



## Table of contents

Introduction	3
Index comparisons	4
Mutual fund comparisons	7
Comparing performance of high-ranked socially responsible companies vs. low-ranked socially responsible companies	12
Corporate social performance	13
Challenges	15
Summary and conclusion	16

### Does socially responsible investing hurt investment returns?

At RBC Global Asset Management (RBC GAM), we monitor a broad range of financial trends and issues that may influence our clients' decision-making. This article, an update of a 2012 research paper, demonstrates that studies have broadly concluded that socially responsible investing does not burt returns.

### **Introduction**

Socially responsible investing (SRI) has been practiced for more than a century. Almost from the beginning, practitioners, academics and the investing public have asked if the inclusion of social and environmental considerations in the investment decision-making process hurts investment returns.

The growing body of research aiming to answer this question has been a central influence on the growth of SRI. If it is the case that SRI produces lower investment returns, then SRI will be a strategy used by investors with strong convictions about the types of companies they want to hold and who are prepared to accept less material wealth in order to satisfy these concerns. If, however, it can be shown that SRI produces superior investment results, then SRI should continue to move into the mainstream. Traditional investment managers will increasingly integrate SRI principles into their investment process in order to boost returns. Finally, if research shows that there is no material difference between the investment performance of SRI funds and traditional investment funds, then investors will have the freedom to invest using an SRI strategy, holding companies accountable for their environmental, social and governance (ESG) practices without sacrificing financial return.

Opponents of SRI argue that the application of non-financial considerations, such as ESG factors, to the investment process must result in lower investment returns because the number of investment opportunities is reduced. Relying on Modern Portfolio Theory, this position, in simplistic terms, states that investment portfolios constructed from an investment universe of 2,000 companies will be more efficient (i.e., they will have higher expected returns and/or lower expected volatility) than portfolios constructed from an investment universe of 1,000 companies. In other words, SRI works with a smaller universe and therefore will generate lower expected risk-adjusted returns.<sup>1</sup>

Supporters of SRI readily admit that the application of ESG considerations will reduce investment opportunities – after

### **RESPONSIBLE INVESTMENT (RI)**

"RI" is a collective term used to describe the broad range of approaches that can be used to incorporate environmental, social and governance (ESG) considerations into the investment process.

### **ENVIRONMENTAL, SOCIAL, GOVERNANCE (ESG)**

"ESG" refers to Environmental, Social and Governance factors relevant to an investment which may have a financial impact on that investment.

### SOCIALLY RESPONSIBLE INVESTING (SRI)

"SRI" refers to Socially Responsible Investing which uses ESG factors to exclude companies from the investment universe.

all, the raison d'être of SRI is to exclude "irresponsible" companies from consideration. But they argue that ESG integration into the investment process delivers meaningful benefits. This school of thought, known as the Stakeholder Theory, 2 suggests a company's practices will significantly impact future profitability. Thus, screening out companies because they are engaged in unsustainable activities or practices will eliminate those that are expected to underperform their competitors and result in a smaller but superior investment universe. Therefore, SRI proponents argue that any loss of portfolio efficiency is more than offset by the more attractive investment characteristics of the remaining companies.

A third view suggests that under normal circumstances there should be no meaningful difference between long-term performance of a broad universe of SRI funds and a broad universe of traditional investments funds that are managed with comparable mandates.<sup>3</sup> This view is based on three premises:

<sup>1</sup>Graziadio Business Review, The Moral and Financial Conflict of Socially Responsible Investing, Volume 10, Issue 1, 2007. By Darrol J. Stanley, DBA and Christopher R. Herb. See <a href="https://gbr.pepperdine.edu/2010/08/the-moral-and-financial-conflict-of-socially-responsible-investing/">https://gbr.pepperdine.edu/2010/08/the-moral-and-financial-conflict-of-socially-responsible-investing/</a>

<sup>3</sup>Exploration of the Cross-Sectional Return Distributions of Socially Responsible Investment Funds, 2014. By Du et al. See <a href="https://www.envestnet.com/files/Campaigns/">https://www.envestnet.com/files/Campaigns/</a>
PMC-SRI-TrustedAdvisor/images/SRI journalArticle elsevier v20140731.pdf

- 1. Applying ESG screens in the investment process, provided that a best-of-sector approach is employed, reduces the investment universe on a random basis (see sidebar below).
- 2. The number of securities eliminated through the application of ESG screens is not large.
- 3. The smaller investment universe does not produce a material loss of efficiency in portfolios constructed from that universe.

### **BEST-OF-SECTOR ESG**

Rather than exclude all companies in a sector that is considered "bad," such as mining, the "best-of-sector" approach selects companies based on good overall or specific ESG practices compared to other companies in its peer group.

Proponents of this view have divorced themselves from the ideologically laden debates about whether SRI funds should perform better or worse than traditional investment funds. Instead, they believe that there should be no expected difference in performance and that the merits of SRI rest entirely with the wishes of individual investors. According to this view, SRI does not involve a choice between following one's conscience and following one's pocketbook; instead, it is a legitimate investment approach that can be expected to provide investment performance on par with investment funds that do not formally apply SRI principles.

At the end of the day, the question of how SRI portfolios perform relative to traditional investment portfolios is an empirical one. Predominant research into this question continues to be approached in four ways:

- Index comparison: comparing the performance of SRI indices with traditional indices
- Mutual fund comparison: comparing the performance of SRI funds with traditional investment funds and/or market indices
- Hypothetical Portfolios: comparing hypothetical portfolios of companies ranked highly against ESG factors with the performance of lower-ranked companies
- Company performance: comparing the financial performance of companies that score highly on measures of corporate social performance with those that do not.

The remainder of this report provides an overview of the key findings of the empirical research conducted in each of these areas. The main finding from this updated body of work remains that socially responsible investing does not result in lower investment returns.

### Index comparisons

An index is a universe of securities constructed to represent a particular market or asset class. Examples include the S&P/TSX Composite Index, a grouping of about 250 companies representing the Canadian stock market, and the S&P 500 Index, a grouping of 500 companies representing the U.S. stock market. While construction rules differ among indices, two important features of the most prominent indices are that:

- 1. Larger capitalization securities have a higher weight in the index than smaller capitalization securities.
- 2. The composition of the index is adjusted regularly, either based on the decisions of an oversight committee and/or through a rules-based formulation.

"The main finding from this updated body of work remains that socially responsible investing does not result in lower investment returns."

While stock market indices serve many purposes, one of the most important is to permit investment managers to compare their performance with that of the overall market. In the past several decades, there has been a significant increase in the number of indices available to investors, including those with a focus on SRI.

The Domini 400 Social Index (now the MSCI KLD 400 Social Index) was created in May 1990. It was the first index to measure the performance of a broad universe of socially responsible stocks in the United States. Since then, a number of other SRI indices have been created, including:

- Calvert International Responsible Index (2011)
- Calvert US Large-Cap Core Responsible Index (2003)
- DJSI Emerging Markets Index (2013)
- DJSI North America Composite Index (1998)
- DJSI World Index (1999)
- FTSE4Good Index (2001)
- FTSE/JSE Responsible Investment Top 30 Index (2015)
- Jantzi Social Index (2000)
- MSCI KLD 400 Social Index (1990)
- MSCI ACWI SRI Index (2011)
- MSCI Emerging Markets SRI Index (2011)

- MSCI World SRI Index (2007)
- S&P 500 Environmental & Socially Responsible Index (2015)
- STOXX® Global ESG Leaders (2011)
- Thomson Reuters IX Global ESG High Dividend Low Volatility Equal Weighted Index (2004)

One method to determine if SRI results in lower investment returns is to compare the performance of an SRI index with a comparable traditional index. This comparison is shown in the charts below for the United States and Canada, as well as globally. In all cases, the SRI index has offered similar performance to its comparable traditional index.

