but no causal effect.

5. SUSTAINABILITY AND STOCK PRICES

The previous two sections investigated the link between sustainability and corporate performance where we found a significant positive correlation:

- 90% of the cost of capital studies show that sound ESG standards lower the cost of capital.
- 88% of the operational performance studies show that solid ESG practices result in better operational performance.

Based on these results, the following section analyses whether this information is beneficial for equity investors. In doing so, we use the same methodology as before: we examine the effects of environmental, social, and governance (ESG) parameters on stock prices separately and then consider the effects for the aggregate scores.

5.1 STOCK PRICES AND THE 'G' DIMENSION

The way in which the quality of corporate governance influences stock price performance has been the subject of in-depth analyses in financial economics and corporate finance literature.[135] The research has focused on particular features of governance structures in order to review effects on profitability and financial performance. The focus has been on both external governance mechanisms such as the market for corporate control,[136] the level of industry competition,[137] and internal mechanisms such as the board of directors[138] and executive compensation practices.[139] It has also been shown that revealed financial misrepresentation leads to significantly negative stock market rections.[140]

'A PORTFOLIO THAT GOES LONG IN WELL GOVERNED FIRMS AND SHORT IN POORLY GOVERNED FIRMS CREATES AN ALPHA OF10% TO 15% ANNUALLY OVER THE TIME PERIOD 1990 TO 2001.'

Cremers and Nair, 2005

135 The financial economics literature in general and the corporate finance literature in particular have clearly focused more on research which relates the corporate governance quality to corporate financial performance. This is because it is often claimed that the quality of corporate governance is easier to quantify than the quality of environmental or social performance, and that the financial consequences are easier to measure.

136 See Gompers, Ishii, and Metrick (2003) for the most prominent example of research on the relation between takeover exposure and stock-price performance. Their results have been confirmed by Core, Guay, and Rusticus (2006).

137 For example: Giroud and Mueller (2010) and (2011).

138 Evidence is, for example, provided by Yermack (1996).

139 For example, Core, Holthausen, and Larcker (1999).

140 Karpoff, Lee, and Martin (2008). The authors study 585 firms which have been involved in financial misrepresentation cases with the SEC over the time period from 1978 to 2002. 25.24%.

Probably the most prominent study on corporate governance and its relationship to stock market performance was published in the Quarterly Journal of Economics in 2003. Researchers from Harvard and Wharton showed, for the first time, that the stocks of well-governed firms significantly outperform those of poorly-governed firms. Their empirical analysis revealed that a long-short portfolio of both well- and poorly-governed firms (i.e., going long in firms with more-adequate shareholder rights and short in firms with less-adequate shareholder rights) leads to a risk-adjusted annual abnormal return (henceforth, alpha) of 8.5% over the period 1990 to 1999.[141]

Further research supports their finding that superior governance quality is valued positively by the financial market.[142] For example, a portfolio that goes long in well governed firms and short in poorly governed firms creates an alpha of 10% to 15% annually over the time period 1990 to 2001.[143]

However, there remains more work to be done in researching whether these findings are driven by governance aspects or by other firm or sector characteristics as there has been some suggestion that adjusting for industry clustering may remove alpha.[144]

In summary, the majority of current studies suggest that superior governance quality leads to better financial performance.

5.2 STOCK PRICES AND THE 'E' DIMENSION

Research has also documented a direct relationship between the environmental performance of firms and stock price performance. In particular, it has been demonstrated that positive environmental news triggers positive stock price movements.[145] Similarly, firms behaving environmentally irresponsibly demonstrate significant stock price decreases.[146] Specifically, following environmental disasters in the chemical industry, the stock price of the affected firms reacts significantly negatively.[147]

It has been further shown that firms with higher pollution figures have lower stock market valuations.[148] Other prominent research has revealed that firms which are more 'eco-efficient' significantly outperform firms that

141 Gompers, Ishii, and Metrick (2003) investigate the performance implications of the exposure of corporations towards the market for corporate control, constructing a governance index which consists of 24 unique anti-takeover devices. Higher index values imply many anti-takeover mechanisms in place (≥ 14), or a low level of shareholder rights ('dictatorship' or poorly governed firms). In contrast, well-governed firms display very low levels (≤ 5) of the governance index (the 'democracy' firms).

142 Bebchuk, Cohen, and Ferrell (2010) use an 'entrenchment index' based on six governance provisions with potential managerial entrenchment effects. The authors find that their entrenchment index is negatively related to firm value as measured by Tobin's Q., hence, their findings support the results obtained by Gompers, Ishii, and Metrick (2003) as well as those of Cremers and Ferrell (2013) in that they document the importance of corporate governance for firm value.

143 See Cremers and Nair (2005) who investigate the effects of governance quality on stock market performance. Their finding that well governed firms outperform is, however, conditional on internal governance quality, i.e., their result only holds if there is high institutional ownership next to high takeover vulnerability.

144 See, for example, Johnson, Moorman, and Sorescu (2009).

145 See Klassen and McLaughlin (1996). The authors investigate the stock price reaction to the announcement of positive environmental news and use the announcement of the winning of an environmental award (verified by a third party organization) as their measure for good environmental performance. Conversely, they also document negative stock price reactions for adverse corporate environmental events.

146 See, Flammer (2013a). The author investigates stock price reactions around news related to the environmental performance of corporations. Investigating environmentally related news over the time period 1980-2009, the author concludes that on the two days around the news event (i.e. one day before the announcement of the environmentally related news and the announcement day itself), stocks with "eco-friendly events" experience a stock price increase of on average 0.84% while firms with "eco-harmful events" exhibit a stock price drop of 0.65%.

147 See Capelle-Blancard and Laguna (2010). The authors investigate in total 64 explosions in chemical plants at 38 different corporations over the time period from 1990 to 2005. On the day of the explosion, the average stock price reaction is negative with 0.76%. Two-days after the event, shareholder lost on average 1.3%. The authors also find that share prices react more negatively if the disaster involved the release of toxic chemicals.

148 Cormier and Magnan (1997) find that firms that pollute more have lower stock market values. They argue that this is due to the 'implicit environmental liabilities' that these firms carry with them. Hamilton (1995) argues in a similar vein, showing that a company's share price shows a significantly negative reaction to the release of information on toxic releases.

are less 'eco-efficient',[149] and this result holds even after accounting for transaction costs, market risk, investment style, and industries. This key finding points to a positive relationship between corporate environmental performance and financial performance[150]. The converse relationship also holds: firms that violate environmental regulations experience a significant drop in share price.[151]

On the other side, research also indicates that the market does not value all corporate environmental news equally.[152] For example, a voluntary adoption of corporate environmental initiatives has been known to result in a negative stock price reaction upon the announcement of the initative.[153]

> AFTER REPORTING ENVIRONMENTALLY POSITIVE EVENTS STOCKS SHOW AN AVERAGE ALPHA OF 0.84%. CONVERSELY, AFTER NEGATIVE EVENTS, STOCKS UNDERPERFORM BY -0.65%.
>
> *Flammer, 2013a*

5.3 STOCK PRICES AND THE 'S' DIMENSION

Besides the environmental and governance dimensions of sustainability, researchers have also investigated the effect of particular social issues on corporate financial performance. Perhaps the most prominent study on the social dimension of ESG and its effect on corporate financial performance is by Professor Alex Edmans, who was then at the Wharton School at the University of Pennsylvania. He investigated the '100 Best Companies to Work For' in order to check for a relationship between employee wellbeing and stock returns. His findings indicate that a portfolio of the '100 Best Companies to Work For' earned an annual alpha of 3.5% in excess of the risk-free rate from 1984 to 2009 and 2.1% above industry benchmarks.[154] Similar outperformance has also been observed for a more extended period from 1984 to 2011.[155]

Empirical results also show international evidence on the positive relationship between employee satisfaction and stock returns.[156]

This is a highly significant finding because it indicates that alphas seem to survive over the longer term and that

149 See Derwall, Guenster, Bauer, and Koedijk (2005): The authors investigate the stock market performance of firms that are more 'eco-efficient' and firms that are less 'eco-efficient'. They also focus on the concept of 'eco-efficiency' as a measure of corporate environmental performance. They define it as the economic value that the company generates relative to the waste it produces in the process of generating this value (p. 52). In the period 1995-2003, they find that the most 'eco-efficient' firms deliver significantly higher returns than less 'eco-efficient' firms.

150 Galema, Plantinga, and Scholtens (2008) argue that the reason some studies find no significant alpha after risk adjusting using the Fama-French risk factors is that corporate environmental performance significantly lowers book-to-market ratios, implying that the return differences between high CSR and low CSR stocks are created through the book-to-market channel because 'SRI results in lower book-to-market ratios, and as a result, the alphas do not capture SRI effects', p. 2653.

