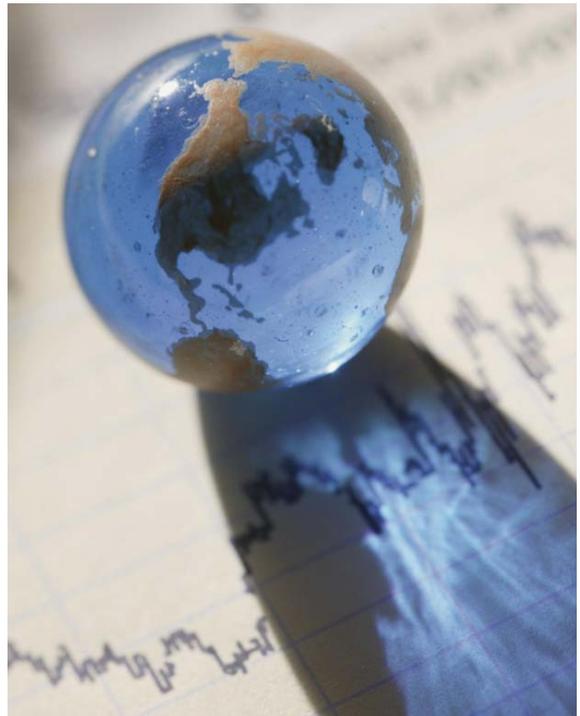


Sustainable Investing

Establishing Long-Term Value and Performance

Executive Summary

June 2012



Green paper available online: <http://www.dbcca.com/research>



Carbon Counter widget available for download at:
www.Know-The-Number.com

DB Climate Change Advisors
Deutsche Bank Group



Climate Change Investment Research

Mark Fulton

Managing Director

Global Head of Climate Change Investment Research
New York

Bruce M. Kahn, Ph.D.

Director

Senior Investment Analyst
New York

Camilla Sharples

Assistant Vice President

New York

Reviewed by:

George Serafeim

Assistant Professor of Business Administration, Harvard Business School

With thanks to the following contributors:

Brian Miranda

Summer Analyst, DBCCA

Eraj Zaidi

Consultant, DBCCA

Editorial Letter



Mark Fulton
Managing Director

Global Head of Climate Change Investment Research
New York

The evidence is compelling: Sustainable Investing can be a clear win for investors and for companies. However, many SRI fund managers, who have tended to use exclusionary screens, have historically struggled to capture this. We believe that ESG analysis should be built into the investment processes of every serious investor, and into the corporate strategy of every company that cares about shareholder value. ESG best-in-class focused funds should be able to capture superior risk-adjusted returns if well executed.

This is the key finding of our report in which we looked at more than 100 academic studies of sustainable investing around the world, and then closely examined and categorized 56 research papers, as well as 2 literature reviews and 4 meta studies – we believe this is one of the most comprehensive reviews of the literature ever undertaken.

Frequently, Sustainable Investing is stated to yield ‘mixed results’. However, by breaking down our analysis into different categories (SRI, CSR, and ESG) we have identified exactly where in the sprawling, diverse universe of so-called Sustainable Investment, value has been found.

By applying what we believe to be a unique methodology, we show that “Corporate Social Responsibility” (CSR) and most importantly, “Environmental, Social and Governance” (ESG) factors are correlated with superior risk-adjusted returns at a securities level. In conducting this analysis, it became evident that CSR has essentially evolved into ESG. At the same time, we are able to show that studies of fund performance – which have been classified “Socially Responsible Investing” (SRI) in the academic literature and have tended to rely on exclusionary screens – show SRI adds little upside, although it does not underperform either. Exclusion, in many senses, is essentially a values-based or ethical consideration for investors.

We were surprised by the clarity of the results we uncovered:

- 100% of the academic studies agree that companies with high ratings for CSR and ESG factors have a lower cost of capital in terms of debt (loans and bonds) and equity. In effect, the market recognizes that these companies are lower risk than other companies and rewards them accordingly. This finding alone should put the issue of Sustainability squarely into the office of the Chief Financial Officer, if not the board, of every company.
- 89% of the studies we examined show that companies with high ratings for ESG factors exhibit market-based outperformance, while 85% of the studies show these types of company’s exhibit accounting-based outperformance. Here again, the market is showing correlation between financial performance of companies and what it perceives as advantageous ESG strategies, at least over the medium (3-5 years) to long term (5-10 years).
- The single most important of these factors, and the most looked at by academics to date, is Governance (G), with 20 studies focusing in on this component of ESG (relative to 10 studies focusing on E and 8 studies on S). In other words, any company that thinks it does not need to bother with improving its systems of corporate governance is, in effect, thumbing its nose at the market and hurting its own performance all at the same time. In the hierarchy of factors that count with investors and the markets in general, Environment is the next most important, followed closely by Social factors.
- Most importantly, when we turn to fund returns, it is notable that these are all clustered into the SRI category. Here, 88% of studies of actual SRI fund returns show neutral or mixed results. Looking at the compositions of the fund universes included in the academic studies we see a lot of exclusionary screens being used. However, that

Editorial Letter

is not to say that SRI funds have generally underperformed. In other words, we have found that SRI fund managers have struggled to capture outperformance in the broad SRI category but they have, at least, not lost money in the attempt.

These conclusions go a long way towards explaining why the concept of sustainable investing has taken so long to gain acceptance and even now inspires indifference and even cynicism among many investors. It has been too closely associated for too long with the SRI fund manager results which are not only an extremely broad category (i.e. in terms of investment mandate), but historically were based more on exclusionary – as opposed to positive or best-in-class – screening. ESG investing, by contrast, takes the best-in-class approach. By analyzing the various categories within the universe of sustainable investing, we can now say confidently that the ESG approach, at an analytical level, works for investors and for companies both in terms of cost of capital and corporate financial performance (on a market and accounting basis). It is now a question of ESG best-in-class funds capturing the available returns.

So while Sustainable Investing is the term we use to refer to all these forms of investing, we believe using ESG factors in a best-in-class approach is emerging as the key investment methodology. The UN Principles for Responsible Investing (UN PRI) have perhaps done the most to promote ESG in recent years. As signatories and associated assets under management (AUM) to the UN PRI continue to grow from the current >1,000 signatories and \$30 Trillion of AUM, investors are showing that they recognize the advantages and want companies to recognize them too. It is no surprise, therefore, that Sustainability/ESG as a strategic investment process is increasingly and broadly being rolled out across public equity and fixed income portfolios.

Investors will seek out investment managers who understand the ESG advantage and can leverage the information arbitrage that exists in the studies we examined. Sustainable Investing can pay dividends, but it does require managers who have internalized this information into their investment process and can also create appropriate strategies to help capture the upside that undoubtedly exists in this approach.

Executive Summary

Executive Summary

In *Sustainable Investing: Establishing Long-Term Value and Performance* we have conducted 2 main analyses:

Firstly, we outline a history of Sustainable Investing (SI), from Ethical negative screens, to Socially Responsible Investing (SRI) to Responsible Investing (RI) – the latter using Environmental, Social and Governance (ESG) factors which we regard as the most current, best understood and most utilized corporate sustainability metrics. Alongside these developments in types of SI, we outline the development of Corporate Social Responsibility (CSR) over time, and the emergence of new techniques and concepts, such as Integrated Reporting (IR).

Secondly, we look at how SI factors have been correlated with superior risk adjusted returns in terms of (lower) cost of capital and (higher) financial performance at a security / market index and fund level. We do this through a broad data-set and a rigorous approach to classification of leading academic studies. And we do indeed find positive correlation in a majority of securities studies, particularly those that look at securities that rate highly with regard to CSR and/or ESG. However, SRI investment funds have clearly struggled more to capture these superior returns, with mostly neutral or mixed results with regard to outperformance.

This discussion and analysis is laid out in 4 different Sections to the paper:

- **Section I focuses on “The Evolution of Sustainable Investing”**, providing a discussion and clarification of key terminology used in this field, and how this has evolved over time;
- **Section II focuses on “Sustainability and Corporate Cost of Capital”**, or more specifically the relationship between a company’s performance with regard to CSR or ESG and it’s cost of debt and/or equity capital;
- **Section III focuses on “Sustainability and Corporate Financial Performance”**, or how the financial performance of securities relates to a company’s CSR, SRI or ESG performance; and
- **Section IV focuses on “Sustainability and Fund Performance”**, or how various SRI funds have performed relative to mainstream funds.

We also note the approach of shareholder engagement and activism in Appendix I, although a full review of this literature is beyond the scope of this paper.

One of the most common statements among investors is that Sustainable Investing is hard to define and provides “mixed” results – there is no really clear evidence it leads to a superior risk-adjusted returns. It is more a combination of “doing good” for society and “not doing harm” to investment returns.

We believe that this perception is a result of:

- Sustainable investing having been too closely associated for too long with the performance of SRI funds. These funds are not only an extremely broad category (i.e. in terms of investment mandate), but historically were based more on exclusionary (or negative) – as opposed to positive or best-in-class – screening.
- Academic studies over the past 15 years or so have not been aggregated and classified into appropriate categories, but rather “mixed” together and are thus easily described as having “mixed results”. By “unscrambling” them – as we do in this paper – a clearer picture emerges.