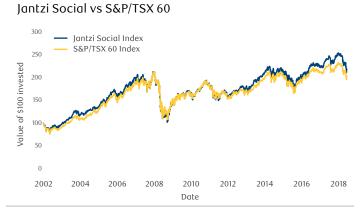
Figure 1: U.S. index comparisons

MSCI KLD 400 Social vs S&P 500



Source: Bloomberg (2019)

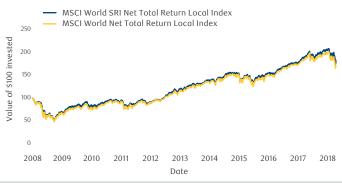
Figure 2: Canadian index comparisons



Source: Bloomberg (2019)

Figure 3: Global index comparisons





Source: Bloomberg (2019)

Looking at SRI indices is advantageous as it eliminates the effects of such factors as transaction costs, timing and management skills that a similar study of SRI mutual funds would need to address. In addition, there is the advantage of comparing the SRI index to a traditional index that is well-known by institutional and retail investors.<sup>4</sup>

However, a simple comparison of the performance of an SRI index with a comparable traditional investment index, while intuitively appealing, is not sufficient to determine if SRI performs better, the same, or worse than traditional investing. Differences in index construction, ESG evaluation processes, 5 style, industry, size biases or growth biases 6 could have material impacts on performance during the comparison period.

Recent work has applied various models, industry factors and frameworks, and compared crisis and non-crisis periods to attempt to identify and address these known biases. The result of this research was that, generally, biases exist, alphas were not statistically significant and that there was little difference between the performance of SRI indices and their traditional counterparts. While imperfect, index comparison can still be used as a valid measure to determine the performance of an SRI strategy compared to traditional strategy.

Nuveen-TIAA Investments' 2017 study compared the returns of five U.S. equity SRI indices (with track records of more

<sup>&</sup>lt;sup>4</sup>Fama-French Models Application to the analysis of FTSE4GOOD, MSCI ESG and STOXX ESG Indices: Do SRI Indices have biases? University do Porto, 2017. Pedro Gil Gonçalves Lima. See <a href="https://repositorio-aberto.up.pt/bitstream/10216/108203/2/224407.pdf">https://repositorio-aberto.up.pt/bitstream/10216/108203/2/224407.pdf</a>

<sup>&</sup>lt;sup>5</sup>Responsible Investing: Delivering competitive performance, Nuveen-TIAA Investments, 2017. By Amy O'Brien, Lei Liao, Jim Campagna. See <a href="https://www.tiaa.org/public/pdf/ri\_delivering\_competitive\_performance.pdf">https://www.tiaa.org/public/pdf/ri\_delivering\_competitive\_performance.pdf</a>

Fama-French Models Application to the analysis of FTSE4GOOD, MSCI ESG and STOXX ESG Indices: Do SRI Indices have biases? University do Porto, 2017. By Pedro Gil Gonçalves Lima. See <a href="https://repositorio-aberto.up.pt/bitstream/10216/108203/2/224407.pdf">https://repositorio-aberto.up.pt/bitstream/10216/108203/2/224407.pdf</a>

<sup>\*</sup>Responsible Investing: Delivering competitive performance, Nuveen-TIAA Investments, 2017. By Amy O'Brien, Lei Liao, Jim Campagna. See <a href="https://www.tiaa.org/public/pdf/ri\_delivering\_competitive\_performance.pdf">https://www.tiaa.org/public/pdf/ri\_delivering\_competitive\_performance.pdf</a>

than 10 years) to the returns of the Russell 3000 Index and the S&P 500 Index. The SRI indices selected were the Calvert U.S. Large Cap Core Responsible Index, Dow Jones Sustainability U.S. Index, FTSE4Good US Index, MSCI KLD 400 Social Index and MSCI USA IMI ESG Leaders Index. The analysis found no significant difference in returns, and any return variations appeared to be random and not systematic.<sup>9</sup>

A number of other studies have shown that the MSCI KLD 400 Social Index has outperformed the S&P 500 Index. Morgan Stanley's 2015 study found that the MSCI KLD 400 Social Index achieved an annualized return of 10.14% compared to 9.69% for S&P 500 Index from July 1990 to December 2014. Although this difference might appear insignificant, it adds up to a cumulative excess return of 102.36% between 1990 and 2014.

The study also found that the MSCI KLD 400 Social Index performed similarly to its traditional counterpart, the MSCI USA Index. Morningstar's 2016 study also found that since the MSCI KLD 400 Index's inception it has outperformed the S&P 500 Index (from April 1990 to September 2016). Another study from 2016 by Statman and Glushkov compared the KLD 400 Index and the Calvert Social Index with the S&P 500 Index from 1991 to 2012, applying four-factor and six-factor models. The findings of this study also revealed no statistically significant difference in performance.

Finally, the Responsible Investment Association of Canada compared the returns of the Jantzi Social Index with the S&P/TSX Composite Index and the S&P/TSX 60 Index from inception to present day (January 2000 to May 2018). The Association also compared the returns of the MSCI World SRI Index with the MSCI World Index from inception to present day (September 2007 to May 2018). Both comparisons found that the SRI indices outperformed their traditional counterparts.<sup>13</sup>

The Journal of Business Ethics (2017) published a study that takes the index comparison analysis one step further. The authors analyzed a number of other studies that sought to address the question of whether there are significant differences in performance between SRI indices and

traditional indices. Their conclusion: any differences were insignificant. Further research by the authors sought to address the concern of investors that SRI works with a smaller universe, lacks diversification and ultimately results in less opportunity to reduce risk. The authors analyzed the returns and volatility of the Dow Jones Sustainability Indices of North America, Europe and Asia-Pacific. They determined that a portfolio composed of the Dow Jones Sustainability Index North America and the Dow Jones Sustainability Index Asia-Pacific provided better results with respect to a risk-return trade-off than a simple strategy based on SRI screens or even traditional indices.<sup>14</sup>

Research comparing equity SRI and non-SRI indices is plentiful and has demonstrated that equity SRI indices do not underperform traditional indices. Other asset classes are less widely represented in index comparison research. But research does exist. In 2016, Barclays published a report to determine the impact of SRI on corporate bond performance. 15 Barclays has a range of SRI indices, notably:

- The Socially Responsible (SRI) Corporate Bond Index, which employs negative screening – excluding companies in the tobacco, alcohol, gambling, adult entertainment, nuclear power, genetically modified organisms, stem cell research, firearms, and weapon systems industries
- The Sustainability Index, which employs positive screening considered a best-in-class approach based on ESG ratings.