151 Karpoff, Lott, and Wehrly (2005) provide evidence of this relationship.

152 See, for example, Brammer, Brooks, and Pavelin (2006).

153 See, Fisher-Vanden and Thorburn (2011): The authors study 117 firms over the time period 1993-2008 and examine shareholder wealth effects resulting from participation in the voluntary environmental programmes using an event study methodology. Overall and across several empirical specifications, they document a significant and negative stock market reaction upon the announcement of joining the voluntary environmental performance initiatives. Shareholder value is therefore destroyed by voluntarily joining these programmes, hence the authors conclude that 'corporate commitments to reduce GHG emissions appear to conflict with firm value maximization'.

154 Edmans (2011) argues that the stock market does not fully value intangibles in the form of employee relations.

155 In his follow-up paper, Edmans (2012) extends the sample period until 2011 and tests for any alphas over the new sample period from 1984-2011. Consistent with his earlier findings, the results indicate an alpha of 3.8% annually in excess of the risk-free rate. Likewise, the alphas adjusting for industries are higher than in the shorter sample period with 2.3% annually.

156 See Edmans, Li, and Zhang (2014). The authors investigate the relation of employee satisfaction and stock returns in 14 countries over several different time periods. They find that for 11 out of the 14 countries the alphas of a portfolio of the companies with the highest employee satisfaction scores are positive. Their evidence also points to the fact that the observed and often quoted positive relationship between good employee relations and stock returns may not hold for all countries and that also country differences with respect to labor flexibility must be taken into account.

the market has still not yet priced in all the information regarding employee satisfaction.

Similar results have been documented elsewhere.[157] Other studies on the social dimension of ESG show that firms which make very high or very low charitable donations report better financial performance than other firms, especially over the long-term,[158] although in this context, we agree with those who question whether charitable donations are a real measure for sustainability or if donations are just seen as a 'symbolic action'.[159]

5.4 STOCK PRICES AND AGGREGATE SUSTAINABILITY SCORES

A number of studies look at aggregated sustainability indices. For example, the addition to, or exclusion from, the Dow Jones Sustainability World Index has been found to have some effect on stock prices: index inclusions have a positive effect, while index exclusions have a negative effect on respective stock prices.[160] There is also wider evidence that exclusion from sustainability stock indices causes significant negative stock price reactions.[161] Other evidence shows that stocks of firms with a superior sustainability profile deliver higher returns than those of their conventional peers,[162] and that sustainability quality provides insurance-like effects when negative events occur, helping to support the stock price upon the announcement of the negative event.[163] It has also been demonstrated that firms experience significant positive stock price reactions when shareholder-sponsored CSR proposals are adopted by corporations.[164]

The effects of an aggregated sustainability measure have also been investigated in the context of corporate mergers and acquisitions.[165] For example, by following a trading strategy which goes long in acquirers with a better sustainability profile and going short in acquirers with a worse sustainability profile, investors are able to realize an annual risk-adjusted alpha of 4.8%, 3.6%, and 3.6% over one-, two-, and three-year holding periods respectively.[166] More generally, when companies with a good sustainability

'A PORTFOLIO COMPRISED OF THE '100 BEST COMPANIES TO WORK FOR IN AMERICA' YIELDED AN ALPHA OF 2.3% ABOVE INDUSTRY BENCHMARKS OVER THE PERIOD 1984-2011.'

Edmans, 2012

157 Three examples of additional evidence are Smithey Fulmer, Gerhart, and Scott (2003), Filbeck and Preece (2003), and Faleye and Trahan (2011). Smithey Fulmer et al. (2003) show that the '100 Best Companies to Work For' are able to outperform the market, but not match peer firms. Filbeck and Preece (2003) conclude that a persistent outperformance of these firms is not observed, but that 'support may exist for such superior results for longer holding periods', p. 790. Faleye and Trahan (2011) report positive stock price reactions upon the announcement of the Fortune list which includes the '100 Best Companies to Work For'.

158 See, for example, Brammer and Millington (2008). Godfrey (2005) shows that 'strategic corporate philanthropy' can indeed benefit shareholders.

159 For example, Hawn and Ioannou (2013) discuss symbolic CSR actions in the context of firm value.

160 See Cheung (2011). The author also shows that most of the sample firms are operating in the manufacturing industry, implying that even companies in industries that traditionally have a poor CSR profile frequently become members of a sustainability index.

161 See, for example, Doh, Howton, Howton, and Siegel (2010).

162 Statman and Glushkov (2009).

163 Godfrey, Merrill, and Hansen (2009).

164 Flammer (2013b). The author shows for a sample of 2,729 shareholder-sponsored CSR proposals that implementing them leads to an alpha of 1.77%.

165 See, for example, Deng, Kang, and Low (2013), and Aktas, de Bodt and Cousin (2011).

166 Deng, Kang, and Low (2013) study 1,556 completed US mergers between 1992 and 2007 to address the key question whether CSR creates value for acquiring firms' shareholders. They find that superior CSR quality on the part of the acquirer creates value for both the acquiring shareholders and the target shareholders. They also document that bondholders' CARs (cumulative abnormal returns) are generally negative upon the announcement of a merger, but are less negative for those mergers in which an acquirer with a good CSR profile is involved, which adds to the evidence provided by Cremers, Nair, and Wei (2007).

profile are acquired, the market reaction is unanimously positive.[167]

Another recent study which relates an aggregate sustainability score to stock market performance finds that a 'high-sustainability' portfolio outperforms a 'low-sustainability' portfolio by 4.8% on an annual basis (when using a value-weighted portfolio, the results indicate an annual outperformance of 2.3%).[168] Overall, these findings point to the possibility of earning an alpha by investing in firms with a superior sustainability profile.

Against this, there is some evidence indicating a negative relationship between aggregate sustainability scores and stock market performance exists, however such evidence is scarce.[169] Despite several studies showing no relationship, or a negative relationship, between sustainability scores (both aggregated and disaggregated) and stock price performance, the majority of studies find a positive relationship where superior ESG quality translates into superior stock price performance relative to firms with lower ESG quality.

STOCKS OF SUSTAINABLE COMPANIES TEND TO OUTPERFORM THEIR LESS SUSTAINABLE COUNTERPARTS BY 4.8% ANNUALLY

Eccles, Ioannou, and Serafeim, 2013

167 Aktas, de Bodt and Cousin (2011) investigate 106 international merger deals from 1997-2007 using Innovest IVA ratings.

168 Eccles, Ioannou, and Serafeim (2013) classify the sustainability quality of firms based on a sustainability index which evaluates whether corporations adopt several different kinds of CSR policies (e.g., human rights, environmental issues, waste reduction, product safety, etc.). The authors primarily investigate the stock market performance of both groups of firms and therefore circumvent any reverse causality issues. Their empirical analysis reveals that a portfolio consisting of low-sustainability firms shows significantly positive returns. Further, the high-sustainability portfolio displays positive and significant returns over the sample period. Importantly, the performance differential is significant in economic and statistical terms. The authors also find that the high-sustainability portfolio outperforms the low-sustainability portfolio in 11 of the 18 years of the sample period.

169 See for example, Brammer, Brooks, and Pavelin (2006). They focus on the UK market and call for a disaggregation of CSR measures in order to disentangle the individual effects of each of the underlying CSR measures (also related to Table 1 of this report). Lee and Faff (2009) show that companies 'lagging' with respect to corporate sustainability underperform compared with their superior counterparts and the market.

SUMMARY

Based on our review in this section, the following can be concluded with respect to the relationship between sustainability and financial market performance:

- Superior sustainability quality (as measured by aggregate sustainability scores) is valued by the stock market: more sustainable firms generally outperform less sustainable firms.
- Stocks of well-governed firms perform better than stocks of poorly-governed firms.
- On the environmental dimension of sustainability, corporate eco-efficiency and environmentally responsible behavior are viewed as the most important factors leading to superior stock market performance.
- On the social dimension, the literature shows that good employee relations and employee satisfaction contribute to better stock market performance.

Table 7 summarizes all reviewed papers on sustainability and its relation to financial market performance. In total, we reviewed 39 studies, of which 31 (80%) document a positive correlation between good sustainability and superior financial market performance.

