

Carleton Centre for Community Innovation Carleton University

Canadian SRI Mutual Funds Risk / Return Characteristics

Carleton Centre for Community Innovation

Dr. Tessa Hebb

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Executive Summary:

- We find that the SRI Equity Mutual Funds in Canada examined in this study, financially outperform their respective benchmarks 63% of the time.
- We find that the SRI Equity Mutual Funds outperformed risk measurement standard industry benchmarks 55% of the time, demonstrating the ability for SRI funds to reduce risk in investment portfolios.
- These findings are particularly strong for Sharpe ratios and Sortino ratios that measure the excess return per each unit of risk taken. SRI equity funds outperformed the benchmark Sharpe Ratios 63% of the time, and Sortino ratios (which measure excess return against downside loss) 72% of the time.
- We find that the SRI Fixed Income and Balanced Mutual Funds in Canada examined in this study, financially outperform their respective benchmarks 67% of the time.
 - We find Canadian Fixed Income SRI funds and Canadian Balanced SRI funds to be in line with other Canadian mutual funds in these asset classes with regard to risk reduction in these portfolios.
- Again they show the ability of SRI funds to reduce downside risk, outperforming benchmark on their Sortino ratio 61% of the time.

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Introduction

Socially responsible investing (SRI) is one of fastest growing investment trends in the last decade. According to the Responsible Investment Association of Canada over \$1 trillion (as of December 31, 2013) is managed in Canada using one or more responsible investment (RI) strategies. These assets grew from \$600 billion to more than \$1 trillion in just two years, representing a 68% growth rate. Retail SRI mutual funds and venture capital funds in Canada, have grown from \$13.48 billion to \$17.5 billion in this period, with the SRI mutual fund industry increasing by 52.3%, from \$4.36 billion to \$6.64 billion. This compares to 29.8% growth in traditional mutual funds during the same period.

SRI investors use environmental, social, and governance (ESG) factors in their investment decision-making. It is evident that the demand for these products by Canadians is on the upswing. A recent study found that 92% of Canadians think it is important to choose investments that align with their values (Standard Life, 2011; NEI, 2014). Investment managers apply a variety of approaches in SRI: best-of-class screening, ESG integration, shareholder engagement, negative screening, and impact investing are the most popular methods employed. SRI uses the term 'doing well by doing good'. It is suggested that taking environmental, social and governance factors into consideration can reduce risk in a portfolio and may lead to outperformance.

The traditional investment approach argues that SRI limits the investment universe and results in a decrease in value. But this view is not backed up by empirical evidence. In fact most studies show that SRI funds deliver comparable and in some cases superior returns to those of traditional funds.¹

¹ A recent Morgan Stanley Report (2015) found that SRI equity mutual funds in the US performed favourably compared to traditional counterparts. Osthoff and Kempf (2007) found that investors can earn remarkably high abnormal returns if they employ a long high SRI rating, short low SRI rating investing strategy. A similar study by Russell Investments also found a link between ESG and value creation (2014) Eccles, Lannou, and Serafein (2012) reinforce these results, finding a group of high sustainability funds had annual abnormal performance of 4.8% higher than a group of low sustainability funds.

The reasoning behind the link between ESG and financial returns lies in the fact that companies with high ESG standards have been found to outperform companies with low ESG ratings. A recent academic meta-study done at Oxford University looked at over 190 studies and found that 80% of the studies showed that stock price performance is positively influenced by good sustainability practices (Clark et al, 2014). Margolis et al, 2003 looked at 109 studies on the link between corporate financial and social performance and CSR and found most studies indicated a positive relationship (54) while only 7 of the 109 studies found a negative relationship, the remainder were either neutral or mixed.

While many studies have focused on the link between financial performance and ESG, to date few have focused on whether taking ESG factors into account can lower risk in a portfolio, which is one of the central claims made by SRI and RI proponents. Increasingly investors are seeking long-term stable returns. Particularly in this period following the financial crisis of 2008, investors are avoiding undue volatility (particularly downward volatility) in their investment portfolios.