The historical returns were compared to the Bloomberg Barclays US Corporate IG Index. Initially the results showed that both SRI indices underperformed the selected benchmark index. However, some of the underperformance was linked to systematic biases that were unrelated to ESG criteria. After these biases were corrected, the research found a positive link between returns and the positive screen employed for the Sustainability Index. Additionally, hypothetical portfolios were created using positive ESG screens (varying in intensity). Overall, the findings were that a positive ESG screen applied to an investment-grade credit portfolio does not result in lower returns and can actually enhance returns.<sup>16</sup>

<sup>9</sup>ibid

<sup>&</sup>lt;sup>10</sup>Sustainable Reality: Understanding the Performance of Sustainable Investment Strategies, Institute for Sustainable Investing, Morgan Stanley, 2015. See <a href="https://www.morganstanley.com/ideas/sustainable-investing-performance-potential">https://www.morganstanley.com/ideas/sustainable-investing-performance-potential</a>

<sup>&</sup>quot;Sustainable Investing Research Suggests No Performance Penalty, Morningstar, 2016. By John Hale. See <a href="http://video.morningstar.com/ca/170717\_SustainableInvesting.pdf">http://video.morningstar.com/ca/170717\_SustainableInvesting.pdf</a>

<sup>&</sup>lt;sup>12</sup>Classifying and Measuring the Performance of Socially Responsible Mutual Funds, Journal of Portfolio Management, Winter 2016. By Meir Statman and Denys Glushkov. See <a href="http://www.hillsdaleinv.com/portal/uploads/Classifying">http://www.hillsdaleinv.com/portal/uploads/Classifying</a> and Measuring the Performance of Socially Responsible Mutual Funds.pdf

<sup>&</sup>lt;sup>13</sup>Busting the RI Performance Myth, Responsible Investment Association, 2018 of Canada. By Dustyn Lanz. See <a href="https://www.investmentexecutive.com/inside-track/dustyn-lanz/busting-the-ri-performance-myth/">https://www.investmentexecutive.com/inside-track/dustyn-lanz/busting-the-ri-performance-myth/</a>

<sup>&</sup>lt;sup>14</sup>Improving Diversification Opportunities for Socially Responsible Investors, Journal of Business Ethics, Volume 140, Issue 2, 2017. By María del Mar Miralles-Quirós and José Luis Miralles-Quirós. See <a href="https://link.springer.com/article/10.1007/s10551-015-2691-4">https://link.springer.com/article/10.1007/s10551-015-2691-4</a>

<sup>&</sup>lt;sup>15</sup>Sustainable investing and bond returns, Barclays Bank PLC, 2016. By Albert Desclée, Lev Dynkin, Jay Hyman and Simon Polbennikov. See <a href="https://www.investmentbank.barclays.com/content/dam/barclaysmicrosites/ibpublic/documents/our-insights/esg/barclays-sustainable-investing-and-bond-returns-3.6mb.pdf">https://www.investmentbank.barclays.com/content/dam/barclaysmicrosites/ibpublic/documents/our-insights/esg/barclays-sustainable-investing-and-bond-returns-3.6mb.pdf</a>
<sup>16</sup>ibid

These findings are in line with the previously conducted research, suggesting that based on broad SRI benchmarks, it is possible to pursue an SRI strategy without sacrificing return.

### **Mutual fund comparisons**

A second body of work has attempted to determine if SRI results in lower investment returns by comparing the performance of SRI mutual funds with traditional mutual funds and/or traditional market indices. This research is difficult because studies have been limited to specific geographic regions and there is considerable variety amongst funds that are labeled SRI.<sup>17</sup> There has been significant growth in the number of assets under management that are being invested in SRI strategies.<sup>18</sup> As the shift of wealth to millennials and women begins (who have expressed a

preference for their investments to be aligned with their values),<sup>19</sup> the "SRI" label has been applied to funds in an attempt to attract socially-conscious investors without necessarily following true SRI principles.

There is also evidence that suggests that the constituents of SRI funds and traditional funds are becoming more similar as traditional funds have increasingly less exposure to "socially sensitive sectors" that are traditionally excluded from SRI funds. <sup>20</sup> An added challenge is constructing an appropriate control group of traditional mutual funds. Notwithstanding these methodological issues, several studies have been conducted. The key findings of a selection of these studies are reported in Figure 4.

Figure 4: Summary of SRI Fund Studies

Study	Country	Data	Time period	Key findings for SRI Funds
Amene, Sourd (2008)	France	62 SRI funds vs. traditional indices	January 2002 to December 2007	No significant performance difference
Areal, Cortez, Silva (2010)	United States	38 SRI funds vs. vice fund and S&P500 Index	October 1993 to September 2009	<ul><li>SRI funds performed better during a crisis</li><li>Evidence of both high and lower returns</li></ul>
Asmundson, Foerster (2001)	Canada	2 SRI funds vs. TSE 300 Index	January 1990 to December 1999	<ul><li>Evidence of both higher and lower returns</li><li>Lower risk</li></ul>
Auer, Schuhmacher (2015)	Asia-Pacific, United States & Europe	Considers research comparing performance of SRI funds and traditional funds (12 different studies analyzed)	1990 to 2013	No evidence of a performance disadvantage for SRI funds
Bauer, Koedijk, Otten (2002)	Germany, United Kingdom & United States	103 SRI funds and 4,384 traditional mutual funds	January 1990 to March 2001	<ul> <li>Evidence of both higher and lower returns</li> <li>Evidence of a learning effect (underperformance by younger funds and no difference in performance for older funds)</li> </ul>
Bauer, Guenster, Koedijk (2006)	Canada	8 ethical funds and 267 traditional mutual funds	January 1994 to January 2003	No significant performance difference
Bauer, Otten, Tourani Rad (2005)	Australia	25 ethical equity mutual funds and 281 traditional funds	November 1992 to April 2003	No significant performance difference

<sup>&</sup>lt;sup>17</sup>Do socially (ir)responsible investments pay? The Quarterly Review of Economics and Finance. Volume 59, 2016. By Benjamin R. Auer and FrankSchuhmacher. See <a href="https://www.sciencedirect.com/science/article/abs/pii/S1062976915000770">https://www.sciencedirect.com/science/article/abs/pii/S1062976915000770</a>

<sup>18</sup>SRI Funds - Expect Increase, Seeking Alpha, 2017. By Pierce Halsted. See https://seekingalpha.com/article/4093261-sri-funds-expect-increase

<sup>&</sup>lt;sup>19</sup>Sustainable Signals, Institute for Sustainable Investing, Morgan Stanley, 2015. See <a href="https://www.morganstanley.com/pub/content/dam/msdotcom/ideas/sustainable-signals/pdf/Sustainable-Signals-Whitepaper.pdf">https://www.morganstanley.com/pub/content/dam/msdotcom/ideas/sustainable-signals/pdf/Sustainable-Signals-Whitepaper.pdf</a>

<sup>&</sup>lt;sup>20</sup>Fama-French Models Application to the analysis of FTSE4GOOD, MSCI ESG and STOXX ESG Indices: Do SRI Indices have biases? University do Porto, 2017. By Pedro Gil Gonçalves Lima. See <a href="https://repositorio-aberto.up.pt/bitstream/10216/108203/2/224407.pdf">https://repositorio-aberto.up.pt/bitstream/10216/108203/2/224407.pdf</a>