Executive Summary

In terms of categorizing academic studies that have looked at the results of SI (this analysis is included in Sections II, III and IV), the first key area to distinguish is indeed the type of study carried out, and whether it is:

- Based on CSR; or
- Based on SRI; or
- Based on ESG (and E, S and G separately).

Then it is a question of looking for correlation of high CSR, SRI or ESG scores in relation to with the following:

- The Cost of Capital (equity or debt – loans and bonds), which is also a fundamental measure of risk
- Corporate Financial Performance (market based returns and/or accounting measures)
- Fund Returns for those funds (mostly classified as SRI) trying to capture the above performance

We looked at over 100 studies and then we included in our analysis 56 research papers, as well as 2 literature reviews and 4 meta studies. To increase the confidence in the results presented in the reviewed papers we chose to include papers that met a minimum level of academic rigor. Accordingly, we excluded papers that have been working papers and have not been published for more than five years, we only included papers published in well known journals, and excluded papers where we were concerned with methodological problems in terms of selection bias and correlated omitted variables. We acknowledge that this process did exclude some studies that showed a negative correlation between CSR and financial performance as well as studies that showed a positive or no correlation. We believe that summarizing the evidence from more robust studies will provide us with a more comprehensive understanding of the potential of Sustainable Investing.

The key conclusions of our paper are as follows:

- Generally most studies find correlation rather than specifically trying to find causality. However, for an investor, this correlation provides key investment factors for portfolio construction.
- There is overwhelming academic evidence, within all (100%) of the studies that we have found showing that firms with high ratings for CSR and ESG factors have a lower (ex ante) cost of capital in terms of debt (loans and bonds) and equity. In effect they are lower risk in a fundamental (not necessarily short term volatility) sense. In some ways this is the most impressive result as it firmly puts the issue of Sustainability into the office of the Chief Financial Officer.
- There is compelling academic evidence that at the underlying security / market index level, that strong CSR and ESG factors are correlated with CFP outperformance, both market and accounting based. 100% of the studies we found show firms with high ratings for CSR exhibit financial out-performance¹, while 89% and 85% of the studies we found show firms with high ratings for ESG (or E, S or G) exhibit market based or accounting based outperformance, respectively². Time frames are hard to generalize from the studies as there is a broad array of sample date ranges, but most investors see this as a medium- (3-5 years) to long- (5-10 years) term opportunity. Governance has had the strongest influence, followed by Environment and Social factors, which we believe are increasingly gathering impact (particularly E).
- Looking at SRI securities studies, we find a less compelling story at the security level, although more positive and neutral than negative – 42% of studies that we have found show that high-scoring firms in terms of SRI exhibit higher market-based performance relative to lower-scoring securities.
- Studies of actual fund returns, which look at how investment managers have tried to capture the outperformance of SI, have tended to be through the SRI category, as that is how the majority of funds have been classified. Here are truly the “mixed” results, where the studies are mostly neutral – with 88% of studies that we have found

¹ Note here that the literature review we analyzed in this section (“The Worth of Values: A Literature Review on the Relation Between Corporate, Social, and Financial Performance”, Van Beurden & Gossling, *Journal of Business Ethics*, 2008) did find 9 neutral and 2 negative studies analyzing the CSP-CFP relationship, but is counted as a positive study as it found an overwhelming majority of positive studies (23) looking at this relationship

² Note that some studies looked at both market and accounting based performance and so are categorized twice in this paper

Executive Summary

showing neutral or mixed results. Fund managers have struggled to capture the outperformance with some exceptions at smaller more specialized fund. However, they have not generally underperformed – in fact, we found no academic studies that found underperformance at either the security or fund level.

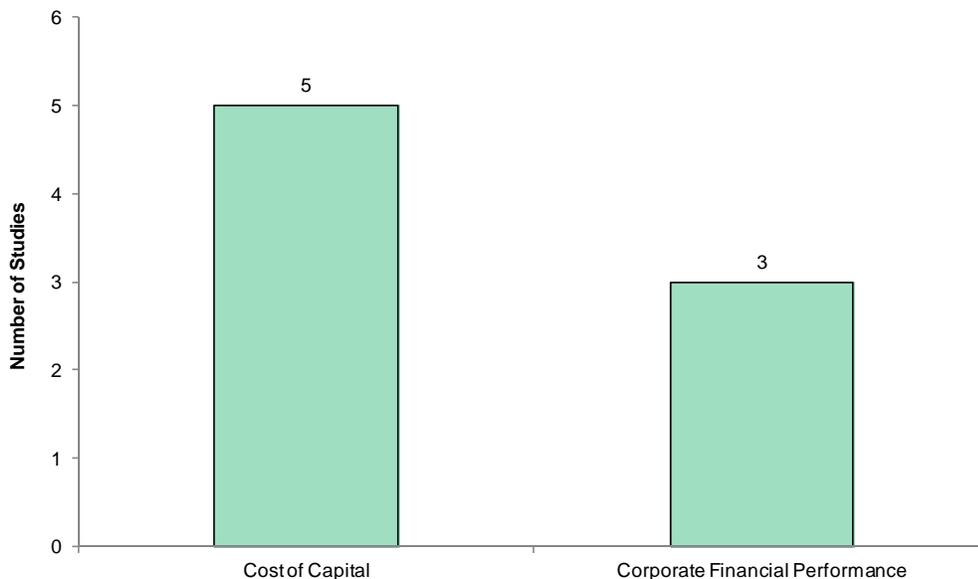
- In terms of any issues we encountered with regard to the robustness of our analysis or of the underlying academic studies, we have found fewer studies that analyze these metrics since the 2008 market disruption. However, correlations between asset classes have tended to narrow, so more recently it may be more complex to unravel what is correlating with what!

In effect, the conclusion is that there are superior risk-adjusted returns for investors, but managers need to take the right approach toward sustainable investing in order to capture these. For corporations, these are important results but the implication of lower cost of debt and equity capital must surely make this a key issue for any CFO, not just the CEO and Sustainability Officer.

Below are the key figures and tables extracted from the main body of the paper.

Summary of Key Findings in Individual Academic Studies – CSR, SRI and ESG

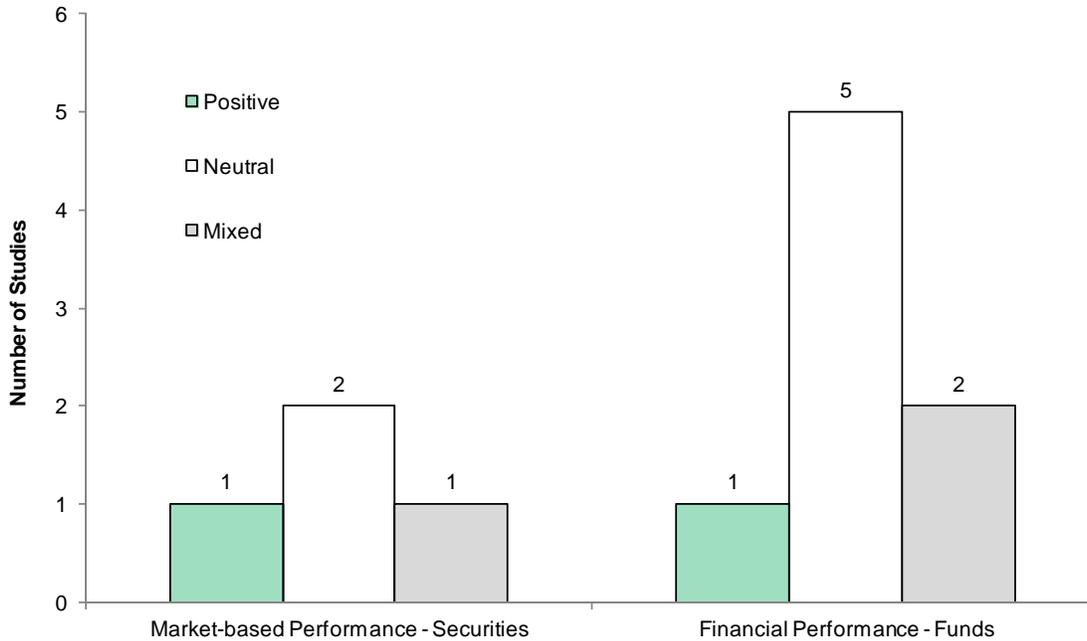
Summary of Individual Academic Studies Analyzing CSR Security Performance and Correlation with Cost of Capital or CFP (all positive)



*Note: only includes individual academic studies looking at securities (i.e. no literature reviews or meta-studies are included)
Source: DBCCA analysis 2012*

Executive Summary

Summary of Individual Academic Studies Analyzing SRI Security and Fund Performance and Correlation with Financial or Market Performance (positive, neutral and mixed)



Note: only includes individual academic studies looking at securities and funds (i.e. no literature reviews or meta-studies are included)
 Source: DBCCA analysis 2012

Summary of Individual Academic Studies Analyzing ESG Security Performance and Correlation with Cost of Capital or Market/Financial Performance (positive, neutral, mixed and negative)