This study examines the relationship between risk and return in Canadian SRI mutual

All Canadian SRI funds examined in this study have an average or below average risk rating from Morningstar. funds. We ask whether Canadian SRI mutual funds are able to provide solid financial returns for investors while simultaneously reducing risk in their portfolios. We measure these funds risk and return characteristics against the average risk and returns for the Canadian mutual funds across eight common asset classes in Canada. These include equity, fixed income and balanced mutual funds. We use 1, 3, 5, and 10 year observations. We find

that the SRI equity mutual funds examined here financially outperform the benchmark 63% of the time, while simultaneously reducing risk in the portfolio. The SRI equity mutual funds outperformed their benchmark on risk factors 55% of the time. They are particularly strong in generating excess return for each unit of risk taken with Sharpe Ratios outperforming 63% of the time and Sortino Ratios, which measure excess return per unit of downside risk, 72% of the time.

We find the SRI fixed income and balanced funds examined in this study financially outperform the benchmark 67% of the time, with risk characteristics in line with other Canadian mutual funds in these asset classes. Fixed Income and Balanced Funds examined outperformed benchmark 61% of the time in their Sortino ratios (measuring excess return per unit of downside risk).

Methodology

We examined Canadian SRI mutual funds and measured their financial returns and risk characteristics against applicable Morningstar benchmarks. We used the Responsible Investment Association of Canada's SRI mutual fund listing to identify the Canadian SRI funds to be used in the study. We examined 8 asset classes: four in equity: Canadian Equity, CAN US Equity, CAN International Equity, and CAN Global Equity, and four in Fixed Income and Balanced: Can Fixed Income, CAN Fixed Income Balanced, Canadian Neutral Balanced, and CAN Global Equity Balanced. We used Morningstar data across 4 time periods 1 year, 3 year, 5 year and 10 year data. We used annualized total returns and risk data for month end March 31st 2015.

Canadian SRI Equity Mutual Funds

Canadian Equity SRI Funds:

Morningstar Benchmark: Canadian Equity Benchmark: Includes 897 funds which meet the following criteria. Funds in the Canadian Equity category must invest at least 90% of their equity holdings in securities domiciled in Canada, and their average market capitalization must be greater than the Canadian small/mid cap threshold.

Using RIA listings of Canadian SRI Mutual Funds by Asset Class we examined 22 SRI Canadian Equity Mutual Funds found in the Morningstar database in this asset class:

Desjardins Environment
Desjardins Environment C
Desjardins Environment F
GWL Ethics (G) DSC
GWL Ethics (G) NL
IA Clarington Inhance Cdn Eq SRI Cl A
IA Clarington Inhance Cdn Eq SRI Cl F
Meritas Jantzi Social Index
Meritas Jantzi Social Index Series F
Meritas Monthly Div and Income Series F
Meritas Monthly Dividend and Income
NEI Ethical Canadian Equity A

NEI Ethical Canadian Equity F
PH&N Community Values Cdn Equity Adv
PH&N Community Values Cdn Equity Sr C
PH&N Community Values Cdn Equity Sr D
PH&N Community Values Cdn Equity Sr F
RBC Jantzi Canadian Equity Adv
RBC Jantzi Canadian Equity Sr A
RBC Jantzi Canadian Equity Sr D
RBC Jantzi Canadian Equity Sr F
RBC Jantzi Canadian Equity Sr F

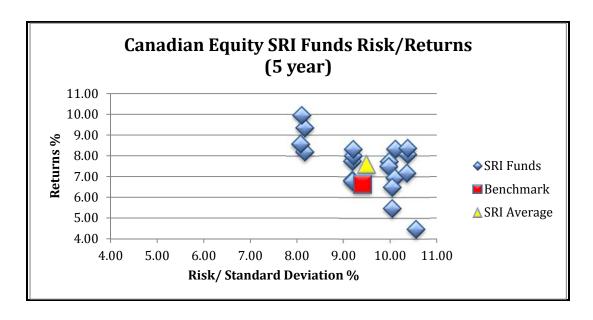
Findings

Returns:

- 9/22 SRI funds in this asset class outperformed the Morningstar benchmark in 1 year performance
- Over three year period, 13/20 SRI funds outperformed the benchmark
- Over 5 year period, 16/19 SRI funds outperformed benchmark
- Over the 10 year period 3/6 outperformed benchmark

SRI funds outperformed the benchmark in 41/67 observations over 4 time periods - 61% of the time.

Figure 1: Canadian Equity SRI Funds Risk/Returns (5 year)



Standard Deviation:

S/D measures of risk in a portfolio by calculating the volatility of the returns, in other words how large are the swings between returns over the period. It measures the variance from the mean - or the range of returns in a given period from the average return in that period. This includes both upswings and downturns in performance. The lower the standard deviation the less risk the investor takes on.

- Over three year period, 4/20 SRI funds had less volatile returns in comparison to benchmark.
- Over 5 year period,9/19 were less volatile then the benchmark
- Over 10 year period, 2/6 less volatile the benchmark

15/45 observations had lower SD than benchmark over 3 time periods - 33% of the time

Sharpe Ratio:

This ratio measures the excess return a fund makes for each unit of risk it takes on, many feel it is a better measurement of risk in an investment portfolio than standard deviation. With Sharpe ratios, the higher the number the more positive the outcome for investors.

- 13/20 outperformed the benchmark over the last three years
- 15/19 outperformed the benchmark over the last five years
- 3/6 outperformed the benchmark over 10 year period

31/45 observations had stronger Sharpe ratios than the benchmark over 3 time periods - 69 % of the time.

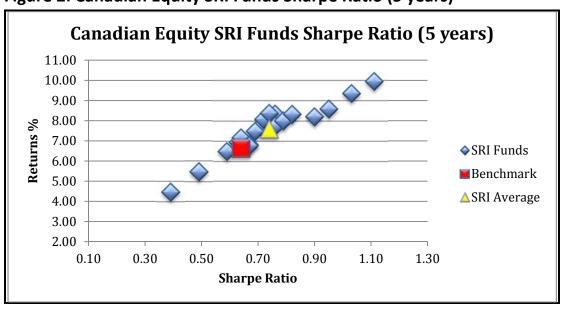


Figure 2: Canadian Equity SRI Funds Sharpe Ratio (5 years)

Sortino Ratio

A final measurement of risk in the portfolio is the Sortino ratio. The Sortino ratio measures excess return for each unit of downside risk. Both Standard Deviation and Sharpe Ratios punish funds that have volatility when generating higher returns as well as lower returns, but higher return volatility is not the kind of volatility that bothers most investors. Investors are concerned with the risk of losing money or downside risk. Like the Sharpe ratio the higher the number the more positive the outcome for investors.

- Over three years, 13/20 SRI funds outperformed benchmark, while the remainder were in line with the benchmark.
- Over 5 years, 16/19 SRI outperformed benchmark
- Over 10 years, 3/6 outperformed benchmark

32/45 observations had stronger Sortino ratios than the benchmark over 3 time periods - 71% of the time.

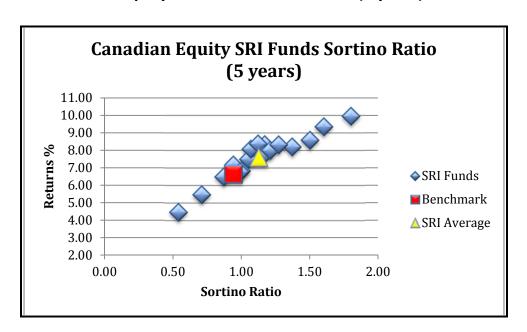


Figure 3: Canadian Equity SRI Funds Sortino Ratio (5 years)