TABLE 7: EMPIRICAL STUDIES INVESTIGATING THE RELATIONSHIP OF VARIOUS ESG FACTORS AND CORPORATE FINANCIAL PERFORMANCE

STUDY AUTHORS	TIME PERIOD	ESG ISSUE	ESG FACTOR	IMPACT (*)
Aktas, de Bodt, and Cousin (2011)	1997-2007	Intangible Value Assessment Ratings	ESG	Positive (1)
Bebchuk, Cohen, and Ferrell (2009)	1990-2003	Entrenchment index	G	Positive (2)
Bebchuk, Cohen, and Wang (2013)	2000-2008	Governance quality/shareholder rights	G	No effect/no relation
Borgers, Derwall, Koedijk, and ter Horst (2013)	1992-2009	Stakeholder relations index	S	Mixed findings (3)
Brammer and Millington (2006)	1990-1999	Charitable giving	S	Mixed findings (non-linear) (4)
Brammer, Brooks, and Pavelin (2006)	2002-2005	Composite CSR index	ES	Mixed (5)
Capelle-Blancard and Laguna (2010)	1990-2005	Environmental disasters (explosions) at chemical plants	E	Positive (6)
Cheung (2011)	2002-2008	Sustainability index inclusion/exclusions	ESG	Positive
Core, Guay, and Rusticus (2006)	1990-1999	Governance index/shareholder rights	G	Positive
Core, Holthausen, and Larcker (1999)	1982-1984	Excessive compensation	G	Positive (7)
Cormier and Magnan (1997)	1986-1993	Amount of pollution	E	Positive (8)
Cremers and Nair (2005)	1990-2001	Reversed governance index and block holder ownership	G	Positive
Deng, Kang, and Low (2013)	1992-2007	Composite CSR index	ESG	Positive
Derwall, Guenster, Bauer, and Koedijk (2005)	1995-2003	Corporate eco-efficiency	E	Positive
Doh, Howton, Howton, and Siegel (2010)	2000-2005	Sustainability index inclusion/exclusion	ESG	Mixed (9)
Eccles, Ioannou, and Serafeim (2013)	1991-2010	Corporate sustainability index	ESG	Positive
Edmans (2011)	1984-2009	Employee satisfaction	S	Positive
Edmans (2012)	1984-2011	Employee satisfaction	S	Positive
Edmans, Li, and Zhang (2014)	1984-2013	Employee satisfaction	S	Generally positive
Faleye and Trahan (2011)	1998-2005	Employee satisfaction	S	Positive
Filbeck and Preece (2003)	1998	Employee satisfaction	S	Positive
Fisher-Vanden and Thorburn (2011)	1993-2008	Environmental performance initiative participation	E	Positive
Flammer (2013a)	1980-2005	Corporate environmental footprint	E	Positive
Flammer (2013b)	1997-2011	Shareholder-sponsored CSR proposals	ESG	Positive
Giroud and Mueller (2010)	1976-1995	Industry concentration	G	Positive (10)
Giroud and Mueller (2011)	1990-2006	Governance index in highly concentrated industries	G	Positive (11)
Godfrey, Merrill, and Hansen (2009)	1991-2002/03	Social initiative participation	ESG	Positive
Gompers, Ishii, and Metrick (2003)	1990-1998	Shareholder rights	G	Positive
Hamilton (1995)	1989	Volume of toxic releases	E	Positive (12)

(continued)

TABLE 7: CONTINUED

STUDY AUTHORS	TIME PERIOD	ESG ISSUE	ESG FACTOR	IMPACT (*)
Jacobs, Singhal, and Subramanian (2010)	2004-2006	Environmental performance	E	Mixed findings
Johnson, Moorman, and Sorescu (2009)	1990-1999	Governance quality/shareholder rights	G	No effect/no relation
Karpoff, Lott, and Wehrly (2005)	1980-2000	Environmental regulation violations	ESG	Positive (13)
Karpoff, Lee, and Martin (2008)	1978-2002	Financial misrepresentation	G	Positive (14)
Kaspereit and Lopatta (2013)	2001-2011	Corporate sustainability and GRI	ESG	Positive
Klassen and McLaughlin (1996)	1985-1991	Environmental management awards	E	Positive
Lee and Faff (2009)	1998-2002	Corporate sustainability quality	ESG	Negative
Smithey Fulmer, Gerhart, and Scott (2003)	1998	Employee wellbeing	S	Positive (15)
Statman and Glushkov (2009)	1992-2007	Composite CSR index	ES	Positive
Yermack (1996)	1984-1991	Reductions in board size	G	Positive

(*) In the last column of the table, we state the effect of better ESG on stock price performance. 'Positive' indicates that better ESG has a positive effect on stock price performance. 'Mixed' indicates that better ESG has a mixed effect on stock price performance. 'Negative' indicates that better ESG has negative effect on stock price performance.

NOTES TO TABLE 7:

(1) Evidence from numerous countries.

(2) We count this study as having a 'positive' effect on stock prices because the authors conclude that a higher entrenchment index reflects bad governance structures. This means that by improving the entrenchment index, firms can perform relatively better.

(3) The positive effect is not apparent from 2004-2009. Therefore we label it 'mixed findings'.

(4) Extremely high and extremely low – with both resulting in improved firm performance.

(5) We treat this study as 'mixed findings' because the authors find a negative relation for the disaggregated CSR categories of environment and community, but a weakly positive one for employment.

(6) Counted as 'positive', because firms which suffer from environmental disasters experience a significant share price drop. Firms which are prepared for such events (by, for example, putting particular safety means in place), relatively benefit from experiencing no significant negative stock price reactions.

(7) Counted as 'positive', because excess compensation reduces the subsequent stock returns.

(8) We treat this study as 'positive' because firms that pollute less (i.e., firms that are more environmentally friendly) perform relatively better. No direct increase in share value observed - not stock price reaction per se.

(9) Counts as 'mixed findings' because index deletions cause significant negative returns implying that

more sustainable firms remain on the index and do not suffer from these negative valuation effects.

(10) Highly concentrated industries experience a significant negative stock price reaction to exogenous changes in the competitive environment.

(11) Governance pays off, especially in relatively less competitive industries.

(12) We treat this study as 'positive' in our calculations because lower volumes of toxic releases would lead to relatively better stock price movements.

(13) We count this study as 'positive' because bad performers suffer while good performers do relatively better.

(14) This study is counted as positive because it shows that firms which conduct financial misrepresentation are punished by stock markets through significant stock price declines.

(15) 'Positive' because the analysis reveals an outperformance of a market benchmark.

6. ACTIVE OWNERSHIP

Thus far in the report, we have analyzed existing research to demonstrate the positive correlation between ESG parameters and investment performance. We have demonstrated that companies with higher sustainability scores on average have a better operational performance, are less risky, have lower cost of debt and equity, and are better stock market investments.

An additional feature of note is that various studies have found a 'momentum effect' regarding ESG parameters. In other words, strategies that assign a higher portfolio weight to companies with improving ESG factors have outperformed strategies that focus on static ESG criteria.[170]

It is therefore logical for investors to seek to influence the companies into which they have invested in order to improve the company's ESG metrics. The investors then benefit from the companies' improvement once other market participants integrate the new information into their investment decisions.

This influencing, which is usually undertaken via 'active ownership', and ordinarily is a combination of three forms:

1. Proxy Voting:

   A low-cost tool to engage with firms in order to achieve better corporate sustainability/ESG standards. The benefits may seem logical, but the literature available to date only provides limited evidence that proxy voting is an effective tool to promote proper ESG standards, or that it is helpful in creating superior financial performance at investee firms.[171]
2. Shareholder Resolutions:

   Shareholder resolutions at an annual general meeting can be a powerful tool to influence a company's management. When a company wants to avoid publicity on a certain topic, it can concede in return for a withdrawal of the respective shareholder proposal.[172]
3. Management Dialogue:

   Dialogue with the invested company's management team is often used as a form of private engagement by institutional investors,[173] and successful management engagement has the potential to positively influence the stock price of target firms. It has been demonstrated that successful private engagement leads to an average annual alpha of 7.1% subsequent to successful engagement.[174]

170 See, for example, the study by MSCI ESG Research 'Optimizing Environmental, Social, and Governance Factors in Portfolio Construction' by Nagy, Cogan, and Sinnreich (2012).

171 See, for example, Gillan and Starks (2000) and (2007).

172 See, for example, Bauer, Braun, and Viehs (2012), and Bauer, Moers, and Viehs (2013). Bauer et al. (2013) provide detailed evidence on the determinants of shareholder proposal withdrawals, whereas Bauer et al. (2012) investigate which factors drive shareholder to file resolutions with certain companies. They also study the determinants of the resolutions' voting outcomes.

173 See, for example, Eurosif (2013), McCahery, Sautner, and Starks (2013), Bauer, Clark, and Viehs (2013), and Clark and Hebb (2004). Clark and Hebb (2004) argue that direct engagements by pension funds with their investee firms represent an expression of the long-term investing proposition. Bauer, Clark, and Viehs (2013) investigate the engagement activities of a large UK-based institutional investor and find that shareholder engagement is increasing over time. The engagement takes place within all three dimensions of ESG, and in some years the number of environmental and social engagements exceeds the number of governance engagements, pointing to a growing importance of environmental and social issues. The authors also show that private engagements suffer from a home bias effect: UK firms are more likely to be targeted than firms from other countries.

174 See the study by Dimson, Karakas, and Li (2013).

To date, active ownership has achieved a great deal, and this is likely to continue the more investors engage. Companies such as Hermes EOS, F&C, and Robeco offer attractive active ownership services enabling investors to join forces and set a common agenda and priorities, while the PRI clearing house[175] offers a platform for collaborative engagements with regard to priority themes.