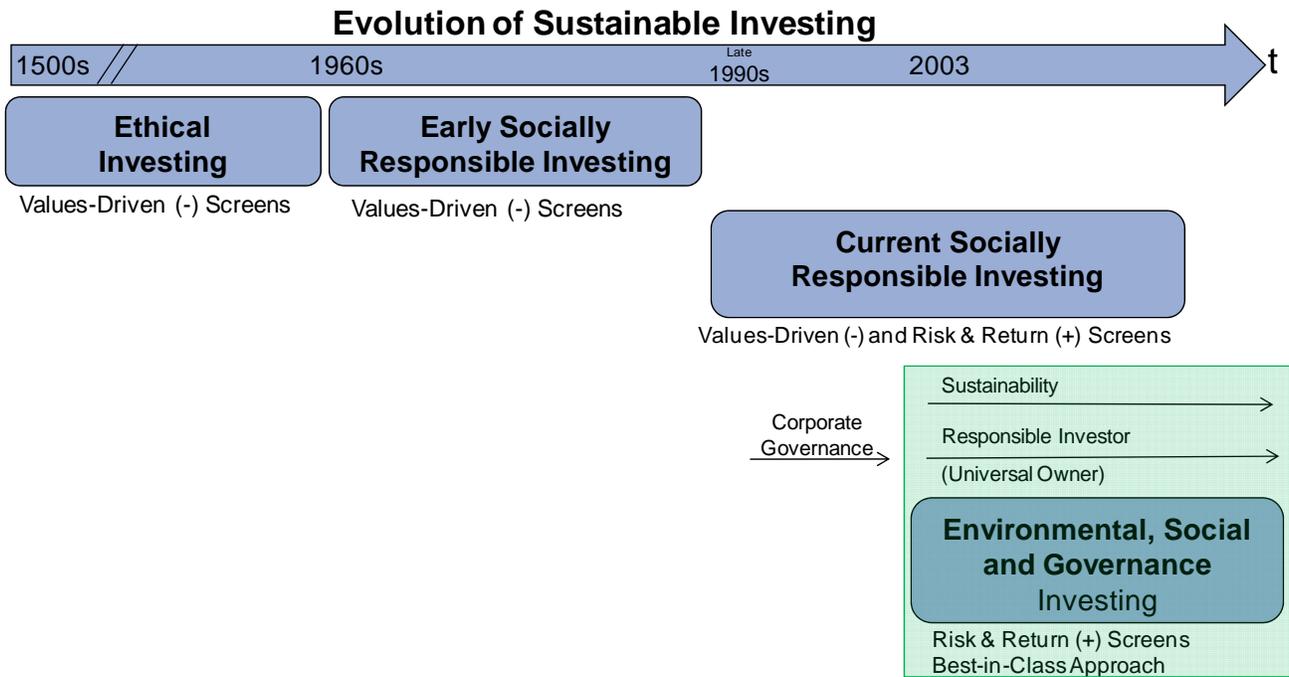


Note: only includes individual academic studies looking at securities and funds (i.e. no literature reviews or meta-studies are included)
 Source: DBCCA analysis 2012

Executive Summary

Section I: The Evolution of Sustainable Investing – Key Figures

Timeline of the Evolution of Sustainable Investing



Source: DBCCA analysis 2012

Executive Summary

Section II: Sustainability and Corporate Cost of Capital – Key Figures

Summary of CSR Studies: Correlation to Cost of Capital

CSR Academic Studies	Correlation to Lower Cost of Capital	No. of Studies	Date Range of Studies	Date Range of Samples
Security Studies	Positive	5	2006-2011	1991-2007
Security Studies	Negative	0	N.A	N.A

Source: DBCCA analysis 2012

Summary of ESG Studies: Correlation to Cost of Capital

Overall E, S & G and ESG Academic Studies	Correlation to Lower Cost of Capital	No. of Studies	Date Range of Studies	Date Range of Samples
Security Studies	Positive	14	2001-2011	1990-2007
Security Studies	Negative	0	N.A	N.A

Notes: Includes all studies looking at E, S or G factors independently; certain studies are also considered in Section III of this paper – see footnotes in subsequent table for greater detail

Source: DBCCA analysis 2012

Summary of ESG Studies – Disaggregated and Aggregate: Correlation to Cost of Capital

ESG Academic Studies Disaggregated	Correlation to Lower Cost of Capital	No. of Studies	Date Range of Studies	Date Range of Samples
Governance	Positive	8 ³	2003-2009	1990-2007
Governance	Negative	0	N.A	N.A
Environmental	Positive	5	2001-2011	1992-2007
Environmental	Negative	0	N.A	N.A
Social	Positive	1	2009	1995-2006
Social	Negative	0	N.A	N.A

Source: DBCCA analysis 2012

³ Bauer et al. (2009) is also included in Section III of this paper: both market and accounting-based returns analyses for G (positive results)

Executive Summary

Section III: Sustainability and Corporate Financial Performance – Key Figures

Summary of CSR Studies: Correlation to Corporate Financial Performance

CSR Individual Academic Studies	Correlation of CSP to Higher CFP	No. of Studies	Date Range of Studies	Date Range of Samples
Security Studies	Positive	3	2006-2011	1992-2010
Security Studies	Neutral	0	N.A	N.A
Security Studies	Negative	0	N.A	N.A
CSR Meta-Studies	Correlation of CSP to Higher CFP	No. of Studies	Date Range of Studies	Date Range of Samples
Meta-Studies	Positive	3	2003-2008	1972-2007
Meta-Studies	Neutral	0	N.A	N.A
Meta-Studies	Negative	0	N.A	N.A
CSR 1 Literature Review	Correlation of CSP to Higher CFP	No. of Studies Reviewed	Date Range of Studies	Date Range of Samples
Literature Review I	Positive	23	1991-2007	N.A
Literature Review I	Neutral	9	1991-2005	N.A
Literature Review I	Negative	2	1997-2006	N.A

Note: Literature Review: "The Worth of Values: A Literature Review on the Relation Between Corporate, Social, and Financial Performance", Van Beurden & Gossling, *Journal of Business Ethics*, 2008; date ranges for literature review are indicated as "N.A." (not available) because the author(s) do not list out the date range of the samples of each study included in the review
Source: DBCCA analysis 2012

Executive Summary

Summary of SRI Studies: Correlation to Market-Based Performance

SRI/ Individual Academic Studies	Correlation to Higher Market-Based Performance (Returns)	No. of Studies	Date Range of Studies	Date Range of Samples
Security Studies	Positive	1	2007	N.A
Security Studies	Neutral	2	2005-2009	1990-2007
Security Studies	Mixed	1	2009	1992-2007
Security Studies	Negative	0	N.A	N.A
SRI/ 1 Literature Review	Correlation to Higher Market-Based Performance (Returns)	No. of Studies Reviewed	Date Range of Studies	Date Range of Samples
Literature Review Part I: Securities	Positive	4	2005-2009	1991-2007
Literature Review Part I: Securities	Neutral	3	2005-2008	2005-2008
Literature Review Part I: Securities	Negative	0	N.A	N.A

Note: Literature review is: "A tale of values-driven and profit-seeking social investors", Derwall, Koedijk & Horst, *Journal of Banking and Finance*, 2011. Within this literature review there is a review of Securities studies, which looks at 7 studies; and a review of Fund studies which looks at 7 studies. The latter review is discussed in Section IV. See footnotes for double-counting of studies
Source: DBCCA analysis 2012

Executive Summary

Summary of ESG Studies: Correlation to Market or Accounting Based Performance

Overall E, S & G and ESG Individual Academic Studies	Correlation to Higher Market-Based Performance (Returns)	Correlation to Higher Accounting-Based Performance	No. of Studies	Date Range of Studies	Date Range of Samples
Security Studies	Positive	-----	15	1995-2011	1984-2009
Security Studies	Neutral	-----	2	2003-2010	1991-2007
Security Studies	Mixed	-----	1	2007	2003-2004
Security Studies	Negative	-----	0	N.A	N.A
Security Studies	-----	Positive	10	1995-2011	1989-2008
Security Studies	-----	Neutral	0	N.A	N.A
Security Studies	-----	Mixed	1	2007	2003-2004
Security Studies	-----	Negative	1	2003	1997-2002
S in ESG Meta-Studies	Correlation to Higher Market or Accounting-Based Performance		No. of Studies	Date Range of Studies	Date Range of Samples
Meta-Studies	Positive		1	2011	1991-2009
Meta-Studies	Neutral		0	N.A	N.A
Meta-Studies	Negative		0	N.A	N.A

Note: Includes all studies looking at E, S or G factors independently, in addition to all studies looking at ESG as an aggregate factor; certain studies are considered more than once in each category – see footnotes in subsequent table for greater detail. Meta study is: “Governance mechanisms and bond prices”, Cremers, Nair & Wei, *Review of Financial Studies*, 20 (5), pp.1359-1388, 2007
Source: DBCCA analysis 2012

Executive Summary

Summary of ESG Studies – Disaggregated and Aggregate: Correlation to Market or Accounting Based Performance

ESG Academic Studies and Meta Studies Disaggregated & Aggregated	Correlation to Higher Market-Based Performance (Returns)	Correlation to Higher Accounting-Based Performance	No. of Studies	Date Range of Studies	Date Range of Samples
Governance	Positive	-----	7 ⁴	2003-2011	1990-2008
Governance	Neutral	-----	1 ⁵	2008	1997-2004
Governance	-----	Positive	6	2006-2010	1990-2007
Governance	-----	Negative	1 ⁶	2003	1997-2002
Environmental	Positive	-----	3 ⁷	2003-2008	1994-2006
Environmental	Neutral	-----	1	2010	1996-2007
Environmental	-----	Positive	2 ⁸	2001-2010	1989-2007
Environmental	-----	Mixed	1 ⁹	2008	2003-2004
Social (Meta-Study)	Positive		1 ¹⁰	2011	1991-2009
Social	Positive	-----	4 ¹¹	1995-2010	1984-2009
Social	Mixed	-----	1	2011	1992-2008
Social	-----	Positive	2 ¹²	1995-2006	N.A
Aggregate	Positive	-----	1	2009	1999-2009