Study	Country	Data	Time period	Key findings for SRI Funds
Becchetti, Ciciretti, Dalo, Herzel (2014)	Global, North America, Europe, Asia Pacific ex Japan & China	1,213 SRI funds and 21,860 traditional funds	January 1992 to April 2012	<ul> <li>No clear cut performance dominance of one investment style over the other</li> <li>SRI funds generally do better than traditional funds in the period following the global financial crisis</li> <li>No evidence that limited diversification negatively impacts performance of SRI funds</li> </ul>
Bello (2005)	United States	42 SRI funds and 84 traditional funds	January 1994 to March 2001	<ul> <li>Risk adjusted returns of SRI funds indistinguishable from returns of traditional funds</li> <li>Fund characteristics did not differ between the two groups</li> </ul>
Cortez, Silva, Areal (2009)	United States, Austria, Belgium, France, Germany, Italy, Netherlands & United Kingdom	39 European market mutual funds and 7 U.S. mutual funds vs. traditional and socially responsible indices	August 1996 to August 2008	<ul> <li>No evidence of significant performance differences for European funds</li> <li>Evidence of underperformance for U.S. and Austrian funds</li> </ul>
Derwall, Koedijk (2005)	United States	8 SRI bond funds	1987 to 2003	<ul> <li>SRI bond funds provided returns similar to or superior to traditional bond funds</li> <li>Found to perform similarly during an economic expansion and significantly outperform during an economic contraction</li> </ul>
Derwall, Koedijk (2008)	United States	15 SRI bond funds and 9 SRI balanced mutual funds vs. their traditional counterparts	1987 to 2003	<ul> <li>Higher returns</li> <li>No results statistically significant</li> <li>Expenses for SRI funds did not cause underperformance</li> </ul>
Du, Thomas, Zvingelis (2014)	International	9,840 traditional mutual funds and 231 SRI mutual funds	1980 to 2013	<ul> <li>No difference in cross-sectional average performance between SRI and non-SRI funds</li> <li>When study is expanded to include other quartiles beyond the average, there is a difference in performance</li> </ul>
Friede, Busch, Bassen (2015)	International	Aggregated empirical evidence from more than 2200 unique primary studies (238 of these studies on funds)	1997 to 2015	Investors in SRI mutual funds can expect to have comparable returns to traditional mutual funds
Geczy, Stambaugh, Levin (2003)	United States	35 no-load SRI funds and 859 no-load traditional mutual funds	July 1963 to December 2001	<ul><li>Lower returns</li><li>Difference is significant under certain conditions</li></ul>
Gil-Bazo, Ruiz- Verdu, Santos (2008)	United States	86 SRI mutual funds and 1,761 traditional funds	1997 to 2005	Higher risk adjusted performance before and after fees
Hale (2016)	International	25,000 observations of socially conscious funds vs. overall fund universe	2002 to September 2016	<ul><li>Similar risk-adjusted performance</li><li>Difference that exists is slight outperformance</li></ul>

Study	Country	Data	Time period	Key findings for SRI Funds
Hebb (2015)	Canada	47 SRI equity mutual funds, 10 SRI fixed income mutual funds and 12 SRI fixed income balanced mutual funds vs. their respective benchmarks	1, 3, 5 and 10 year data for the month ended March 31, 2015	<ul> <li>SRI equity funds outperform the benchmark 63% of the time, while reducing the portfolio risk</li> <li>SRI fixed income and balanced funds outperform the benchmark 67% of the time, with risk in line with other Canadian funds in these asset classes</li> </ul>
Hoepner, Nilsson (2015)	International	122 SRI fixed income funds	October 2000 to April 2013	<ul> <li>SRI funds displayed higher average return, lower risk, and higher reward to risk ratios than traditional funds</li> <li>SRI funds investing in a mix of corporate and government bonds perform significantly better than pure SRI corporate and government bond funds</li> </ul>
Kreander, Gray, Power, Sinclair (2005)	Europe	30 SRI funds matched with 30 similar non-SRI funds	January 1995 to December 2001	No difference in performance on a risk-adjusted basis
Leite, Cortez (2016)	France, Germany & United Kingdom	63 SRI fixed-income funds and 189 traditional funds	February 2002 to December 2014	<ul> <li>French SRI bond funds match performance</li> <li>German SRI bond funds slightly outperform</li> <li>UK SRI bond funds underperform</li> <li>During expansion periods, SRI bond funds from Euro-Area countries outperform, and during recessions they perform at least as well as traditional funds</li> </ul>
Lean, Ang, Smyth (2014)	North America & Europe	500 European SRI fund and 248 North American SRI funds vs. benchmark	January 2001 to December 2011	SRI funds outperform the market benchmark in Europe and North America
Liang (2012)	Canada	28 Canadian ethical funds vs. TSX Index	January 2008 to March 2012	<ul> <li>Ethical funds tend to underperform the market by 4%</li> <li>Canadian fixed income ethical funds outperform the market by 5%</li> </ul>
Lima (2017)	Global	80 empirical papers comparing the performance of socially responsible investments vs. traditional investments	1993 to 2016	<ul> <li>Most papers found that SRI funds perform similarly to traditional funds</li> <li>No evidence that SRI funds are less diversified than traditional investments</li> <li>No evidence that SRI fund managers have less timing skill compared to traditional fund managers</li> </ul>
Magnier, Luchet, Schaff (2008)	Europe, North America, Australia & Asia	171 SRI mutual funds compared to non-SRI indices and non-SRI funds	October 2006 to October 2008	<ul> <li>No significant performance differences</li> <li>Best-in-class funds that did not use exclusion criteria performed better than those that used exclusion criteria</li> </ul>
Matallín-Sáez, Soler-Domínguez, Tortosa-Ausina (2016)	Europe, United States & Canada	1,587 equity SRI funds	January 2000 to June 2013	Performance of SRI mutual funds is equivalent to traditional mutual funds

Study	Country	Data	Time period	Key findings for SRI Funds
Morgan Stanley Institute for Sustainable Investing (2015)	United States	118 equity funds and 31 fixed income funds employing a "socially conscious" active investment strategy vs. traditional peers in the same asset class	2007 to 2014	<ul> <li>64% of sustainable equity mutual funds had equal or higher median returns than traditional funds</li> <li>64% of sustainable equity mutual funds had equal or lower volatility than traditional funds</li> <li>SRI fixed income fund performance was similar to traditional fixed income fund performance</li> </ul>
Nakai, Yamaguchi, Takeuchi (2016)	Japan	62 Japanese SRI funds and 2,136 traditional funds	February 2008 to September 2008	SRI funds outperformed traditional funds during the global financial crisis
Nofsinger, Varma (2014)	United States	240 equity mutual funds in SRI category	January 2000 to December 2011	<ul> <li>SRI funds outperform traditional funds during periods of market crisis (outperformance is more pronounced in funds that employ positive screening)</li> <li>SRI funds underperform during non-crisis periods</li> </ul>
Rathner (2012)	International	25 studies comparing SRI funds to traditional funds	1981 to 2008	<ul> <li>75% of performance comparisons do not find any significant performance differences</li> <li>Significant outperformance and underperformance are found at the same rate</li> </ul>
Revelli, Viviani (2015)	International	85 studies and 190 experiments comparing SRI portfolios to traditional portfolios	1972 to 2012	No positive or negative effect
Scholtens (2005)	Netherlands	12 SRI funds compared to SRI and non-SRI indices	November 2001 to April 2003	<ul> <li>Slight outperformance of SRI funds vs. the index</li> <li>Slight underperformance of SRI funds vs. non-SRI funds</li> <li>Neither result was statistically significant</li> </ul>
Schroeder (2003)	Germany, United States & United Kingdom	30 US funds, 16 German and Swiss funds, and 10 SRI indices	Minimum of 30 months of data before 2002	No significant performance differences     Some SRI funds exhibited insignificantly higher returns
Sourd (2012)	France	87 SRI funds vs. cap-weighted and efficient benchmarks	January 2008 to December 2011	<ul> <li>Most results insignificant</li> <li>Significant values were negative</li> <li>Efficient benchmarks were beat less often</li> </ul>
Statman, Glushkov (2016)	United States	5,786 mutual funds, encompassing funds classified as either socially responsible or traditional	January 1992 to June 2012	No significant performance differences
Torres, Cerqueira, Brandao (2013)	Austria, Belgium, France, Germany, Luxembourg, Netherlands, Switzerland & United Kingdom	80 SRI funds vs. unscreened benchmark Indices and SRI benchmark Indices	January 2002 to December 2010	Investors can apply social screens to their investment choices without sacrificing their financial returns