Active ownership is a powerful tool. However, in its current form, it lacks the structural support of a key stakeholder group – the customer of the invested companies. In our view, the next step in the evolution of active ownership is to include the ultimate beneficiaries of institutional investors, who are at the same time the ultimate consumers of the goods and services of the invested companies, into the agenda and priority setting process.

SUCCESSFUL ENGAGEMENTS LEAD TO ALPHAS OF 7.1% IN THE YEAR FOLLOWING THE ENGAGEMENT.

Dimson, Karakas, and Li, 2013

175 More information on the UN PRI's clearing house can be found here: http://www.unpri.org/areas-of-work/clearinghouse/

7. FROM THE STOCKHOLDER TO THE STAKEHOLDER

The report has clearly demonstrated the economic relevance of sustainability parameters for corporate management and for investors. The main results of the report are:

1. 90% of the cost of capital studies show that sound ESG standards lower the cost of capital.
2. 88% of the studies show that solid ESG practices result in better operational performance.
3. 80% of the studies show that stock price performance is positively influenced by good sustainability practices.

Given the strength, depth, and breadth of the scientific evidence, demonstrating that sustainability information is relevant for corporate performance and investment returns, we conclude as follows:

1. It is in the best long-term interest of corporate managers to include sustainability into strategic management decisions.
2. It is in the best interest of institutional investors and trustees, in order to fulfill their fiduciary duties, to require the inclusion of sustainability parameters into the overall investment process.[176]
3. Investors should be active owners and exert their influence on the management of their invested companies to improve the management of sustainability parameters that are most relevant to operational and investment performance.
4. It is in the best interest of asset management companies to integrate sustainability parameters into the investment process to deliver competitive risk-adjusted performance over the medium to longer term and to fulfill their fiduciary duty towards their investors.[177]
5. The future of active ownership will most likely be one where multiple stakeholders (such as individual investors and consumers) are involved in setting the agenda for the active ownership strategy of institutional investors.
6. There is need for ongoing research to identify which sustainability parameters are the most relevant for operational performance and investment returns.

176 For similar arguments, see the so-called 'Freshfield Reports': United Nations Environment Programme Finance Initiative (2005) and (2009).

177 United Nations Environment Programme Finance Initiative (2005) and (2009).

This clear economic case for sustainable corporate management and investment performance can be supported on the basis of logic alone. The most important stakeholders for institutional investors like pension funds and insurance companies are the beneficiaries of these institutions, i.e., the people who live in the sphere of impact of the companies in the investment portfolios. Companies affect the environment and communities, provide employment, act as trading partners and service providers, as well as contribute through tax payments to the overall budget of countries.

Aside from the clear economic benefit for the investment portfolio, it is axiomatic that it is in the best interest of an individual to influence companies to demonstrate prudent behaviour with regard to sustainability standards since those companies have a direct impact on the life of the individual person.

Based on current trends[178], we expect that the inclusion of sustainability parameters into the investment process will become the norm in the years to come. This will be supported by a push from the European Union to increase companies' transparency and performance on environmental and social matters[179], on improving corporate governance[180] and on corporate social responsibility[181].

The most successful investors will most likely have set up continuous research programs regarding the most relevant sustainability factors to be considered in terms of industry and geography. In such a scenario, we expect that it will be a requirement for professional investors to have a credible active ownership strategy that goes beyond the traditional instruments that institutional investors currently employ.

The future of active ownership will most likely be one where multiple stakeholders such as individual investors and consumers will find it attractive to be involved in setting the agenda for the active ownership strategy of institutional investors.

178 See, PricewaterhouseCoopers (2014).

179 European Commission (2014a), and European Commission (2013a).

180 European Commission (2014b).

181 European Commission (2013b), European Commission (2013c), and European Commission (2013d).

8. BIBLIOGRAPHY

Accenture (2013*)*. *The UN Global Compact-Accenture CEO Study on Sustainability 2013*. Accenture Sustainability Services.

Adams, S. (2014*)*. *The World's Most Reputable Companies, Forbes.* Retrieved from http://www.forbes.com/sites/susanadams/2014/04/08/the-worlds-most-reputable-companies/

Aktas, N., Bodt, E. d., & Cousin, J.-G. (2011*)*. *Do Financial Markets Care About SRI? Evidence from Mergers and Acquisitions.* Journal of Banking and Finance, 35, 1753-1761.

Albuquerque, R., Durnev, A., & Koskinen, Y. (2013*)*. *Corporate Social Responsibility and Firm Risk: Theory and Empirical Evidence.* Working Paper: University of Iowa and Boston University.

Almashat, S., & Wolfe, S. (2012*)*. *Pharmaceutical industry and criminal and civil penalties. Research report published by Public Citizen.* Available at: http://www.citizen.org/documents/2073.pdf.

Ammann, M., Oesch, D., & Schmid, M. M. (2011*)*. *Corporate Governance and Firm Value: International Evidence.* Journal of Empirical Finance, 18, 36-55.

Ashbaugh-Skaife, H., Collins, D. W., & LaFond, R. (2004*)*. *Corporate Governance and the Cost of Equity Capital.* University of Wisconsin and University of Iowa.

Ashbaugh-Skaife, H., Collins, D. W., & LaFond, R. (2006*)*. *The Effects of Corporate Governance on Firms' Credit Ratings.* Journal of Accounting and Economics, 42, 203-243.

Attig, N., El Ghoul, S., Guedhami, O., & Suh, J. (2013*)*. *Corporate Social Responsibility and Credit Ratings.* Journal of Business Ethics, 117, 679-694.

Bailey, J., Bérubé, V., Godsall, J., & Kehoe, C. (2014*)*. *Focusing capital on the long-term. Short-termism: Insights from business leaders.* McKinsey and Company and Canada Pension Plan Investment Board (CPPIB).

Baron, D. P., Harjoto, M. A., & Jo, H. (2011*)*. *The Economics and Politics of Corporate Social Performance.* Business and Politics, 13(2), 1-46.

Barth, M. E., Konchitchki, Y., & Landsman, W. R. (2013*)*. *Cost of Capital and Earnings Transparency.* Forthcoming Journal of Accounting and Economics.

Barton, D., & Wiseman, M. (2014*)*. *Big investors have an obligation to end the plague of short termism.* Harvard Business Review, January-February 2014, 48-55.

Bauer, R., Braun, R., & Viehs, M. (2012*)*. *Industry Competition, Ownership Structure, and Shareholder Activism.* ECCE Working Paper. Maastricht University.

Bauer, R., Clark, G. L., & Viehs, M. (2013*)*. *The Geography of Shareholder Engagement: Evidence from a British Institutional Investor.* ECCE Working Paper. Maastricht University and University of Oxford.

Bauer, R., Derwall, J., & Hann, D. (2009*). *Employee Relations and Credit Risk.* Working Paper. Maastricht University and Tilburg University.

Bauer, R., & Hann, D. (2010*). *Corporate Environmental Management and Credit Risk.* ECCE Working Paper. University Maastricht, The European Centre for Corporate Engagement.

Bauer, R., Moers, F., & Viehs, M. (2013*). *The Determinants of Withdrawn Shareholder Proposals.* ECCE Working Paper. Maastricht University and Oxford University.

Bebchuk, L., & Cohen, A. (2005*). *The Costs of Entrenched Boards.* Journal of Financial Economics, 78, 409-433.

Bebchuk, L., Cohen, A., & Ferrell, A. (2010*). *What Matters in Corporate Governance?* Review of Financial Studies, 22(2**)**, 783-827.

Bebchuk, L., Cohen, A., & Wang, C. C. Y. (2013*). *Learning and the Disappearing Association between Governance and Returns.* Journal of Financial Economics, 108, 323-348.

Bebchuk, L., Cohen, A., & Wang, C. C. Y. (2011*). *Staggered Boards and the Wealth of Shareholders: Evidence from Two Natural Experiments.* Discussion Paper No. 697. Harvard University - John M. Olin Center for Law, Economics, and Business.

Beiner, S., Drobetz, W., Schmid, M. M., & Zimmermann, H. (2006*). *An Integrated Framework of Corporate Governance and Firm Valuation.* European Financial Management, 12(2), 249-283.

Benabou, R., & Tirole, J. (2010*). *Individual and Corporate Social Responsibility.* Economica, 77, 1-19.

Benson, B. W., & Davidson, W. N. (2010*). *The Relation Between Stakeholder Management, Firm Value, and CEO Compensation: A Test of Enlightened Value Maximization.* Financial Management, Autumn 2010, 929-963.

Berger, I. A., Cunningham, P. H., & Drumwright, M. E. (2007*). *Mainstreaming Corporate Social Responsibility: Developing Markets for Virtue.* California Management Review, 49(4), 132-157.

Beurden, P. v., & Gossling, T. (2008*). *The Worth of Values - A Literature Review on the Relation Between Corporate Social and Financial Performance.* Journal of Business Ethics, 82, 407-424.