Note: See footnotes for double-counting of studies; only studies analyzed are included in this table. Meta study is: "Governance mechanisms and bond prices", Cremers, Nair & Wei, *Review of Financial Studies*, 20 (5), pp.1359-1388, 2007
Source: DBCCA analysis 2012

⁴ Bauer et al. (2009) and Ammann et al. (2010) are included in both market and accounting-based returns analyses for G (all positive results)

⁵ Bauer et al. (2003) is included in both market and accounting-based returns analyses for G (neutral and negative results, respectively). Bhagat and Bolton (2008) is included in both market and accounting-based analyses for G (neutral and positive results, respectively)

⁶ Bauer et al. (2003) is included in both market and accounting-based returns analyses for G (neutral and negative results, respectively). Bhagat and Bolton (2008) is included in both market and accounting-based analyses for G (neutral and positive results, respectively)

⁷ Guenster et al. (2006) is included in both market and accounting-based returns analyses for E (both positive results). Hassel and Semenova (2008) is included in both market and accounting-based returns analysis for E (positive and neutral results, respectively).

⁸ Guenster et al. (2006) is included in both market and accounting-based returns analyses for E (both positive results)

⁹ Hassel and Semenova (2008) is included in both market and accounting-based returns analysis for E (positive and neutral results, respectively).

¹⁰ Meta-study that analyzes S and market/accounting based returns: "Governance mechanisms and equity prices", Cremers, Martijn & Vinay b. Nair, *Journal of Finance* 6, 2859-2894, 2005

¹¹ Huselid (1995) is included in both market and accounting-based returns analyses for S (both positive results).

¹² Huselid (1995) is included in both market and accounting-based returns analyses for S (both positive results)

Executive Summary

Section IV: Sustainability and SRI Fund Performance – Key Figures

Summary of SRI Studies: Correlation to Market-Based Performance

SRI Academic Studies	Correlation to Higher Market-Based Performance (Returns)	No. of Studies	Date Range of Studies	Date Range of Samples
Fund Studies	Positive	1	2010	2001-2009
Fund Studies	Neutral	5 ¹³	2002-2011	1990-2010
Fund Studies	Mixed	2	2008-2011	1997-2007
Fund Studies	Negative	0	N.A	N.A
SRI Literature Review: Funds	Correlation to Higher Market-Based Performance (Returns)	No. of Studies Reviewed	Date Range of Studies	Date Range of Samples
Literature Review Part II: Funds	Positive	0	N.A	N.A
Literature Review Part II: Funds	Neutral	6 ¹⁴	2005-2007	1989-2003
Literature Review Part II: Funds	Negative	1	2005	1963-2001

Note: Literature review is: "A tale of values-driven and profit-seeking social investors", Derwall, Koedijk & Horst, *Journal of Banking and Finance*, 2011. Within this literature review there is a review of Securities studies, which looks at 7 studies; and a review of Fund studies which looks at 7 studies. The former is outlined in Section III. See footnotes for double-counting of studies
Source: DBCCA analysis 2012

¹³ Bauer et al. (2007) is included in this literature review, in addition to as an individual academic study for SRI fund performance (with neutral results for both)

¹⁴ Bauer et al. (2007) is included in this literature review, in addition to as an individual academic study for SRI fund performance (with neutral results for both)

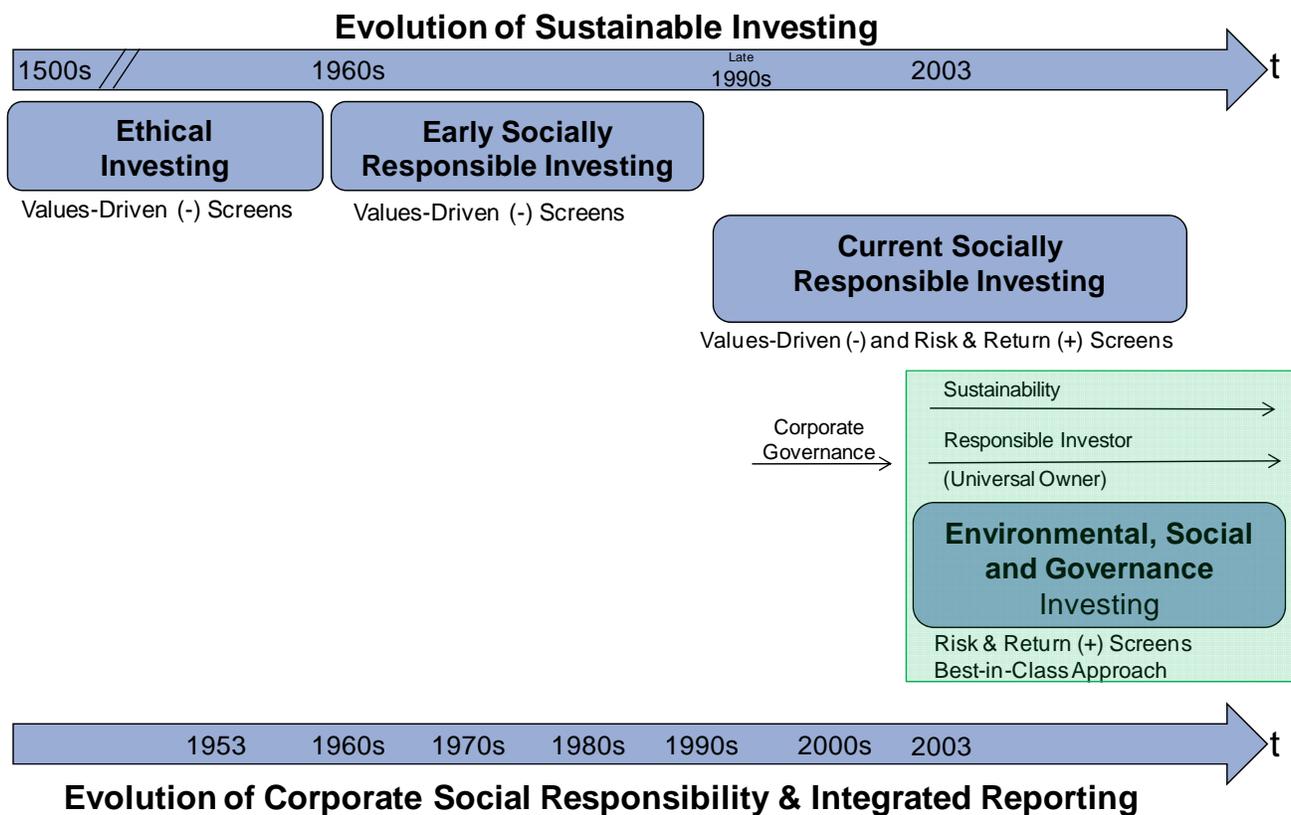
The Evolution of Sustainable Investing Introduction

Section I: The Evolution of Sustainable Investing

Introduction

Sustainable Investing has evolved during the last several decades. As a result, it is a field with a substantial number of terms and acronyms, many of which are used interchangeably or defined differently by various market participants. There is therefore substantial potential for confusion when looking at this sector, particularly for asset owners or asset managers considering adopting this type of investing or integrating some of its principles into their investment process. In order to help simplify the topic, Figure 1 below illustrates the evolution of Sustainable Investing (SI), and its related field Corporate Social Responsibility (CSR).

Figure 1: Timeline of the Evolution of Sustainable Investing



*Note: See full discussion of Evolution of CSR on pages 22-27
Source: DBCCA analysis 2012*

We now set out definitions of these key terms by looking at the evolution of sustainable investing and its corporate counterpart, CSR, both of which interact with each other over time.