Empirical evidence has historically been, and continues to be, mixed. One explanation for this could be that the screening methodology applied has an impact on performance. Some early studies have found that there is a curvilinear relationship between the number of screens used by a fund and the financial performance of the fund.<sup>21</sup> Essentially, as the number of screens increases, the returns of the fund initially decline and then begin to increase again.<sup>22</sup> When only a small number of screens are employed, fewer companies are eliminated from the portfolio and, consequently, performance will not be greatly impacted. As the number of screens increases, and more companies are eliminated from the portfolio, the portfolio is less diversified and performance suffers. However, once a certain number of screens are reached the companies that remain in the portfolio are of a higher quality and lower inherent risk and performance improves.23

A number of studies listed in Figure 4 would appear to support this explanation. Magnier et al. (2008) found that best-in-class funds that did not use exclusion criteria performed better than SRI funds that excluded industries. Cortez, Silva and Areal (2009) found that SRI mutual funds have shown superior performance in Europe as opposed to the United States. The authors explain that this difference in performance could be attributed to differences in SRI investment style. The European SRI approach generally used positive screening criteria while the American approach was more oriented towards negative screening or exclusions.

A **sin stock** refers to a company that is involved in business activities that are deemed to be unethical or immoral (e.g. alcohol, tobacco, gambling, pornography and weapons manufacturers).

Statman and Glushov (2016) published an important study that supports the idea that screening methodology can impact performance and also addresses a key issue in the comparison of SRI mutual funds and traditional mutual funds. The study produced its own classification system for mutual funds to address the following concerns:

 There is considerable variety between different SRI funds (e.g. screening out "sin" stocks, as compared to excluding fossil fuels, applying exclusionary screens based on "catholic values", or using positive screening only).

- Some funds that carry the SRI label might not be true SRI funds.
- Some traditional funds might have SRI fund qualities but aren't being included in empirical research because they don't label themselves as SRI funds.

The authors used top-bottom factor (TMB) beta and acceptedshun factor (AMS) beta to identify socially responsible mutual funds, regardless of whether they are labelled "SRI" funds. They found that:

- High TMB funds had higher alpha (0.55%) since high TMB beta implies that the fund managers favor the stocks of companies that rate high on social responsibility criteria (either implicitly or explicitly).
- High AMS funds had lower alpha (-0.36%) since high AMS beta implies that the fund managers exclude sin stocks (again, either implicitly or explicitly).

"These evolving studies imply further support for the explanation that the way the screen is applied has an impact on performance."

This finding means that SRI detracts from performance when investors exclude companies (negative screening), but that SRI improves performance when investors focus on companies with high ratings on ESG indicators (positive screening). Also, when both positive screening and negative screening are employed, their opposing effects result in no performance difference. Similarly, Morningstar's 2016 research suggests that SRI exclusions may negatively affect performance, but that positive screening improves performance. When funds employ both forms of screening, the negative and positive impacts offset to ultimately have no impact on performance. These evolving studies imply further support for the explanation that the way the screen is applied (number of screens, type of screen, intensity of screen, etc.) has an impact on performance.

This research seems to reconcile the current conflicting evidence and is intuitively appealing. However, more corroborating research would need to be performed before we could reach any definitive conclusions. Overall, the evidence to suggest that SRI funds systematically underperform traditional mutual funds is limited. And, while there is considerably more evidence to suggest that SRI funds outperform traditional funds, the results are not unanimous.

<sup>&</sup>lt;sup>21</sup>Beyond Dichotomy: The Curvilinear Relationship between Social Responsibility and Financial Performance, Strategic Management Journal, Vol. 27, No. 11, 2006. By Barnett and Salomon. See <a href="https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=885950">https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=885950</a>

<sup>&</sup>lt;sup>23</sup>The Performance of Socially Responsible Funds: Does the Screening Process Matter? Finance and Corporate Governance Conference 2011 Paper. By Blancard and Monjon. See <a href="https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1734764">https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1734764</a>

The rise of SRI exchange-traded funds (ETFs) is also worth noting. In the future, SRI ETFs may offer another method to compare the performance of SRI investments to traditional investments. However, few have been seeded for long enough to offer meaningful track records. Research comparing SRI ETFs to their traditional counterparts is nascent. Although little empirical research exists, the early evidence demonstrates there is little performance difference between the SRI ETFs and their non-screened original versions. <sup>24,25</sup>

# Comparing performance of high-ranked socially responsible companies vs. low-ranked socially responsible companies

A third area of SRI research has been focused on creating hypothetical portfolios of socially responsible companies (that are screened based on ESG factors) and comparing them to a non-screened portfolio. The creation of these hypothetical portfolios differs by study, but many use a variety of screens including:

- Best-in-class ESG score screens
- Screening based on international norms
- Traditional sin stock screens

Arabesque's study (2016) on the impact of screening on return, risk and diversification, constructed six different socially responsible portfolios. Four of these portfolios applied SRI screens by applying best-in-class ESG scores using:

- Sustainalytics data
- Compliance with the United Nations Global Compact (UNGC) – a voluntary initiative where CEO's commit to implement 10 sustainability principles and work to support UN goals (with a focus on human rights, labour, environment, and anti-corruption)
- ESG momentum (which means companies that are trying to improve their ESG practices can be included, even if initially excluded based on a poor ESG score relative to peers)

Risk-adjusted performance was measured over six years. The study found that:

 The global portfolios that applied a best-in-class ESG score screen of 10% or 25% outperformed the non-screened portfolios by 0.30% and 0.21% respectively. This screening excluded the bottom 10% or 25%, based on ESG scores relative to peers.

- The global developed market portfolio that applied a bestin-class ESG score screen of 10% outperformed the nonscreened portfolio by 0.15%.
- The global developed market portfolio that applied a bestin class ESG score screen of 25% underperformed the nonscreened portfolio by 0.01%.
- Overall, there was a correlation of 99.8% between the monthly returns of the unscreened global portfolios and the screened portfolios whether they applied a 10% or 25% screen.<sup>26</sup>

"Overall, the study found that in three out of four screened portfolios, the increase in risk compared to the non-screened portfolio was outweighed by the increase in alpha."

The study goes on to compare risk levels of the portfolios. It found that three out of four screened portfolios outperformed their non-screened counterparts on a risk-adjusted basis. The authors attribute the outperformance of both global screened portfolios to companies in Europe and North America and conclude that in other regions, ESG screens don't negatively impact performance. In addition, the study proposes that the only instance of underperformance for the screened portfolios could be attributed to the way in which the screen was applied.