Bhojraj, S., & Sengupta, P. (2003*). *Effect of Corporate Governance on Bond Ratings and Yields: The Role of Institutional Investors and Outside Directors.* Journal of Business, 76(3), 455-475.

Bonini, S., & Goerner, S. (2011*). *The Business of Sustainability: McKinsey Global Survey Results.* McKinsey&Company.

Borgers, A., Derwall, J., Koedijk, K., & Horst, J. t. (2013*). *Stakeholder relations and stock returns: On errors in investors' expectations and learning.* Journal of Empirical Finance, 22, 159-175.

Bradley, M., Chen, D., Dallas, G., & Snyderwine, E. (2008*). *The Effects of Corporate Governance Attributes on Credit Ratings and Bond Yields.*

Brammer, S., Brooks, C., & Pavelin, S. (2006*). *Corporate Social Performance and Stock Returns: UK Evidence from Disaggregate Measures.* Financial Management, 35(3**)**, 97-116.

Brammer, S., & Millington, A. (2008). *Does it Pay to be Different? An Analysis of the Relationship between Corporate Social and Financial Performance.* Strategic Management Journal, 29, 1325-1343.

Brown, L. D., & Caylor, M. L. (2006). *Corporate governance and firm valuation.* Journal of Accounting and Public Policy, 25, 409-434.

Busch, T., & Hoffmann, V. H. (2011). *How Hot is Your Bottom Line? Linking Carbon and Financial Performance.* Business & Society, 50(2), 233-265.

Butler, S. (2013). *Bangladeshi factory deaths spark action among high-street clothing chains, The Guardian - The Observer.* Retrieved from http://www.theguardian.com/world/2013/jun/23/rana-plaza-factory-disaster-bangladesh-primark

Cai, Y., Jo, H., & Pan, C. (2012). *Doing Well While Doing Bad? CSR in Controversial Industry Sectors.* Journal of Business Ethics, 108, 467-480.

Cajias, M., Fuerst, F., & Bienert, S. (2012). *Can Investing in Corporate Social Responsibility Lower a Company's Cost of Capital?* University of Regensburg and University of Cambridge.

Capelle-Blancard, G., & Laguna, M.-A. (2010). *How does the stock market respond to chemical disasters?* Journal of Environmental Economics and Management, 59, 192-205.

CBI. (2012). *Fixing Capitalism: Paul Polman interview.* Retrieved August 19, 2014, from http://www.cbi.org.uk/media-centre/news-articles/2012/11/fixing-capitalism-paul-polman-interview/

Chava, S. (2011). *Environmental Externalities and Cost of Capital.* Forthcoming Management Science.

Chava, S., Livdan, D., & Purnaanandam, A. (2009). *Do Shareholder Rights Affect the Cost of Bank Loans?* Review of Financial Studies, 22(8), 2973-3004.

Chazan, G., & Crooks, E. (2013). *Claims may push BP's spill bill to $90bn, Financial Times.* Retrieved from http://www.ft.com/cms/s/0/097ca8f4-6f6b-11e2-b906-00144feab49a.html?siteedition=uk#axzz2sYKnwqwN

Chen, K. C. W., Chen, Z., & Wei, K. C. J. (2011). *Agency Costs of Free Cash Flow and the Effect of Shareholder Rights on the Implied Cost of Equity Capital.* Journal of Financial and Quantitative Analysis, 46(1), 171-207.

Chen, K. C. W., Chen, Z., & Wei, K. C. J. (2009). *Legal protection of investors, corporate governance, and the cost of equity capital.* Journal of Corporate Finance, 15, 273-289.

Cheng, B., Ioannou, I. & Serafeim, G. (2014). *Corporate Social Responsibility and Access to Finance.* Strategic Management Journal, 35, 1-23.

Cheung, A. W. K. (2011). *Do Stock Investors Value Corporate Sustainability? Evidence from an Event Study.* Journal of Business Ethics, 99, 145-165.

Cichon, A. M., & Neghaiwi, N. (2014). *ESG & Credit Risk; New Study Demonstrates a Clear Link. RepRisk AG.* Retrieved from http://www.reprisk.com/marketing/wp-content/uploads/2014/04/Cornerstone-article.pdf.

Clark, G. L. & Hebb, T. (2004). *Pension Fund Corporate Engagement – The Fifth Stage of Capitalism.* Industrial Relations, 59(1), 142-171.

Clarkson, P. M., Li, Y., & Richardson, G. D. (2004). *The Market Valuation of Environmental Capital Expenditures by Pulp and Paper Companies.* The Accounting Review, 79(2), 329-353.

Coca-Cola Company. (2013*)*. *Setting a New Goal for Water Efficiency.* Retrieved August 19, 2014, from http://www.coca-colacompany.com/setting-a-new-goal-for-water-efficiency

Cochran, P. L., & Wood, R. A. (1984*)*. *Corporate Social Responsibility and Financial Performance.* Academy of Management Journal, 27(1), 42-56.

Core, J. E., Guay, W. R., & Rusticus, T. O. (2006*)*. *Does Weak Governance Cause Weak Stock Returns? An Examination of Firm Operating Performance and Investors' Expectations.* Journal of Finance, 61(2), 655-687.

Core, J. E., Holthausen, R. W., & Larcker, D. F. (1999*)*. *Corporate Governance, Chief Executive Officer Compensation, and Firm Performance.* Journal of Financial Economics, 51, 371-406.

Cormier, D., & Magnan, M. (1997*)*. *Investors' Assessment of Implicit Environmental Liabilities: An Empirical Investigation.* Journal of Accounting and Public Policy, 16, 215-241.

Cornett, M. M., Erhemjamts, O., & Tehranian, H. (2013*)*. *Corporate Social Responsibility and its Impact on Financial Performance: Investigation of the U.S. Commercial Banks.* Unpublished Working Paper. Bentley University, Boston College.

Cremers, K. J. M., & Ferrell, A. (2013*)*. *Thirty Years of Corporate Governance: Firm Valuation and Stock Returns.* Journal of Finance, forthcoming.

Cremers, K. J. M., & Nair, V. B. (2005*)*. *Governance Mechanisms and Equity Prices.* Journal of Finance, 60(6), 2859-2894.

Cremers, K. J. M., Nair, V. B., & Wei, C. (2007*)*. *Governance Mechanisms and Bond Prices.* Review of Financial Studies, 20(5), 1359-1388.

Darnall, N., Henriques, I., & Sadorsky, P. (2008*)*. *Do Environmental Management Systems Improve Business Performance in an International Setting?* Journal of International Management, 14, 364-376.

Davis, K. (1973*)*. *The Case for and against Business Assumption of Social Responsibilities.* Academy of Management Journal, 16(2), 312-322.

Deloitte Global Services Limited. (2012*)*. *Sustainability for consumer business companies: A story of growth.* Available at http://www.deloitte.com/assets/Dcom-Italy/Local%20Assets/Documents/Pubblicazioni/Sustainability%20for%20consumer%20business%20companies%202012.pdf.

Deng, X., Kang, J.-k., & Low, B. S. (2013*)*. *Corporate Social Responsibility and Stakeholder Value Maximization: Evidence from Mergers.* Journal of Financial Economics, 110, 87-109.

Derwall, J., Guenster, N., Bauer, R., & Koedijk, K. (2005*)*. *The Eco-Efficiency Premium Puzzle.* Financial Analysts Journal, 61(2), 51-63.

Derwall, J., & Verwijmeren, P. (2007*)*. *Corporate Governance and the Cost of Equity Capital: Evidence from GMI's Governance Rating. ECCE Research Note 06-01.* The European Centre for Corporate Engagement. University of Maastricht.

Dhaliwal, D. S., Li, O. Z., Tsang, A., & Yang, Y. G. (2011*)*. *Voluntary Disclosure and the Cost of Equity Capital: The Initiation of Corporate Social Responsibility Reporting.* The Accounting Review, 86(1), 59-100.

Dhaliwal, D. S., Radhakrishnan, S., Tsang, A., & Yang, Y. G. (2012*)*. *Nonfinancial Disclosure and Analyst Forecast Accuracy: International Evidence on Corporate Social Responsibility Disclosure.* The Accounting Review, 87(3), 723-759.

Dimson, E., Karakas, O., & Li, X. (2013). *Active Ownership.* London Business School, Boston College, and Temple University.

Doh, J. P., Howton, S. D., Howton, S. W., & Siegel, D. S. (2010). *Does the Market Respond to an Endorsement of Social Responsibility? The Role of Institutions, Information, and Legitimacy.* Journal of Management, 36(6), 1461-1485.

Dowell, G., Hart, S. L., & Yeung, B. (2000). *Do Corporate Global Environmental Standards Create or Destroy Market Value?* Management Science, 46(8), 1059-1074.

Eccles, R. G., Ioannou, I., & Serafeim, G. (2013). *The Impact of Corporate Sustainability on Organizational Processes and Performance*. Harvard Business School Working Paper Series. Harvard Business School.