The Evolution of Sustainable Investing

Key Terminology and Concepts

Key Terminology and Concepts in the Evolution of Sustainable Investing

Figure 2: Table of Key Terms used in the Field of Sustainable Investing

Concept	Definition	Source
Ethical Investment	Investment philosophy guided by moral values, ethical codes or religious beliefs. Investment decisions include non-economic criteria. This practice has traditionally been associated with negative (or exclusionary) screening.	Mercer, 2007
Values-Driven Screening	Values-based (also referred to as negative or exclusionary) screening is defined as an investment approach that excludes some companies or sectors from the investment universe based on criteria relating to their policies, actions products or services. Investments that do not meet the minimum standards of the screen are not included in the investment portfolio. Criteria may include environmental, social, corporate governance or ethical issues. For example, specific industries or sectors such as weapons manufacturers, or specific companies considered to be poor environmental, social or governance (ESG) executors.	Mercer, 2007
Socially Responsible Investment (SRI)	SRI, as it first emerged, was very similar to ethical investing in that it allowed a level of trade-off between corporate social and financial performance when making investment decisions, and predominantly utilized exclusionary screening. However, modern SRI represents an investment process that seeks to achieve social and environmental objectives alongside financial objectives, utilizing both values-driven, and risk and return screening.	DBCCA analysis 2012; Mercer, 2007
Sustainability	Sustainability or sustainable development refers to the concept of meeting present needs without compromising the ability of future generations to meet their needs. It encompasses social welfare, protection of the environment, efficient use of natural resources and economic well-being.	Brundtland Report, 1987; Mercer, 2007
Risk & Return Screening	Risk and return (or positive) screening is defined as an investment approach that includes non-traditional criteria relating to the policies, actions, products or services of securities issuers. Portfolios are tilted towards stocks that rate well on the nominated criteria, which can include ESG or ethical issues.	Mercer, 2007
Corporate Governance	Procedures and/or processes according to which an organization is directed and controlled. Corporate Governance structure specifies the distribution of rights and responsibilities among the different participants in the organization – such as the board, managers, shareholders and other stakeholders – and lays down the rules and procedures for decision making. National and international best practice standards exist.	OECD, as cited in Mercer, 2007
Universal Owner	A large asset owner who, as a consequence of its size, owns a slice of the whole economy and market through its portfolios. Universal owners adapt their actions with the intent of improving long-term performance by benefiting the whole economy and market in a logical but ambitious extension of sustainable investing. They justify these actions on financial grounds.	Towers Watson, 2011
Environmental, Social and Corporate Governance (ESG)	The term that has emerged globally to describe the environmental, social and corporate governance issues that investors are considering in the context of corporate behavior. No definitive list of ESG issues exists, but they typically display one or more of the following characteristics: (i) issues that have traditionally been considered non-financial or not material; (ii) a medium or long-term time horizon; (iii) qualitative objectives that are not readily quantifiable in monetary terms; (iv) externalities not well captured by market mechanisms; (v) a changing regulatory or policy framework; (vi) patterns arising throughout a company's supply chain; and (vii) a public-concern focus.	Mercer, 2007
Best-in-Class Approach	Investment approach that focuses on companies that have historically performed better than their peers within a particular industry or sector on measures of environmental, social and corporate governance issues. This typically involves positive or negative screening or portfolio tilting.	Mercer, 2007
Responsible Investment	The integration of ESG considerations into investment management processes and ownership practices in the belief that these factors can have an impact on financial performance, in particular over the medium to longer-term. Responsible Investing (RI) can be practiced across all asset classes.	Mercer, 2007; DBCCA analysis

The Evolution of Sustainable Investing

Key Terminology and Concepts

Sustainable Investment	Here, we define Sustainable Investment as including all forms of Socially Responsible Investing, ESG-oriented investing. In its most developed form we believe it uses ESG factors in a best in class framework similar to the Responsible Investor definition.	DBCCA analysis 2012
-------------------------------	---	---------------------

Note: Mercer, 2007 report is entitled "The language of responsible investment: An industry guide to key terms and organizations"

Ethical Investing (Values-Driven): 1500s Onwards

Negative screening, or deliberately opting not to invest in companies or industries that do not align with personal values, was the earliest and most popular form of socially-oriented – or socially responsible – investing (also known as "SRI") up until the mid-1990s. The investment approach is traditionally rooted in the practices of religious believers (of Judaism, Christianity, and Islam) who sought to align their investments with their faiths – for example, Quakers during the 1500s and Churches during the 1920s that advocated against gambling, tobacco, and alcohol. The modern institutionalization of ethical exclusions arguably began at the height of the Vietnam War in 1971 with the establishment of the Pax World Fund, the first ethical mutual fund. At that time, the Pax World Fund offered an alternative investment option for those opposed to the weapons production of nuclear and military arms. In the 1970s, the movement became increasingly globalized through the "Sullivan Principals"¹⁵, which underpinned an international effort that sought to selectively divest in South Africa, managed at the time under apartheid.

Early Socially Responsible Investing (Values-Driven): 1960s – Mid 1990s

Founded largely out of religious beliefs, early SRI is virtually indistinguishable from ethical investing in terms of the type of values-driven investment screening used. However, SRI emerged as a new concept and investment strategy in its earliest form in the 1960s from the foundations of ethical investing, and quickly became the "catch-all" term for ethically-oriented investing that continues to this day. **During this earlier period (1960s to mid-1990s), SRI referred to a values-based or exclusionary investment approach** that primarily took account of corporate social, ethical and environmental behavior and particularly after the 1987 Brundtland Commission¹⁶, the resultant "sustainability" of a company. Mainstream popular and political support for sustainable development gained further momentum following the UN's 1992 Conference on Environment and Development (UNCED), which was held in Rio de Janeiro.

Current Socially Responsible Investing (Values-Driven, and Risk & Return): Late 1990s – Present

As SRI developed into its modern form, it shifted further away from an emphasis on ethics and toward incorporating environmental, social and corporate governance factors into investment decisions, thereby becoming an investment strategy that also explicitly seeks investment returns. In general, **current SRI employs a mix of negative (values-driven) and positive (risk and return driven) screening techniques to maximize financial return within a socially aligned investment strategy.** Common techniques currently utilized by modern SRI investors are as follows: "ethical negative screening, environmental/social negative screening, positive screening, community and social investing, best-in-class, financially-weighted best-in-class, sustainability/climate change themes, constructive engagement, shareholder activism, integrated analysis, and norms-based screening"¹⁷. The key development between early and modern SRI has been the growth in shareholder activism and introduction of positive-screening investing, which allows investors to express their values without compromising portfolio diversification or long-run performance. In this way, SRI ultimately amalgamates social,

¹⁵ The Sullivan Principles are the names of two corporate codes of conduct, developed by the African-American preacher Rev. Leon Sullivan, promoting corporate social responsibility. The original Sullivan Principles were developed in 1977 to apply economic pressure on South Africa in protest of its system of apartheid. The principles eventually gained wide adoption among United States-based corporations. The new Global Sullivan Principles were jointly unveiled in 1999 by Rev. Sullivan and United Nations Secretary General Kofi Annan. The new and expanded corporate code of conduct, as opposed to the originals' specific focus on South African apartheid, were designed to increase the active participation of corporations in the advancement of human rights and social justice at the international level. Source: Wikipedia

¹⁶ The 1987 publication of the World Commission on Environment and Development headed by Brundtland coined the term sustainable development and defined it as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs," and must entail "a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs". Source: Wikipedia

¹⁷ "After the Crunch: The Future of Sustainable Investing and Carbon Finance", Krosinsky, C. & Robins, N., *Carbon Finance Speaker Series at Yale*, April 7 2009

The Evolution of Sustainable Investing

Key Terminology and Concepts

environmental and traditional (economic) firm valuation into a “Triple Bottom Line”¹⁸. This much cited concept that ecological, social and economic criteria must be met before organizational success can be achieved paved the way for the “Responsible Investor,” who considers financial – as well as environmental, social and governance – factors when valuing companies.

ESG / Responsible Investing (Risk & Return, Best-in Class): 2003 – Present

In the early 2000s **there emerged a renewed interest and desire for a more concrete definition of SRI to include corporate governance, in addition to financial, social and environmental factors.** Academics and investors were placing increasing emphasis (particularly in the US) on the importance of good corporate governance in a company’s risk and return profile – a trend partly driven by Moskowitz’s classic analysis of “100 Best Companies to Work for” (1998)¹⁹ and prominently manifested in the passage of the Sarbanes-Oxley Act in 2002²⁰. Institutional investors, in particular, were increasingly interested in the risks and opportunities presented by the extra-financial performance of a company, given the growing perception of large asset owners as “Universal Owners”, tied to the performance of markets or economies as a whole.

Also crucial to this new definition was the need for a more risk and return (or profit) – driven focus to this type of investing, given the longstanding debate surrounding the underperformance (or not) of SRI in the 1980s to the early 21st century. It was at this time that there emerged a new, risk and return driven form of SRI, soon to be coined as “Responsible Investing”.

In order to formalize and define this emerging trend, in 2003 the UNEP Finance Initiative (UNEP FI) formed an Asset Management Working Group and commissioned 11 reports from 9 mainstream research institutions (due in 2004) to study the financial materiality of Environmental, Social and Governance (ESG) issues to securities valuation – a key finding being **“agreement [among analysts] that environmental, social and corporate governance issues affect long-term shareholder value... [and] in some cases those effects may be profound”**²¹. Two years later, in April 2006, the UN Secretary General Kofi Annan launched the Principles for Responsible Investing, which mainstreamed SRI, coined a new term for risk and return–driven investors (“Responsible Investors”), and refined the definition as those investors who incorporate ESG factors into their investment process.

Sustainable Investing

In this paper, we use the term “Sustainable Investing (SI)” as a “catch-all” term to refer to all forms of Socially Responsible Investing, ESG-oriented investing (which is more similar to a CSR approach), and Responsible Investing. The most modern wave of Sustainable Investors are Responsible Investors focused on best-in-class ESG – often institutional investors (who sometimes also adhere to the concept of the “Universal Owner”) –, and who seek a sustained competitive advantage and outperformance, partly by evaluating a company’s overall management ability to adapt to a dynamic business climate and create enduring value. This is often in terms of a best-in-class approach.

Or put another way: “While ethical or [early] socially responsible investing is driven by the values of the investor (from the inside out)”, responsible investing “is addressing changing external realities (from the outside in).”²² These types of investors also typically exhibit active ownership, which entails shareholder engagement with the corporations they invest in, rather than just negative screening techniques.