Finally, the study evaluates the impact of screening on portfolio diversification. The evaluation of the effect of SRI screening on diversification is an important one, as many critics of SRI argue that screening leads to a loss of diversification, increased risk and ultimately, underperformance. Overall, the study found that in three out of four screened portfolios, the increase in risk compared to the non-screened portfolio was outweighed by the increase in alpha. Further study of one-year rolling diversification ratios found that, on average, SRI screening does not lead to loss of diversification.<sup>27</sup>

In addition, there is research that narrows this analysis to specific socially responsible criteria. A study by Statman and Glushkov (2008)<sup>28</sup> found that a portfolio of stocks with high ratings on a broad range of social responsibility

<sup>&</sup>lt;sup>24</sup>Top 10 Socially Responsible ETFs, ETF.com, 2017. By Sumit Roy. See <a href="https://www.justetf.com/uk/news/etf/an-introduction-to-social-responsibility-investing-with-etfs.html">https://www.justetf.com/uk/news/etf/an-introduction-to-social-responsibility-investing-with-etfs.html</a>
<sup>25</sup>An introduction to Social Responsibility Investing with ETFs, Just ETF, 2018. By Dominique Riedl. See <a href="https://www.justetf.com/uk/news/etf/an-introduction-to-social-responsibility-investing-with-etfs.html">https://www.justetf.com/uk/news/etf/an-introduction-to-social-responsibility-investing-with-etfs.html</a>

<sup>&</sup>lt;sup>26</sup>ESG for all? Arabesque Partners, 2016. See <a href="https://arabesque.com/2016/04/06/esg-for-all-the-impact-of-esg-screening-on-return-risk-and-diversification/">https://arabesque.com/2016/04/06/esg-for-all-the-impact-of-esg-screening-on-return-risk-and-diversification/</a>
<sup>27</sup>Ibid

<sup>&</sup>lt;sup>28</sup>The Wages of Social Responsibility, Financial Analysts Journal, Volume 65, Number 4, 2009. By Meir Statman and Denys Glushkov. See <a href="https://www.cfapubs.org/doi/pdf/10.2469/faj.v65.n4.5">https://www.cfapubs.org/doi/pdf/10.2469/faj.v65.n4.5</a>

characteristics outperformed those with low ratings. The factors that had the strongest correlation with performance were community, employee relations, and environment. A portfolio that excluded sin stocks had lower returns than a traditional portfolio. However, the outperformance of the portfolio with high ratings of social responsibility characteristics and the underperformance of the portfolio that excluded sin stocks offset each other, supporting the "no effect" hypothesis, which states that SRI portfolios produce comparable returns to traditional portfolios.

Another study by UBS (2018) created hypothetical portfolios of socially responsible companies using employee satisfaction as the key independent variable.<sup>29</sup> The study found that a portfolio of stocks with high levels of employee satisfaction outperformed the original portfolio and a portfolio of stocks with low levels of employee satisfaction underperformed.

While this area of research continues to provide interesting results, more empirical testing would enhance our understanding of the factors that drive firm performance and environmental and social risk. As always, results based on additional data sets and the performance of actual portfolios would be useful extensions to this line of research.

### Corporate social performance

The fourth approach to determine if SRI impacts investment returns has been to examine the financial performance of companies that score highly on one or more measures of good corporate social responsibility (CSR) versus those that do not. Proponents of SRI argue that companies embracing corporate social responsibility should deliver superior financial performance. Some of the benefits CSR is purported to deliver include:

- An improved ability to attract and retain better employees
- Competitive advantages in production technology designed to eliminate waste
- More productive workforces
- Higher sales and more loyal customers
- Lower litigation costs
- Lower environmental costs
- Enhanced brand value and reputation
- Better risk and crisis management
- Good relations with government, communities and other stakeholders

Opponents of SRI are skeptical that CSR confers meaningful benefits on companies. Or, even if such benefits can be shown to be present, they do not translate into better financial performance. At best, according to opponents, CSR is neutral: there are no financial advantages. Some opponents of SRI, however, would go a step further. They claim that companies pursuing CSR will actually perform worse because such efforts will distract management from their key focus: to maximize profits.

Needless to say, this question has been fertile ground for academic research. Many empirical studies have attempted to determine if a relationship exists between CSR and financial performance. This research can be divided into three main segments:

- Event studies which measure the impact of a major CSR event on the subsequent financial performance of a company. A CSR event can be positive (e.g., receiving an award for good environmental management) or negative (e.g., a pollution spill or product recall).
- 2. **Cross-sectional regression analysis** which examines the relationship between one or more CSR indicators and one or more measures of financial performance.
- 3. "Anecdotal" studies which use selective case studies to illustrate the benefits of CSR to companies. For the most part, these pieces have been sponsored or prepared by non-governmental organizations dedicated to promoting the wide-spread adoption of CSR and, consequently, are of limited empirical value.

Event studies have generally found that ESG controversies have a negative impact on performance. MSCl's 2017 research on whether ESG controversies have impacted performance<sup>30</sup> found that the impact on portfolios that excluded a small number of stocks facing the most severe controversies was slightly positive. However, when the excluded stocks included those facing controversies ranging from moderate to most severe, performance of the portfolio was negatively impacted. MSCl's research reveals that socially responsible investors who wish to apply a controversy screen to their

MSCI defines **ESG controversies** as "an incident or ongoing situation in which a company faces allegations of negatively impacting stakeholders via some type of wrong-doing."

<sup>&</sup>lt;sup>29</sup>How does deployed human capital relate to future returns? UBS Investment Research, 2018. By Oliver Antrobus et al.

<sup>&</sup>lt;sup>30</sup>MSCI, Have corporate controversies helped or hurt performance? 2017. By Zoltan Nagy, Linda-Eling Lee, Meggin Thwing Eastman. See <a href="https://www.msci.com/www/research-paper/have-corporate-controversies/0759434360?utm\_source=ESG&utm\_medium=email&utm\_campaign=esg\_irri\_survey\_10\_2017">https://www.msci.com/www/research-paper/have-corporate-controversies/0759434360?utm\_source=ESG&utm\_medium=email&utm\_campaign=esg\_irri\_survey\_10\_2017</a>

portfolio could do so "while retaining close to the full market opportunity set."<sup>31</sup>

Bank of America Merrill Lynch's 2018 study<sup>32</sup> (using Thomson Reuters and MSCI data) analyzed the ESG scores of 17 S&P 500 Index companies that have gone bankrupt since 2005. The study found that these companies showed significant deterioration in their ESG scores during the five years preceding their bankruptcy. The research showed that if an investor had only held stocks with above average ESG ratings over the period of the study, they would have avoided 15 of 17 bankruptcies.

Finally, Glossner published a study in 2018 that analyzed stock returns of controversial companies, using data from RepRisk.<sup>33</sup> He found that a portfolio of controversial companies from the U.S. had significant abnormal negative returns and alpha between -3.5% and -3.7% per year. The same exercise was conducted with a portfolio of controversial companies from Europe and the results were similar: significant abnormal negative returns and alpha between -2.0% and -2.9% per year. Overall, the author found that weak CSR practices led to loss of shareholder value through increased risk of new ESG incidents that could affect the long-term performance of the firm. Screening out controversial companies could thus improve investment performance.