Eccles, R. G., Krzus, M. P., Rogers, S., & Serafeim, G. (2012). *The Need for Sector-Specific Materiality and Sustainability Reporting Standards.* Journal of Applied Corporate Finance, 24(2), 65-71.

Eccles, R. G., Miller Perkins, K., & Serafeim, G. (2012). *How to Become a Sustainable Company.* Sloan Management Review, 53(4), 42-50.

Eccles, R. G., & Serafeim, G. (2013). *The performance frontier: Innovating for a sustainable strategy.* Harvard Business Review, May 2013, 50-60.

Eccles, R., & Serafeim, G. (2014). *Faculty Insights: Q&A with Robert G. Eccles and George Serafeim*. Harvard Business School - Executive Education. Retrieved from http://www.exed.hbs.edu/assets/Documents/qa-ascp-serafeim.pdf

Economist. (2010). *Suicides at Foxconn - Light and death.* http://www.economist.com/node/16231588

Economist. (2014). *BP: A Shrunken Giant.* The Economist, 410(8873). http://www.economist.com/news/business/21595935-british-oil-company-safer-smaller-sadder-and-wiser-its-disaster-gulf

Edmans, A. (2011). *Does the Stock Market Fully Value Intangibles? Employee satisfaction and equity prices.* Journal of Financial Economics, 101, 621-640.

Edmans, A. (2012). *The Link Between Job Satisfaction and Firm Value, With Implications for Corporate Social Responsibility.* Academy of Management Perspectives, 26(4), 1-19.

Edmans, A., Li, L., & Zhang, C. (2014). *Employee satisfaction, labor market flexibility, and stock returns around the world*. ECGI Working Paper.

El Ghoul, S., Guedhami, O., Kim, H., & Park, K. (2014). *Corporate Environmental Responsibility and the Cost of Capital: International Evidence. Working Paper.* University of Alberta, University of South Carolina, Korea Advanced Institute of Science and Technology.

El Ghoul, S., Guedhami, O., Kwok, C. C. Y., & Mishra, D. R. (2011). *Does Corporate Social Responsibility Affect the Cost of Capital?* Journal of Banking and Finance, 35, 2388-2406.

Ernst & Young. (2012). *Preparing for water scarcity: Raising business awareness on water issues.* Available at: http://www.ey.com/Publication/vwLUAssets/Preparing_for_water_scarcity_-_Business_awareness_on_water_issues/$File/Preparing_for_water_scarcity.pdf.

European Commission. (2013a). *Commission moves to enhance business transparency on social and environmental matters.* Retrieved August 23, 2014, from http://europa.eu/rapid/press-release_IP-13-330_en.htm

European Commission. (2013b). *Commission moves to enhance business transparency on social and environmental matters.* Retrieved August 23, 2014, from http://europa.eu/rapid/press-release_IP-13-330_en.htm

European Commission. (2013c). *Report on Corporate Social Responsibility: promoting society's interests and a route to sustainable and inclusive recovery.* Retrieved August 23, 2014, from http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A7-2013-0023+0+DOC+PDF+V0//EN&language=EN

European Commission. (2013d). *Report on corporate social responsibility: accountable, transparent and responsible business behaviour and sustainable growth.* Retrieved August 23, 2014, from http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A7-2013-0017+0+DOC+PDF+V0//EN&language=EN

European Commission. (2014a). *Disclosure of non-financial and diversity information by large companies and groups - Frequently asked questions.* Retrieved August 23, 2014, from http://europa.eu/rapid/press-release_MEMO-14-301_en.htm

European Commission. (2014b). *Improving corporate governance: Europe's largest companies will have to be more transparent about how they operate.* Retrieved August 23, 2014, from http://europa.eu/rapid/press-release_STATEMENT-14-124_en.htm

Eurosif. (2013). *Shareholder Stewardship: European ESG Engagement Practices 2013.* Brussels: Eurosif.

Faleye, O., & Trahan, E. A. (2011). *Labor-Friendly Corporate Policies: Is What is good for Employees Good for Shareholders?* Journal of Business Ethics, 101, 1-27.

Filbeck, G., & Preece, D. (2003). *Fortune's Best 100 Companies to Work for in America: Do they Work for Shareholders?* Journal of Business Finance & Accounting, 30(5), 771-797.

Fisher-Vanden, K., & Thorburn, K. S. (2011). *Voluntary corporate environmental initiatives and shareholder wealth.* Journal of Environmental Economics and Management, 62, 430-445.

Flammer, C. (2013a). *Corporate social responsibility and shareholder reaction: The environmental awareness of investors.* Academy of Management Journal, 56(3**)**, 758-781.

Flammer, C. (2013b). *Does Corporate Social Responsibility Lead to Superior Financial Performance?* Working Paper. University of Western Ontario.

Fogler, H. R., & Nutt, F. (1975). *A Note on Social Responsibility and Stock Valuation.* Academy of Management Journal, 18(1), 155-160.

Freeman, R. E. (1984). *Strategic Management: A Stakeholder Approach.* Boston: Pitman.

Friedman, M. (1970, September 13, 1970). *The Social Responsibility of Business is to Increase its Profits, The New York Times Magazine.* Retrieved from http://www.colorado.edu/studentgroups/libertarians/issues/friedman-soc-resp-business.html

Fulton, M., Kahn, B. M., & Sharples, C. (2012). *Sustainable Investing.* Establishing Long-Term Value and Performance: DB Climate Change Advisors - Deutsche Bank Group.

Galema, R., Plantinga, A., & Scholtens, B. (2008). *The Stocks at Stake: Return and Risk in Socially Responsible Investment.* Journal of Banking and Finance, 32, 2646-2654.

Garcia-Castro, R., Arino, M. A., & Canela, M. A. (2010*)*. *Does Social Performance Really Lead to Financial Performance? Accounting for Endogeneity*. Journal of Business Ethics, 92, 107-126.

Gillan, S. L., & Starks, L. T. (2000*)*. *Corporate Governance Proposals and Shareholder Activism: The Role of Institutional Investors.* Journal of Financial Economics, 57(2), 275-305.

Gillan, S. L., & Starks, L. T. (2007*)*. *The Evolution of Shareholder Activism in the United States.* Journal of Applied Corporate Finance, 19(1), 55-73.

Giroud, X., & Mueller, H. M. (2010*)*. *Does Corporate Governance Matter in Competitive Industries?* Journal of Financial Economics, 95, 312-331.

Giroud, X., & Mueller, H. M. (2011*)*. *Corporate Governance, Product Market Competition, and Equity Prices.* Journal of Finance, 66(2), 563-600.

Global Reporting Initiative. (2013a*)*. *Sustainability topics for sectors: What do stakeholders want to know?* Available at: https://www.globalreporting.org/resourcelibrary/sustainability-topics.pdf.

Global Reporting Initiative. (2013b*)*. *G4 sustainability reporting guidelines. Reporting principles and standard disclosures.* Available at: https://www.globalreporting.org/resourcelibrary/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf.

Global Sustainable Investment Alliance (GSIA*)*. (2013). *2012 Global Sustainable Investment Review.* Available at: http://gsiareview2012.gsi-alliance.org/pubData/source/Global%20Sustainable%20Investement%20Alliance.pdf.

Godfrey, P. C. (2005*)*. *The Relationship between Corporate Philanthropy and Shareholder Wealth: A Risk Management Perspective.* Academy of Management Review, 30(4), 777-798.

Godfrey, P. C., Merrill, C. B., & Hansen, J. M. (2009*)*. *The Relationship between Corporate Social Responsibility and Shareholder Value: An Empirical Test of the Risks Management Hypothesis.* Strategic Management Journal, 30, 425-445.

Gompers, P. A., Ishii, J., & Metrick, A. (2003*)*. *Corporate Governance and Equity Prices.* The Quarterly Journal of Economics, 118(1), 107-156.

Goss, A., & Roberts, G. S. (2011*)*. *The Impact of Corporate Social Responsibility on the Cost of Bank Loans.* Journal of Banking and Finance, 35, 1794-1810.

Greening, D. W., & Turban, D. B. (2000*)*. *Corporate Social Performance As a Competitive Advantage in Attracting a Quality Workforce.* Business & Society, 39(3), 254-280.

Guenster, N., Derwall, J., Bauer, R., & Koedijk, K. (2011*)*. *The Economic Value of Corporate Eco-Efficiency.* European Financial Management, 17(4), 679-704.

Hamilton, J. T. (1995*)*. *Pollution as News: Media and Stock Market Reactions to the Toxics Release Inventory Data.* Journal of Environmental Economics and Management, 28, 98-113.

Hart, S. L. (1995*)*. *A Natural-Resource-Based View of the Firm.* Academy of Management Review, 20(4), 986-1014.

Hart, S. L. (1997*)*. *Beyond Greening: Strategies for a Sustainable World.* Harvard Business Review, January-February 1997, 66-76.