¹⁸ Coined by John Elkington in his 1998 book “Cannibals with Forks: the Triple Bottom Line of 21st Century Business”

¹⁹ This report asserted that corporate governance maximized productivity, ensured corporate efficiency and led to the sourcing and utilizing of superior management talents.

²⁰ The corporate scandals in the early 2000s of companies such as Enron and Worldcom led to the politically significant passage of the Sarbanes-Oxley Act (2002). The Act created or enhanced the standards of financial reporting and disclosures among public companies, and it called for tighter accountability measures within firms.

²¹ Source: “The Materiality of Social, Environmental and Corporate Governance Issues to Equity Pricing”, *UNEP FI*, June 2004. Other 2 key findings were as follows: (i) there exist difficulties in comparative analysis due to the range of reporting practices for ESG; and (ii) clear government positions (i.e. policy) greatly aids financial research into ESG issues.

²² “After the Crunch: The Future of Sustainable Investing and Carbon Finance”, Krosinsky, C. & Robins, N., *Carbon Finance Speaker Series at Yale*, April 7 2009

The Evolution of Sustainable Investing

Key Terminology and Concepts

Development of Corporate Social Responsibility (CSR): 1950s – Present

Figure 3: Table of Key Terms Related to Corporate Social Responsibility and Shareholder Engagement

Concept Name	Definition	Source
Corporate Social Responsibility	Approach to business which takes into account economic, social, environmental and ethical impacts for a variety of reasons, including mitigating risk, decreasing costs, and improving brand image and competitiveness. This approach is sometimes implemented by means of a comprehensive set of policies and procedures integrated throughout a company, encompassing a wide range of practices, including: corporate governance, employee relations, supply chain relationships, customer relationships, environmental management, philanthropy and community involvement.	Mercer, 2007
Stakeholder	Individuals or organizations with an interest in the actions and impacts of an organization. They may be customers, suppliers, shareholders, employees, communities, members of special interest groups, non-governmental organizations, or regulators.	Mercer, 2007
Active Ownership	The voting of company shares and/or the engaging of corporate managers and boards of directors in dialogue on ESG issues as well as on business strategy issues. Increasingly pursued in an effort to reduce risk and enhance shareholder value. Can also be referred to as “Shareholder Activism”.	Mercer, 2007
Shareholder Engagement	The practice of monitoring corporate behavior and seeking changes where appropriate through dialogue with companies or through the use of share ownership rights, such as filing shareholder resolutions. Shareholder engagement is often employed in attempts to improve a company’s ESG performance.	Mercer, 2007
Proxy Voting	The delegation of voting rights from entitled voters who do not attend shareholders’ meetings to delegates who vote on their behalf. Proxy voting allows shareholders to exercise their right to vote without committing the time involved in actually attending meetings. Proxy voting policies can include specific guidance on ESG and ethical decisions.	Mercer, 2007
Corporate Social Performance	A business organization’s configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm’s societal relationships.	Wood, 1991:693 ²³
Corporate Financial Performance	A term widely used within academia to refer to the financial or economic performance of a company. In general, academic studies have tended to focus on either financial accounting measures (for example, Return on Assets or Return on Equity) or economic measures (usually a company’s stock performance) to measure, rank and compare the CFP of different companies.	DBCCA analysis 2012
Corporate Citizenship	A term used to describe a company’s role in, or responsibilities towards society. For this reason it is sometimes used interchangeably with corporate social responsibility, although this concept is extended by some to refer to the political activities – and perhaps even rights – of a company.	DBCCA analysis 2012
Integrated Reporting	A growing practice of corporate reporting that demonstrates the linkage between an organization’s financial performance in relation to environmental, social, and governance (ESG) factors that underlie the organization’s core activities. By “integrating” financial and non-financial data, Integrated Reporting can help businesses take more sustainable decisions and enable investors and other stakeholders to transparently understand an organizations true performance.	DBCCA analysis 2012
Triple Bottom Line	A holistic approach to measuring a company’s performance on environmental, social and economic issues. The triple bottom line focuses companies not just on the economic value they add, but also on the environmental and social value they add or destroy. This concept is frequently utilized in CSR or sustainability reporting.	Mercer, 2007; DBCCA analysis 2012

²³ “Corporate social performance revisited”, Wood, *Academy of Management Review*, 16(4): 691-71, 1991

The Evolution of Sustainable Investing

Key Terminology and Concepts

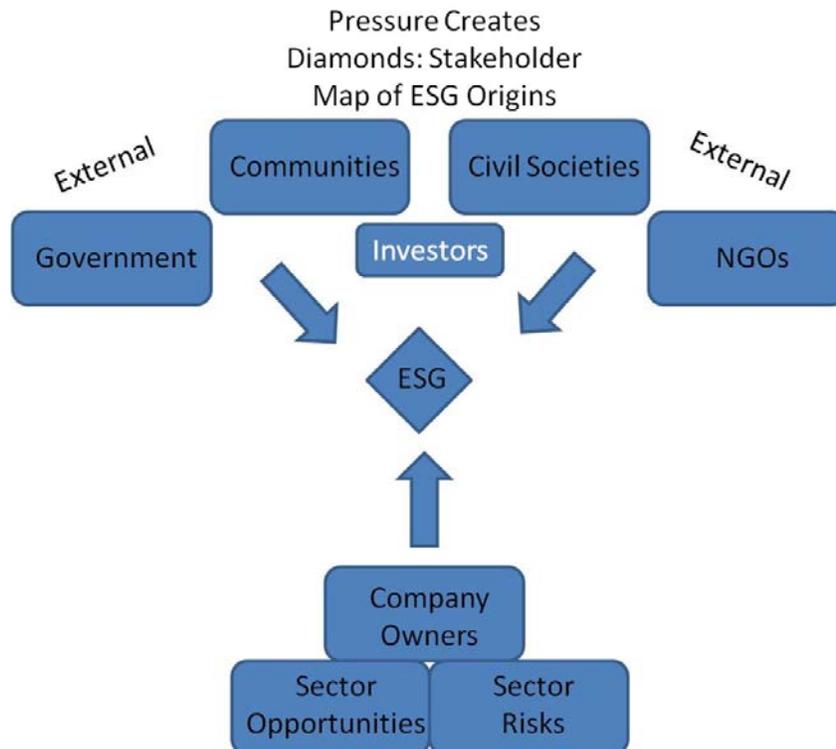
Corporate Shared Value	Concept that companies need to develop a principle of shared value, which “involves creating economic value in a way that also creates values for society by addressing its needs and challenges.” The key to this new approach is placing shared value at the center of what companies do (hand-in-hand with profits), as opposed to the periphery, thereby reconnecting company success with social progress.	Porter and Kramer, 2006 ²⁴
Sustainability	Sustainability or sustainable development refers to the concept of meeting present needs without compromising the ability of future generations to meet their needs. It encompasses social welfare, protection of the environment, efficient use of natural resources and economic well-being.	Brundtland Report, 1987; Mercer, 2007

Note: Mercer, 2007 report is entitled “The language of responsible investment: An industry guide to key terms and organizations”

Corporate Social Responsibility and Shareholder Activism

As previously outlined in Figure 1, Corporate Social Responsibility has evolved over time alongside the evolutionary phases of SI (ethical investing, early SRI, current SRI, and responsible/ESG investing). In many senses it is the corporate side of, or response to, the evolution of Sustainable Investing, driven by a combination of civil society, government, NGOs and investors – the latter tending to “push” corporate attention to this issue via shareholder engagement, active ownership and proxy voting. Efforts such as Moxy vote and the As You Sow Foundation are just a few examples of coordinating bodies that help raise resolutions and proxy votes for ESG/CSR issues (please see Appendix I for some studies that review the impact of shareholder activism). The evolution of CSR though, has not though been entirely a “push” phenomena, with companies themselves identifying the risks and opportunities of effectively managing and reporting environmental, social and governance factors. The confluence of these factors is illustrated in Figure 4 below.

Figure 4: CSR – a Push or Pull Phenomena?



Source: DBCCA analysis 2012

²⁴ “How to reinvent capitalism – and unleash a wave of innovation and growth”, Porter, M. & Kramer, M., *Harvard Business Review*, Jan-Feb 2011

The Evolution of Sustainable Investing

Key Terminology and Concepts

First identified in the 1950s, CSR emerged as a concept by which companies *should* act in order to fulfill their duty to society. As time has passed, CSR (like SRI) has expanded beyond a pure focus on philanthropy or values, and become more focused on the potential risk mitigation and/or enhanced returns from good corporate citizenship and transparent reporting – as well as the importance of a comprehensive CSR strategy to reputation and brand. The following describes the evolution of contemporary CSR by decade – although it should be noted that as with SI, this is a field with multiple terms and acronyms that are variously used and defined. As Green and Pelozo stated in 2011: “CSR has historically been defined by wide, yet vague, boundaries, with even researchers resorting to at least 39 unique metrics to measure CSR in empirical studies.”²⁵

Evolution of Key CSR Concepts: Shareholder Activism, Corporate Social and Financial Performance, and Corporate Citizenship