The volume of cross-sectional regression analysis on CSR and financial performance is substantial. The following reviews are notable examples of many that determined a correlation between strong sustainability business practices and performance:

- Arabesque Partners (who reviewed over 200 high-quality studies, industry reports, review papers and books)<sup>34</sup>
- Revelli and Viviani (who reviewed 85 studies and 190 experiments)<sup>35</sup>
- Deutsche Bank (who evaluated 56 academic studies)<sup>36</sup>
- Morgan Stanley (who reviewed 3 industry studies and 1 meta-analysis of 190 of the highest quality academic studies)<sup>37</sup>

### **KEY FINDINGS INCLUDE:**

- There is a positive relationship between strong governance practices and stock price performance.
- ✓ There is a positive relationship between strong environmental performance and stock price performance.
- ✓ There is a positive relationship between high employee satisfaction and stock price performance.
- ✓ The use of aggregated sustainability scores to determine the impact on performance has demonstrated evidence of a positive impact.
- Companies with high ESG ratings outperform the market in the medium (three to five years) and long term (five to 10 years).
- Companies with high ESG ratings have a lower cost of debt and equity.
- ✓ Strong ESG practices improve operational performance of firms.
- CSR considerations in stock market portfolios do not result in financial weakness.
- Companies that prioritize sustainability manage environmental, financial and reputational risks better, which increases likelihood of reduced volatility of cash flows.

Bank of America Merrill Lynch's ABCs of ESG study (2018)<sup>38</sup> confirms much of the above. The study looked at whether MSCI, Sustainalytics and Thomson Reuters ESG scores were signals of alpha, future earnings risk, future price volatility, future return on equity (ROE), and re-rating on forward price to earnings (P/E). Findings included:

MSCI scores have shown alpha over the past four years.

<sup>31</sup>ihid

<sup>&</sup>lt;sup>32</sup>ABCs of ESG, Bank of America Merrill Lynch, 2018. By Savita Subramanian et al. See <a href="https://www.bofaml.com/content/dam/boamlimages/documents/articles/lD18\_0970/abcs\_of\_esg.pdf">https://www.bofaml.com/content/dam/boamlimages/documents/articles/lD18\_0970/abcs\_of\_esg.pdf</a>

<sup>&</sup>lt;sup>33</sup>The Price of Ignoring ESG Risks, Catholic University Eichstätt-Ingolstadt, 2018. By Simon Glossner. See <a href="https://www.reprisk.com/content/5-publications/5-research/2-esg-risks-and-the-cross-section-of-stock-returns/executive-summary-the-price-of-ignoring-esg-risks.pdf">https://www.reprisk.com/content/5-publications/5-research/2-esg-risks-and-the-cross-section-of-stock-returns/executive-summary-the-price-of-ignoring-esg-risks.pdf</a>

<sup>&</sup>lt;sup>34</sup>From the Stockholder to the Stakeholder: How Sustainability Can Drive Financial Outperformance, Arabesque Partners, 2015. See <a href="https://arabesque.com/research/From\_the\_stockholder\_to\_the\_stakeholder\_web.pdf">https://arabesque.com/research/From\_the\_stockholder\_to\_the\_stakeholder\_web.pdf</a>

<sup>35</sup>Financial performance of socially responsible investing (SRI): what have we learned? Business Ethics Journal, 2014. By Christophe Revelli, Jean Laurent Viviani. See <a href="https://onlinelibrary.wiley.com/doi/abs/10.1111/beer.12076">https://onlinelibrary.wiley.com/doi/abs/10.1111/beer.12076</a>

<sup>36</sup>Sustainable Investing, Deutsche Bank, 2012. By Mark Fulton et al. See https://www.db.com/cr/en/docs/Sustainable\_Investing\_2012.pdf

<sup>&</sup>lt;sup>37</sup>Sustainable Reality: Understanding the Performance of Sustainable Investment Strategies, Institute for Sustainable Investing, Morgan Stanley, 2015. See <a href="https://www.morganstanley.com/ideas/sustainable-investing-performance-potential">https://www.morganstanley.com/ideas/sustainable-investing-performance-potential</a>

<sup>38</sup>ABCs of ESG, Bank of America Merrill Lynch, 2018. By Savita Subramanian et al. See <a href="https://www.bofaml.com/content/dam/boamlimages/documents/articles/lb18\_0970/abcs\_of\_esg.pdf">https://www.bofaml.com/content/dam/boamlimages/documents/articles/lb18\_0970/abcs\_of\_esg.pdf</a>

- Sustainalytics scores produced mixed signals of future returns, but generally exhibited negative alpha.
- Thomson Reuters scores have generally been strong signals of alpha.

MSCI, Sustainalytics and Thomson Reuters scores were all strong signals for future earnings risk where companies with the highest ESG scores historically experienced less future earnings volatility.

Results were similar for ESG scores as a signal of future price volatility. ESG scores from all three ratings providers were good signals for future price volatility, where companies with the highest ESG scores historically experienced significantly less price volatility. Furthermore, ESG scores from all three providers were all shown to be effective signals of future ROE, where companies with the highest ESG scores had higher median ROE relative to companies in the bottom quintiles of ESG scores.

Finally, the study found that companies with the highest overall MSCI and Sustainalytics ESG scores have been significantly re-rated on forward P/E relative to companies in the bottom quintile of MSCI ESG scores, and that Thomson Reuters ESG scores have been an effective signal of significant future price declines. Companies who had extreme price declines over the next five years had ESG scores, on average, in the 47th percentile and companies who had minimal declines over the same time period had ESG scores, on average, in the 70th percentile.

Finally, the results of Empirical Research Partners' 2018 study<sup>39</sup> support the argument that high scoring ESG companies outperform. This research is important because it uses an ESG stock selection model that attempts to address the issue of data availability as it pertains to ESG scoring. The model assesses material ESG metrics by industry and assigns an "ESG Directional Score". This score ranks companies based on a number of ESG factors. However, researchers also assign an "ESG Disclosure Score." This score counts the number of metrics that a company discloses data on. Missing or incomplete data (particularly environmental and social data) is an issue of consistent concern amongst socially responsible investors.

In terms of performance, stocks with the highest "ESG Directional Scores" outperformed the market by +1.7% per year. Stocks with the lowest "ESG Directional Scores" underperformed the market by -3.4% per year. Companies with the highest "ESG Disclosure Scores" outperformed the

market by a similar amount and companies with the lowest scores underperformed by a similar amount.

The study also attempts to isolate incremental alpha added by ESG factors. The study found that there was a significant correlation between traditional financial metrics used by fundamental analysts to identify high quality companies and the model's ESG scores. However, after overlaying the ESG model and the core model (which looks at traditional financial metrics), the study found that stocks in the top quintile of the core model outperformed the market unless they had a bottom quintile ESG score.

### **Challenges**

Despite the fact that most of these studies found evidence of a positive linkage between corporate social performance and financial performance, these studies have suffered and continue to suffer from methodological failings that make it difficult to draw any strong conclusions. Three serious methodological problems remain:

### 1. Definition of the independent variable(s)

Researchers are attempting to determine if CSR produces better financial performance. Three approaches have been used to specify the independent variable:

- i. Using one CSR attribute such as good environmental stewardship or good corporate governance – as a proxy for CSR
- ii. Using multiple CSR attributes as separate independent variables
- iii. Converting multiple CSR variables into a single CSR "index", which is then used as the independent variable.