Hart, S. L., & Ahuja, G. (1996). *Does it Pay to be Green? An Empirical Examination of the Relationship between Emission Reduction and Firm Performance.* Business Strategy and the Environment, 5, 30-37.

Hart, S. L., & Milstein, M. B. (2003). *Creating Sustainable Value.* Academy of Management Executive, 17(2), 56-67.

Hawn, O., & Ioannou, I. (2012). *Do Actions Speak Louder Than Words? The Case of Corporate Social Responsibility (CSR).* Working Paper. Boston University and London Business School.

Hespenheide, E. & Koehler, D. A. (2012). *Disclosure of long-term business value. What matters?* Deloitte Research.

Hillman, A. J., & Keim, G. D. (2001). *Shareholder Value, Stakeholder Management, and Social Issues: What's the Bottom Line?* Strategic Management Journal, 22, 125-139.

Hodal, K., Kelly, C., & Lawrence, F. (2014). *Revealed: Asian slave labour producing prawns for supermarkets in US, UK, The Guardian.* Retrieved from http://www.theguardian.com/global-development/2014/jun/10/supermarket-prawns-thailand-produced-slave-labour

Hoepner, A. G. F., & McMillan, D. G. (2009). *Research on 'Responsible Investment': An influential literature analysis comprising a rating, characterisation, categorisation & investigation.* Working paper: University of St. Andrews.

Huselid, M. A. (1995). *The Impact of Human Resource Management Practices on Turnover, Productivity, and Corporate Financial Performance.* Academy of Management Journal, 38(3), 635-672.

Husted, B. W. (2005). *Risk management, real options, and corporate social responsibility.* Journal of Business Ethics, 60, 175-183.

Ignatius, A. (2012). *Captain Planet. Retrieved August 19.* 2014, from http://hbr.org/2012/06/captain-planet/ar/1

Jacobs, B. W., Singhal, V. R., & Subramanian, R. (2010). *An Empirical Investigation of Environmental Performance and the Market Value of the Firm.* Journal of Operations Management, 28, 430-441.

Jayachandran, S., Kalaignanam, K., & Eilert, M. (2013). *Product and Environmental Social Performance: Varying Effect on Firm Performance.* Strategic Management Journal, 34, 1255-1264.

Jensen, M. C. (2002). *Value Maximization, Stakeholder Theory, and the Corporate Objective Function.* Business Ethics Quarterly, 12(2), 235-256.

Jiao, Y. (2010). *Stakeholder Welfare and Firm Value.* Journal of Banking and Finance, 34, 2549-2561.

Jiraporn, P., Jiraporn, N., Boeprasert, A., & Chang, K. (2013). *Does Corporate Social Responsibility (CSR) Improve Credit Ratings? Evidence from Geographic Identification.* Financial Management, forthcoming.

Jo, H., & Harjoto, M. A. (2011). *Corporate Governance and Firm Value: The Impact of Corporate Social Responsibility.* Journal of Business Ethics, 103, 351-383.

Johnson, S. A., Moorman, T. C., & Sorescu, S. (2009). *A Reexamination of Corporate Governance and Equity Prices.* Review of Financial Studies, 22(11), 4753-4786.

Karpoff, J. M., Lee, D. S., & Martin, G. S. (2008). *The cost to firms of cooking the books.* Journal of Financial and Quantitative Analysis, 43(3), 581-612.

Karpoff, J. M., Lott, J. R., J., & Wehrly, E. W. (2005). *The Reputational Penalties for Environmental Violations: Empirical Evidence.* Journal of Law and Economics, 48(2), 653-675.

Kaspereit, T., & Lopatta, K. (2013*). *The value relevance of SAM's corporate sustainability ranking and GRI sustainability reporting in the European stock markets.* Working Paper. Zentra Center for Transnational Studies, University of Oldenburg.

King, A., & Lennox, M. (2001*). *Does It Really Pay to Be Green? An Empirical Study of Firm Environmental and Financial Performance*. Journal of Industrial Ecology, 5(1), 105-116.

King, A., & Lennox, M. (2002*). *Exploring the Locus of Profitable Pollution Reduction.* Management Science, 48(2), 289-299.

Klassen, R. D., & McLaughlin, C. P. (1996*). *The Impact of Environmental Management on Firm Performance.* Management Science, 42(8), 1199-1214.

Klock, M. S., Mansi, S. A., & Maxwell, W. F. (2005*). Does Corporate Governance Matter to Bondholders? Journal of Financial and Quantitative Analysis, 40(4), 693-719.

Knight, Z., Robins, N., & Chan, W.-S. (2013*). *Natural capital - Identifying implications for economies.* HSBC Global Research.

Koh, P.-S., Qian, C., & Wang, H. (2013*). *Firm Litigation Risk and the Insurance Value of Corporate Social Responsibility.* Strategic Management Journal, forthcoming.

Konar, S., & Cohen, M. A. (2001*). *Does the Market Value Environmental Performance?* Review of Economics and Statistics, 83(2), 281-289.

Kurucz, E. C., Colbert, B. A., & Wheeler, D. (2008*). *The Business Case for Corporate Social Responsibility.* In

A. Crane, A. McWilliams, D. Matten, J. Moon & D. S. Siegel (Eds.*), *The Oxford Handbook of Corporate Social Responsibility*. Oxford: Oxford University Press.

Lanzatech. (2014*). *Lanzatech executive summary.* Available at: http://www.lanzatech.com/wp-content/uploads/2014/05/LanzaTech_Ex_Summary_8.5x11_05_09_2014.pdf.

Lawrence, F. (2014*). *Walmart, Tesco and Costco among retailers responding to revelations of slavery in prawn supply chains, The Guardian*. Retrieved from http://www.theguardian.com/global-development/2014/jun/10/walmart-tesco-costco-retailers-respond-prawn-supply-slaves.

Lee, D. D., & Faff, R. W. (2009*). *Corporate Sustainability Performance and Idiosyncratic Risk: A Global Perspective.* The Financial Review, 44, 213-237.

Lima, B. F., & Sanvicente, A. Z. (2013*). *Quality of Corporate Governance and Cost of Equity in Brazil.* Journal of Applied Corporate Finance, 25(1), 72-80.

Loew, T., Clausen, J., Hall, M., Loft, L., & Braun, S. (2009*). *Case Studies on CSR and Innovation: Company Cases from Germany and the USA.* Research report by future-verantwortung unternehmen, Institute4Sustainability, and Borderstep Institut für Innovation und Nachhaltigkeit. Available at: http://www.4sustainability.de/fileadmin/redakteur/bilder/Downloads/Publikationen/englische_Publikationen/Loew_Clausen_etal-Case_Studies_on_CSR_and_Innovation.pdf.

Marks and Spencer Group Plc. (2014*). *Plan A report 2014.* Available at: http://planareport.marksandspencer.com/downloads/M&S-PlanA-2014.pdf.

Margolis, J. D., Elfenbein, H. A., & Walsh, J. P. (2007*). *Does it Pay to be Good? A Meta-Analysis and Redirection of Research on the Relationship Between Corporate Social and Financial Performance.* Harvard University, University of California, and University of Michigan.

Margolis, J. D., & Walsh, J. P. (2003*)*. *Misery Loves Companies: Rethinking Social Initiatives by Business.* Administrative Science Quarterly, 48, 268-305.

Matsumura, E. M., Prakash, R., & Vera-Munoz, S. C. (2011*)*. *Carbon Emissions and Firm Value.* University of Wisconsin-Madison, Georgetown University, and University of Notre Dame.

McCahery, J. A., Sautner, Z., & Starks, L. T. (2013*)*. *Behind the Scenes: The Corporate Governance Preferences of Institutional Investors.* Tilburg Law School Research Paper. Tilburg University, University of Amsterdam, and University of Texas.

McGregor, R., & Stanley, A. (2014*)*. *Banks pay out $100bn in US fines, Financial Times.* Retrieved from http://www.ft.com/cms/s/0/802ae15c-9b50-11e3-946b-00144feab7de.html#axzz39z2MwDXF.

McWilliams, A., & Siegel, D. (2000*)*. *Corporate Social Responsibility and Financial Performance: Correlation or Misspecification?* Strategic Management Journal, 21, 6069-6609.

McWilliams, A., Siegel, D. S., & Wright, P. M. (2006*)*. *Corporate Social Responsibility. Rensselaer Working Papers in Economics.* Rensselaer Polytechnic Institute.

McWilliams, A., Siegel, D. S., & Wright, P. M. (2006*)*. *Corporate Social Responsibility: Strategic Implications.* Journal of Management Studies, 43, 1-18.

Mehran, H. (1995*)*. *Executive Compensation Structure, Ownership, and Firm Performance.* Journal of Financial Economics, 38, 163-184.

Menz, K.-M. (2010*)*. *Corporate Social Responsibility: Is it Rewarded by the Corporate Bond Market? A Critical Note.* Journal of Business Ethics, 96, 117-134.