- (a) **1950s:** Deemed the “Father of CSR”, Howard Bowen in his 1953 book “Social Responsibilities of the Businessman”²⁶ first coined the phrase CSR and defined these responsibilities as: “the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society.”
- (b) **1960s:** Equating social responsibilities with social power, Davis (1960)²⁷ asserted that social responsibility can also bring long-run economic gain to a firm. In the same year, Frederick argued that corporate resources must be used for broad social ends. In 1967, Walton²⁸ added that the essential ingredient of CSR is volunteerism. Clearly, early-CSR (like early SRI) was focused on corporate philanthropy and community relations. However, at the same time as early-CSR was emerging, its broader or philanthropic application was being disputed by Nobel laureate Milton Friedman, who believed that maximizing shareholder value (i.e. profitability) is the *only* business objective: “there is one and only social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game.”²⁹
- (c) **1970s:** Despite this opposition from Friedman and his followers, Johnson (1971) helped CSR evolve further by acknowledging its contribution to long-run profit maximization as well as its role in “utility maximization,” whereby multiple goals beyond profit maximization are achieved by a firm. Moreover, the Committee for Economic Development (CED) proposed in 1971 that firms must serve the needs of society in order to maintain their license to operate. In the early 1970s CSR as a term moved came into common use, particularly as many multinational corporations were being formed. Hand-in-hand with this concept came the term “stakeholder”, whereby a corporation had multiple individuals or organizations beyond just shareholders (for example, communities, customers and regulators) with an interest in its actions and impacts.
- (d) **1980s:** The idea of corporate owners beyond shareholders was further solidified in the mid-1980s by R. Edward Freeman’s influential book “Strategic Management: A Stakeholder Approach”. This initiated a field of research on “stakeholder theory”, whose proponents question the traditional view of a stakeholder as being only those who legally own stock in a firm, and argues that there are other parties with a corporate interest – for example, government bodies, trade unions, associated corporations and the general public – and who therefore warrant consideration by corporations. This idea created two shifts that went hand-in-hand: (i) a push by stakeholders for greater transparency with regard to company’s performance beyond pure financial measures; and (ii) greater disclosure by company’s of their extra-financial activities – in the form of CSR reporting. Stakeholders (including shareholders) thereby adopted a more active role in “policing” corporate behavior. Both leading and documenting these shifts, academics during the 1980s further augmented CSR theory by advances in empirical research into social responsiveness, corporate social performance

²⁵ As cited in “Corporate Social Responsibility: Evolution of a Definitional Construct”, Carroll, *Business and Society*, 1999

²⁶ Ibid

²⁷ Ibid

²⁸ Ibid

²⁹ As cited in “Drivers of Long-Term Business Value: Stakeholders, stats and strategy”, Koehler & Henspenide, *Deloitte*, 2012

The Evolution of Sustainable Investing

Key Terminology and Concepts

(CSP), public policy, business ethics, and stakeholder theory and management. Around this time CSP and corporate financial performance (CFP) also emerged as defined concepts – particularly in the academic literature – around which to discuss the implications of CSR on corporate performance. This was particularly useful for investors examining the relationship(s) between CSR and a company's financial performance in order to determine the potential economic value-add in SRI investing. Academics began analyzing the performance of both funds and securities active in this type of investing (for a full discussion of this please see Sections II, III and IV of this paper), although these analyses were still very preliminary during this time period as this was a new, niche sector and there was a shortage of meaningful historical data.

- (e) **1990s:** Stakeholder activism, proxy voting and corporate disclosure on CSR issues all developed further during the 1990s, as corporations and stakeholders began to increasingly recognize the potential value associated with the extra-financial performance (or CSP) of a company. Sustainability, as it applied to both civil society and also to corporations, became an increasingly discussed topic and many investors began analyzing potential investments through the lens of a company's operations and profitability "sustainability" over the medium to long term. As previously mentioned the phrase "Triple Bottom Line" emerged in 1998 (coined by John Elkington in his famous book "Cannibals with Forks: the Triple Bottom Line of 21st Century Business") to capture the notion that ecological, social and economic criteria must be met before organizational success can be achieved. Meanwhile, business leaders were also engaging in this topic – the Caux Round Table (CRT), for example, launched its CRT Principles for Business in 1994, following a series of dialogues during the late 1980's and early 1990's among "an international network of principled business leaders working to promote a moral capitalism". These Principles articulate a comprehensive set of ethical norms for businesses operating internationally or across multiple cultures, with a goal of embodying the aspiration of principled business leadership. Within academia this decade also saw further research on the link between CSP and CFP, stakeholder theory, as well as newer concepts such as business ethics theory and corporate citizenship.

Contemporary CSR: By the turn of the century, the criteria of CSR – now referred to here as **contemporary CSR – expanded to formally encompass ESG, corporate citizenship and economic responsibility.** According to Mercer, contemporary CSR policies and procedures include "corporate governance, employee relationships, customer relationships, environmental management, philanthropy and community involvement." Despite intensifying regulations, much of corporate activity in CSR remains voluntary and goes beyond what is legally required by a firm. Nonetheless, some companies are now producing integrated Annual Reports that include financials with evaluations of E, S and G performance. Much of this shift is driven by a desire to reflect and communicate the way business is managed and establish a common dialogue across all different stakeholders. However, it can also have the effect of attracting investors who incorporate ESG factors into their evaluations of companies, as well as a desire to offer greater transparency, particularly if a company is making particular efforts in improving its ESG performance. Indeed, in a recent study conducted by MIT Sloan Management Review, **two-thirds of companies view sustainability as a necessary component to being competitive in today's marketplace, and a third believe that their sustainability activities and initiatives are contributing to their corporation's profitability³⁰. It is only sensible therefore that a growing number of companies are both measuring and reporting on their ESG performance.**

It would be remiss, however, to ignore the fact that there continues to be debate regarding the business objectives of firms, with some continuing to reference Friedman's arguments for shareholder interests above all else and to challenge the stakeholder-centric (i.e. social responsibility) view of the corporation. Michael Jensen takes a different perspective, arguing for a focus on *long-term performance*, which he argues then resolves the dispute between these differing (stakeholder vs. shareholder -centric) schools of thought: "it is obvious that we cannot maximize the long-term market values of an organization if we ignore or mistreat any important constituency."³¹ In other words, that a business should get the most out of society's limited resources, while also returning greater value to society – in essence, a win-win situation! This idea of long-

³⁰ "Sustainability Nears a Tipping Point", MIT (SMR) Research Report, January 2012

³¹ As cited in "Drivers of Long-Term Business Value: Stakeholders, stats and strategy", Koehler & Henspenide, Deloitte, 2012

The Evolution of Sustainable Investing

Key Terminology and Concepts

term business objectives aligns well with the perspective of many investors who see value in sustainability, particularly if investing over the medium- to longer-term.

More recently as well, **Michael Porter and Mark Kramer have added to current thinking around aligning stakeholder and corporate perspectives, through development of a new concept known as Corporate Shared Value (CSV)** – first outlined in a 2006 Harvard Business Review article “Strategy and Society: The Link Between Competitive Advantage and Corporate Social Responsibility”. The reasoning behind CSV is that companies are currently trapped in a narrow and “outdated approach to value creation”, which focuses on “optimizing short-term financial performance in a bubble while missing the most important customer needs and ignoring the broader influences that determine their longer-term success.” Porter and Kramer argue that companies need to take back the lead through the principle of shared value, which “involves creating economic value in a way that *also* creates values for society by addressing its needs and challenges.” The key to this new approach is placing shared value at the center of what companies do (hand-in-hand with profits), as opposed to the periphery, thereby reconnecting company success with social progress. There already exist some corporate leaders in this approach, but the shift towards CSV is still very much in its genesis. As Porter and Kramer state: “realizing [CSV] will require leaders and managers to develop new skills and knowledge – such as a far deeper appreciation of societal needs, a greater understanding of the true bases of company productivity, and the ability to collaborate across profit/nonprofit boundaries.” And government must also play its part by learning “how to regulate in ways that enable shared value rather than work against it.”

Emergence of Integrated Reporting

The recent global financial crisis has demonstrated to investors that current financial and sustainability reporting frameworks do not provide enough relevant information to the public and that greater transparency between corporations and investors is needed³². In particular, there is a need to accurately and transparently report the challenges and interdependencies between a firm’s ESG information and financial performance. Integrated Reporting, or IR, is an evolutionary step forward that creates a more established link between financial and non-financial ESG information, and also represents a shift away from how corporations traditionally interpreted CSR and its reporting (with a focus on philanthropy and ethics) towards reporting of specific E, S and G metrics. In an integrated report financial information is combined with non-financial information in such a way that shows their quantified impact on each other using established guidelines, standards and key performance indicators, or KPI’s – which are unique to each firm.