Further, many CSR variables have a strong qualitative element. This makes it difficult to convert them into numerical values, which is necessary to perform statistical analysis. These definitional issues mean that CSR studies are often not directly comparable. This, in turn, undermines the ability to reach strong general conclusions from this body of research.

### 2. Improper model specification/omitted variables

Most often these studies have used relatively simple linear regression models to determine if a statistical relationship exists between CSR and financial performance. Until recently, these studies have often omitted other variables that could affect financial performance. Some of the better recent work has integrated CSR variables into a more general asset-pricing model.

### 3. Correlation does not mean causation

Establishing a positive linkage between CSR and financial performance does not necessarily mean that CSR caused the positive financial performance. In fact, the opposite could be true. Perhaps CSR is a "luxury good" that is pursued by companies that are already highly profitable. According to this view, companies with weak financial performance cannot afford to be "socially responsible" but are instead focused on core production activities designed to improve short-term financial performance. Bank of America Merrill Lynch's 2018 study<sup>40</sup> attempted to address the issue of correlation or causation. The study analyzed ESG scores to see if companies that had strong past stock performance were more likely to observe an increase in their ESG score in the future and vice versa. The results determined that there was no compelling relationship between past performance and future changes in ESG ratings.

Additionally, Empirical Research Partners' 2018 study<sup>41</sup> found that their ESG model tended to favor mega-cap stocks which generally have more resources to dedicate to CSR activities. In fact, stocks with the biggest market cap were twice as likely to be included in the top quintile of the "ESG Directional Score". Despite this finding, they illustrate that the mega-cap tilt doesn't drive the model's alpha and that the model has been effective in identifying outperforming and underperforming stocks regardless of market cap. These results begin to cast some doubt on the notion that CSR is a "luxury good" available only to high performing companies. However, this methodological issue is far from resolved.

These methodological issues are known, and researchers have sought to address them in more recent studies. There appears to be an increase in available ESG data and an increased focus on providing data that allows investors to compare companies in this area.<sup>42</sup> The results of ensuing studies have been mixed, but generally have found either a positive relationship between corporate social responsibility and financial performance or a relationship that was not statistically significant.

### Summary and conclusion

This report has provided a review of empirical literature related to the question: does socially responsible investing produce lower investment returns? Three distinct bodies of

research have addressed this question. The first looked at the performance of SRI indices relative to traditional market indices. The second examined the performance of SRI mutual funds relative to traditional mutual funds and/or market indices. The third has tried to determine if there is a linkage between corporate social responsibility and improved financial performance. The chief finding of this research is that socially responsible investing does not result in lower investment returns.

This finding is significant because it provides support to individual investors and trustees of institutional funds that they can pursue a strategy of socially responsible investing with the expectation that investment returns will be similar to traditional investment options. Since the initial publication of this paper, much of the research on socially responsible investing indicates that a strategy that seeks to include high ESG-scoring companies and exclude low ESG-scoring companies has the potential for enhanced investment returns.

However, despite the increase in volume of research on the topic, underlying methodological issues have yet to be fully addressed. While the updated version of this paper reaffirms that socially responsible investment does not necessarily result in lower investment returns, the question of whether socially responsible investment strategies outperform traditional investment strategies remains inconclusive.

Finally, it is clear that the question of whether or not SRI reduces investment returns will never be laid completely to rest. One reason is that this is a difficult empirical question. There will always be legitimate disputes over the quality of the data and the most appropriate methodology to use.

Perhaps it is more important to recognize that this question will not be answered to everyone's satisfaction because many of the people engaged in this debate carry strong ideological views. Some opponents of SRI refuse to acknowledge that anything other than financial factors can potentially affect the value of a security. Conversely, some proponents of SRI are so attached to their morality and personal beliefs that they cannot fathom that incorporating these beliefs and values does not have a beneficial effect on investment returns. The challenge for the rest of us is to ignore the rhetorical noise emanating from these extreme views and focus on the facts.

<sup>&</sup>lt;sup>40</sup>ABCs of ESG, Bank of America Merrill Lynch, 2018. By Savita Subramanian et al. See <a href="https://www.bofaml.com/content/dam/boamlimages/documents/articles/">https://www.bofaml.com/content/dam/boamlimages/documents/articles/</a> ID18 0970/abcs of esg.pdf

<sup>41</sup>Why do investors buy ESG funds? Empirical Research Partners, 2018. By Rochester Cahan and Yu Bai.

<sup>&</sup>lt;sup>42</sup>Corporate Social Performance and Financial Performance: Sample-Selection Issues, Sage Journals, 2015. By Ali M. Shahzad and Mark P. Sharfman. See <a href="https://journals.sagepub.com/doi/abs/10.1177/0007650315590399?journalCode=basa">https://journals.sagepub.com/doi/abs/10.1177/0007650315590399?journalCode=basa</a>

This document is provided by RBC Global Asset Management (RBC GAM) for informational purposes only and may not be reproduced, distributed or published without the written consent of RBC GAM. This document does not constitute an offer or a solicitation to buy or to sell any security, product or service in any jurisdiction. This document is not available for distribution to people in jurisdictions where such distribution would be prohibited.

RBC GAM is the asset management division of Royal Bank of Canada (RBC) which includes RBC Global Asset Management Inc. (RBC GAM Inc.), RBC Global Asset Management (U.S.) Inc., RBC Global Asset Management (UK) Limited, RBC Investment Management (Asia) Limited, and BlueBay Asset Management LLP, which are separate, but affiliated subsidiaries of RBC.

In Canada, this document is provided by RBC GAM Inc. (including Phillips, Hager & North Investment Management) which is regulated by each provincial and territorial securities commission with which it is registered. In the United States, this document is provided by RBC Global Asset Management (U.S.) Inc., a federally registered investment advisor. In Europe this document is provided by RBC Global Asset Management (UK) Limited. RBC Global Asset Management (UK) Limited is authorised and regulated by the UK Financial Conduct Authority. In Asia, this document is provided by RBC Investment Management (Asia) Limited, which is registered with the Securities and Futures Commission (SFC) in Hong Kong.

This document has not been reviewed by, and is not registered with any securities or other regulatory authority, and may, where appropriate, be distributed by the above-listed entities in their respective jurisdictions. Additional information about RBC GAM may be found at www.rbcgam.com.

This document is not intended to provide legal, accounting, tax, investment, financial or other advice and such information should not be relied upon for providing such advice. RBC GAM takes reasonable steps to provide up-to-date, accurate and reliable information, and believes the information to be so when printed. RBC GAM reserves the right at any time and without notice to change, amend or cease publication of the information.

Any investment and economic outlook information contained in this document has been compiled by RBC GAM from various sources. Information obtained from third parties is believed to be reliable, but no representation or warranty, express or implied, is made by RBC GAM, its affiliates or any other person as to its accuracy, completeness or correctness. RBC GAM and its affiliates assume no responsibility for any errors or omissions.

Past performance is not indicative of future results. Return estimates are for illustrative purposes only and are not a prediction of returns. Actual returns may be higher or lower than those shown and may vary substantially over shorter time periods. It is not possible to invest directly in an unmanaged index.

Some of the statements contained in this document may be considered forward-looking statements which provide current expectations or forecasts of future results or events. Forward-looking statements are not guarantees of future performance or events and involve risks and uncertainties. Do not place undue reliance on these statements because actual results or events may differ materially from those described in such forward-looking statements as a result of various factors. Before making any investment decisions, we encourage you to consider all relevant factors carefully.