Minor, D., & Morgan, J. (2011*)*. *CSR as Reputation Insurance.* California Management Review, 53(3), 40-59.

Miranda, M., Burris, P., Bingcang, J. F., Shearman, P., Briones, J. O., La Vina, A., & Menard, S. (2003*)*. *Mining and critical ecosystems: Mapping the risks.* World Resources Institute, Washington D.C.

Moveon.org Petitions. (2014*)*. *No Barilla Pasta for Us!*, from http://petitions.moveon.org/sign/no-barilla-pasta-for

MSCI. (2013*)*. *MSCI ESG Stats.* User Guide & Ratings Definition.

Nagy, Z., Cogan, D., & Sinnreich, D. (2012*)*. *Optimizing Environmental, Social, and Governance Factors in Portfolio Construction: An Analysis of Three ESG-tilted Strategies.* MSCI Research Insight.

Oikonomou, I., Brooks, C., & Pavelin, S. (2012*)*. *The Impact of Corporate Social Performance on Financial Risk and Utility: A Longitduinal Analysis.* Financial Management, 41(2), 483-515.

Organisation for Economic Co-Operation and Development (OECD*)*. (2014). *Glossary of industrial organisation economics and competition law.* Retrieved August 18, 2014, from http://www.oecd.org/regreform/sectors/2376087.pdf.

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003*)*. *Corporate Social and Financial Performance: A Meta-analysis.* Organization Studies, 24(3**)**, 403-441.

Pava, M. L., & Krausz, J. (1996*)*. *The Association Between Corporate Social-Responsibility and Financial Performance: The Paradox of Social Cost.* Journal of Business Ethics, 15, 321-357.

Philips. (2014). *Our Green Products.* Retrieved August 20, 2014, from http://www.philips.com/about/sustainability/ourenvironmentalapproach/greenproducts/index.page

Porter, M. E., & Kramer, M. R. (2002). *The Competitive Advantage of Corporate Philanthropy.* Harvard Business Review (December 2002), 5-16.

Porter, M. E., & Kramer, M. R. (2006). *Strategy and society: The link between competitive advantage and corporate social responsibility.* Harvard Business Review, December 2006, 78-93.

Porter, M. E., & Kramer, M. R. (2011). *Creating shared value. How to reinvent capitalism - and unleash a wave of innovation and growth.* Harvard Business Review, January-February 2011, 1-17.

Porter, M. E., & van der Linde, C. (1995a). *Green and Competitive.* Harvard Business Review (September-October), 120-134.

Porter, M. E., & van der Linde, C. (1995b). *Toward a New Conception of the Environment-Competitiveness Relationship.* Journal of Economic Perspectives, 9(4), 97-118.

Preston, L. E., & O'Bannon, D. P. (1997). *The Corporate Social-Financial Performance Relationship.* A Typology and Analysis. Business & Society, 36(4), 419-429.

PRI-UN Global Compact. (2013). *The Value-Driver Model: A Tool for Communicating the Business Value of Sustainability.* December 2013.

PricewaterhouseCoopers. (2010). *Green products: Using sustainable attributes to drive growth and value: Sustainable business solutions.* Available at: http://www.pwc.com/us/en/corporate-sustainability-climate-change/assets/green-products-paper.pdf.

PricewaterhouseCoopers. (2014). *Sustainability goes mainstream: Insights into investor views.* Available at: http://www.pwc.com/en_US/us/pwc-investor-resource-institute/publications/assets/pwc-sustainability-goes-mainstream-investor-views.pdf.

Reverte, C. (2012). *The Impact of Better Corporate Social Responsibility Disclosure on the Cost of Equity Capital*. Corporate Social Responsibility and Environmental Management, 19, 253-272.

Richard, O. C., Murthi, B. P. S., & Ismail, K. (2007). *The Impact of Racial Diversity on Intermediate and Long-Term Performance: The Moderating Role of Environmental Context*. Strategic Management Journal, 28, 1213-1233.

Roberts, P. W., & Dowling, G. R. (2002). *Corporate Reputation and Sustained Superior Financial Performance.* Strategic Management Journal, 23, 1077-1093.

Russo, M. V., & Fouts, P. A. (1997). *A Resource-Based Perspective on Corporate Environmental Performance and Profitability.* Academy of Management Journal, 40(3), 534-559.

Salzmann, O., Ionescu-Somers, A., & Steger, U. (2005). *The Business Case for Corporate Sustainability: Literature Review and Research Options.* European Management Journal, 23(1), 27-36.

Schauten, M. B. J., & van Dijk, D. (2011). *Corporate Governance and the Cost of Debt of Large European Firms.* Working Paper. RSM Erasmus University and Erasmus School of Economics.

Schneider, T. E. (2011). *Is Environmental Performance a Determinant of Bond Pricing? Evidence from the U.S. Pulp and Paper and Chemical Industries*. Contemporary Accounting Research, 28(5), 1537-1561.

Servaes, H., & Tamayo, A. (2013). *The Impact of Corporate Social Responsibility on Firm Value: The Role of Customer Awareness.* Management Science, 59(5), 1045-1061.

Sharfman, M. P., & Fernando, C. S. (2008). *Environmental Risk Management and the Cost of Capital.* Strategic Management Journal, 29, 569-592.

Simpson, W. G., & Kohers, T. (2002). *The Link Between Corporate Social and Financial Performance: Evidence from the Banking Industry.* Journal of Business Ethics, 35, 97-109.

Smith, C. (1994). *The New Corporate Philanthropy.* Harvard Business Review, 72(3), 105-116.

Smithley-Fulmer, I., Gerhart, B., & Scott, K. S. (2003). *Are the 100 Best Better?* An Empirical Investigation of the Relationship between Being a "Great Place to Work" and Firm Performance. Personnel Psychology, 56, 965-993.

Spicer, B. H. (1978). *Investors, Corporate Social Performance and Information Disclosure: An Empirical Study.* The Accounting Review, 53(1), 94-111.

Statman, M., & Glushkov, D. (2009). *The Wages of Social Responsibility.* Financial Analysts Journal, 65(4), 33-46.

Sustainability Accounting Standards Board. (2013). *Conceptual Framework.* Retrieved from the World Wide Web: http://www.sasb.org/approach/conceptual-framework/

Trucost. (2013). *Natural capital at risk: The top 100 externalities of business.* Available at: http://valuecsr.com/wp-content/uploads/2013/05/TEEB-Final-Report-web-SPv2.pdf.

UBS. (2013). *Nachhaltiges Investieren (Sustainable Investing).* Available at: http://www.ubs.com/global/de/wealth_management/wealth_management_research/ubs_research_focus.html

United Nations Environment Programme Finance Initiative. (2005). *A legal framework for the integration of environmental, social, and governance issues into institutional investment.*

United Nations Environment Programme Finance Initiative. (2009). *Fiduciary responsibility.* Legal and practical aspects of integrating environmental, social, and governance issues into institutional investment.

Verwijmeren, P., & Derwall, J. (2010). *Employee well-being, firm leverage, and bankruptcy risk.* Journal of Banking and Finance, 34, 956-964.

Virgin. (2012). *Virgin Atlantic biofuel breakthrough.* Retrieved August 20, 2014, from http://www.virgin.com/unite/business-innovation/virgin-atlantic-biofuel-breakthrough.

Vogel, D. (2005). *The Market for Virtue: The Potential and Limits of Corporate Social Responsibility.* Washington, D.C.: Brookings Institution Press.

Waddock, S. A., & Graves, S. B. (1997). *The Corporate Social Performance-Financial Performance Link.* Strategic Management Journal, 18(4), 303-319.

Watts, J. M., & Steger, I. (2014). *Thai Food Companies Hit by U.S. Human Trafficking Downgrade, The Wall Street Journal.* Retrieved from http://blogs.wsj.com/moneybeat/2014/06/26/thai-food-companies-hit-by-u-s-human-trafficking-downgrade/?mod=WSJ_qtoverview_wsjlatest.

Wills, J. (2014*). *LanzaTech turns pollution into fuel, The Guardian.* Retrieved from http://www.theguardian.com/sustainable-business/sustainability-case-studies-lanzatech-pollution-fuel.

World Economic Forum. (2014*). *Global Risks 2014.* Ninth edition. Available at: http://www3.weforum.org/docs/WEF_GlobalRisks_Report_2014.pdf.

World Green Building Council. (2013*). *The business case for green building.* Available at: http://www.worldgbc.org/files/1513/6608/0674/Business_Case_For_Green_Building_Report_WEB_2013-04-11.pdf

Wu, M.-W., & Shen, C.-H. (2013*). *Corporate Social Responsibility in the Banking Industry: Motives and Financial Performance.* Journal of Banking and Finance, 37, 3529-3547.

Yermack, D. (1996*). *Higher Market Valuation of Companies With a Small Board of Directors.* Journal of Financial Economics, 40, 185-211.