Globally, there are numerous NGO’s that provide these standards and guidelines to corporations. Among these standard-setting organizations, there are three key leaders that investors should be familiar with: the Global Reporting Initiative (GRI), the International Integrated Reporting Council (IIRC), and the Sustainability Accounting Standards Board (SASB). GRI is arguably the most important global organization in this domain and is recognized by many to be the global standard in nonfinancial reporting. SASB, on the other hand is strictly US based, industry-specific and aims to disclose all material non-financial activity within the SEC’s 10-K form – the SASB guidelines are still under development at present. Finally, the IIRC, which is also currently being established; collaborates with leading global frameworks such as GRI to establish a set of globally accepted integrated reporting frameworks that will be beneficial for both investors and corporations. IIRC argues that there are numerous benefits for corporations that practice integrated reporting, which are briefly discussed below.³³

- **Reported information will be better aligned with investor needs.**
- **More accurate non-financial information will be available for data vendors.**
- **Higher levels of trust can be established with key stakeholders and shareholders.**
- **Better resource allocation decisions, including cost reductions for organizations.**

³² “One Report: Integrated Reporting for a Sustainability Strategy”, Eccles, R. & Krzus, M, *Wiley & Sons*, pp.24-25, 2010

³³ Extracted directly from “Discussion Paper: Towards Integrated Reporting: Communicating Value in the 21st Century”, *IIRC*, 2011. Link: http://theiirc.org/wp-content/uploads/2011/09/IR-Discussion-Paper-2011_spreads.pdf

The Evolution of Sustainable Investing

Key Terminology and Concepts

- **Enhanced risk management.**
- **Better identification of opportunities for improvement in organizational activity.**
- **Lower reputational risk.**
- **Lower cost of, and better access to capital because of improved disclosure to stake/shareholders.**
- **Development of a common language and greater collaboration across different functions within organizations.**

We believe that understanding global reporting frameworks allows us to have greater transparency in market interest and activity. Recent research by Eccles, Krzus, and Serafeim (2011)³⁴ reveals a large market interest in non-financial information. The authors document that the aggregate market level, there is greater interest in environmental and governance information than in “social” information. U.S. investors are more interested than their European counterparts in governance and less interested in environmental information. Equity investors are interested in a wider range of nonfinancial information than are fixed income investors. And whereas sell-side analysts are primarily interested in greenhouse gas emissions, money managers tend to focus on a broader set of metrics. Similarly, pension funds and hedge funds have shown interest in more nonfinancial metrics than insurance companies. Moreover, according to a recent organizational survey from Institut RSE, the five important topics for inclusion in GRI’s newly developing G4 guidelines (which can include financial and non-financial information) are all ESG-related.³⁵

- **Business Ethics**
- **Greenhouse Gas Emissions**
- **Eco-innovation**
- **Life Cycle Assessment (LCA)**
- **Water**

The aforementioned analysis not only displays what is important within the G4 guidelines, they also reflect which non-financial categories the market views as important for disclosure within a firm’s annual report. The significance of measuring and quantifying ESG impact data was shown in 2009, when Microsoft, Cisco and Oracle were removed from the NASDAQ Global Sustainability Index, because they failed to disclose 2 out of 5 quantitative environmental metrics that adhered to GRI’s guidelines³⁶.

Clearly, development of the financial market’s interest in integrated reporting is vital to the future growth and development of this practice. However, since ESG disclosure is still voluntary and only loosely validated by many market players, the data can be inconsistent and incomparable across companies. Mainstream organizations such as SASB and IIRC will take time to develop robust industry-wide national and/or global standards – and it will take more time for these standards to be put into practice. However, the biggest challenge in integrated reporting relates to a concept known as “materiality.” Materiality refers to the degree to which financial results are impacted by climate change; the environment, health and safety; water usage; and related risks and opportunities, which are not relevant to all firms across all sectors. Therefore, it is extremely difficult to establish a set of reporting standards that are globally accepted. However, there are several organizations working on this issue at present and integrated measurement of ESG factors and their financial impacts and their reporting is expected to gain growing traction as the materiality of ESG factors becomes increasingly evident.

³⁴ “Market Interest in Nonfinancial Information”, Eccles, Serafeim & Krzus, *Journal of Applied Corporate Finance*, 23: 113–127, 2011

³⁵ “RSE Survey – Giving Value to Extra-Financial Information: How to bridge the gap between issuers and users of CSR data in growing complexity”, *Institut RSE, IRSE/ Les études de veille n° 4/*, 2012

³⁶ “From Transparency to Performance. Industry-Based Sustainability Reporting on Key Issues”, Lydenberg S. Rogers, J. Wood, D, *The Hauser Center for Nonprofit Organizations at Harvard University*, 2010

Disclaimer

DB Climate Change Advisors is the brand name for the institutional climate change investment division of Deutsche Asset Management, the asset management arm of Deutsche Bank AG. In the US, Deutsche Asset Management relates to the asset management activities of Deutsche Bank Trust Company Americas, Deutsche Investment Management Americas Inc. and DWS Trust Company; in Canada, Deutsche Asset Management Canada Limited (Deutsche Asset Management Canada Limited is a wholly owned subsidiary of Deutsche Investment Management Americas Inc); in Germany and Luxembourg: DWS Investment GmbH, DWS Investment S.A., DWS Finanz-Service GmbH, Deutsche Asset Management Investmentgesellschaft mbH, and Deutsche Asset Management International GmbH; in Denmark, Finland, Iceland, Norway and Sweden, Deutsche Asset Management International GmbH; in Australia, Deutsche Asset Management (Australia) Limited (ABN 63 116 232 154); in Hong Kong, Deutsche Asset Management (Hong Kong) Limited; in Japan, Deutsche Asset Management Limited (Japan); in Singapore, Deutsche Asset Management (Asia) Limited (Company Reg. No. 198701485N) and in the United Kingdom, Deutsche Alternative Asset Management (UK) Limited (formerly known as RREEF Limited), Deutsche Alternative Asset Management (Global) Limited (formerly known as RREEF Global Advisers Limited), and Deutsche Asset Management (UK) Limited; in addition to other regional entities in the Deutsche Bank Group.

This material is intended for informational purposes only and it is not intended that it be relied on to make any investment decision. It does not constitute investment advice or a recommendation or an offer or solicitation and is not the basis for any contract to purchase or sell any security or other instrument, or for Deutsche Bank AG and its affiliates to enter into or arrange any type of transaction as a consequence of any information contained herein. Neither Deutsche Bank AG nor any of its affiliates, gives any warranty as to the accuracy, reliability or completeness of information which is contained in this document. Except insofar as liability under any statute cannot be excluded, no member of the Deutsche Bank Group, the Issuer or any officer, employee or associate of them accepts any liability (whether arising in contract, in tort or negligence or otherwise) for any error or omission in this document or for any resulting loss or damage whether direct, indirect, consequential or otherwise suffered by the recipient of this document or any other person.

The views expressed in this document constitute Deutsche Bank AG or its affiliates' judgment at the time of issue and are subject to change. This document is only for professional investors. This document was prepared without regard to the specific objectives, financial situation or needs of any particular person who may receive it. The value of shares/units and their derived income may fall as well as rise. Past performance or any prediction or forecast is not indicative of future results. No further distribution is allowed without prior written consent of the Issuer.

The forecasts provided are based upon our opinion of the market as at this date and are subject to change, dependent on future changes in the market. Any prediction, projection or forecast on the economy, stock market, bond market or the economic trends of the markets is not necessarily indicative of the future or likely performance.

For Investors in the United Kingdom

Issued in the United Kingdom by Deutsche Asset Management (UK) Limited of One Appold Street, London, EC2A 2UU. Authorised and regulated by the Financial Services Authority. This document is a "non-retail communication" within the meaning of the FSA's Rules and is directed only at persons satisfying the FSA's client categorisation criteria for an eligible counterparty or a professional client. This document is not intended for and should not be relied upon by a retail client.

When making an investment decision, potential investors should rely solely on the final documentation relating to the investment or service and not the information contained herein. The investments or services mentioned herein may not be appropriate for all investors and before entering into any transaction you should take steps to ensure that you fully understand the transaction and have made an independent assessment of the appropriateness of the transaction in the light of your own objectives and circumstances, including the possible risks and benefits of entering into such transaction. You should also consider seeking advice from your own advisers in making this assessment. If you decide to enter into a transaction with us you do so in reliance on your own judgment.

For Investors in Australia

In Australia, Issued by Deutsche Asset Management (Australia) Limited (ABN 63 116 232 154), holder of an Australian Financial Services License. This information is only available to persons who are professional, sophisticated, or wholesale investors under the Corporations Act. An investment with Deutsche Asset Management is not a deposit with or any other type of liability of Deutsche Bank AG ARBN 064 165 162, Deutsche Asset Management (Australia) Limited or any other member of the Deutsche Bank AG Group. The capital value of and performance of an investment with Deutsche Asset Management is not guaranteed by Deutsche Bank AG, Deutsche Asset Management (Australia) Limited or any other member of the Deutsche Bank Group. Deutsche Asset Management (Australia) Limited is not an Authorised Deposit taking institution under the Banking Act 1959 nor regulated by the Australian Prudential Authority. Investments are subject to investment risk, including possible delays in repayment and loss of income and principal invested.

For Investors in Hong Kong

Interests in the funds may not be offered or sold in Hong Kong or other jurisdictions, by means of an advertisement, invitation or any other document, other than to Professional Investors or in circumstances that do not constitute an offering to the public. This document is therefore for the use of Professional Investors only and as such, is not approved under the Securities and Futures Ordinance (SFO) or the Companies Ordinance and shall not be distributed to non-Professional Investors in Hong Kong or to anyone in any other jurisdiction in which such distribution is not authorised. For the purposes of this statement, a Professional investor is defined under the SFO.

For Investors in MENA region

This information has been provided to you by Deutsche Bank AG Dubai (DIFC) branch, an Authorised Firm regulated by the Dubai Financial Services Authority. It is solely directed at Market Counterparties or Professional Clients of Deutsche Bank AG Dubai (DIFC) branch, which meets the regulatory criteria as established by the Dubai Financial Services Authority and may not be delivered to or acted upon by any other person.

I-027900-2.1

Copyright © 2012 Deutsche Bank AG, Frankfurt am Main