U.S. Equity

US Equity Benchmark: The benchmark used for this asset class is Morningstar CAN US Equity. Funds in the U.S. Equity category must invest at least 90% of their equity holdings in securities domiciled in the United States, and their average market capitalization must be greater than the U.S. small/mid cap threshold

There are substantially fewer US SRI Funds in Canada. Using the RIA list of such funds we find four in the Morningstar database:

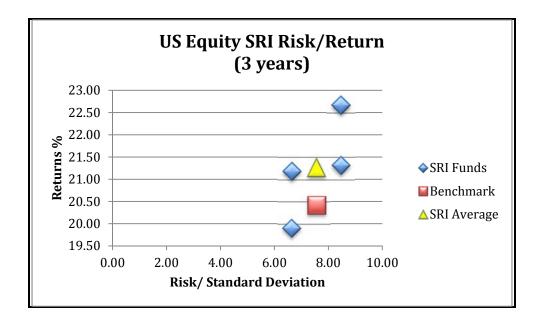
Meritas U.S. Equity Series F Meritas US Equity NEI Ethical American Multi-Strategy A NEI Ethical American Multi-Strategy F

Returns:

- Over the one year period, 4/4 SRI funds in this asset class significantly outperformed the Morningstar benchmark
- Over three year period, 3/4 SRI funds outperformed the benchmark
- Over 5 year period, 1/4 SRI funds outperformed benchmark, the remainder were in line with the benchmark.
- Over the 10 year period 1/2 outperformed the benchmark.

SRI funds outperformed the benchmark in 9/14 observations over 4 time periods - 64% of the time.





Standard Deviation:

• Over three year period, 2/4 SRI funds had less volatile returns in comparison to benchmark.

- Over 5 year period, 2/4 were less volatile
- Over 10 year period, 1/2 less volatile

5/10 observations had lower SD than benchmark over 3 time periods roughly 50% of the time.

Sharpe Ratio:

- 2/4 outperformed the benchmark over the last three years
- 3/4 outperformed the benchmark over the last five years
- 1/2 outperformed the benchmark over 10 year period

6/10 observations had stronger Sharpe ratios than the benchmark over 3 time periods - 60% of the time.

Sortino Ratio:

- 4/4 outperformed the benchmark over the last three years
- 4/4 outperformed the benchmark over the last five years
- 1/2 outperformed the benchmark over 10 year period

9/10 observations had stronger Sortino ratios than the benchmark over 3 time periods - 90% of the time.

International Equity

Morningstar Benchmark: We use the Morningstar Canadian International Equity Benchmark. Funds in the International Equity category must invest at least 95% of their equity assets in countries other than Canada and the United States and at least 70% of their equity assets in developed countries. Funds that do not meet any of the requirements of the more focused geographic equity categories and that invest less than 90% of their assets in any single country or region will be assigned to the International Equity category.

Using RIA listings of Canadian SRI Mutual Funds by Asset Class we found 4 SRI Canadian International Equity Mutual Funds in the Morningstar database in this asset class:

Meritas International Equity Meritas International Equity Series F NEI Ethical International Equity A NEI Ethical International Equity F

Returns:

- 3/4 funds outperformed the benchmark in 1 year
- 0/4 funds outperformed the benchmark over a 3 year return period
- 3/4 funds outperformed the International Equity Benchmark over a five year period.
- 1/2 funds outperformed the benchmark in the 10 year time period

SRI funds outperformed the benchmark in 7/14 observations over 4 time periods - 50% of the time.

Standard Deviation:

- Over three year period, 0/4 SRI funds had less volatile returns in comparison to benchmark.
- Over 5 year period, 2/4 were less volatile
- Over 10 year period, 1/2 less volatile

3/10 observations had lower SD than benchmark over 3 time periods roughly 30% of the time.

Sharpe Ratio:

- 0/4 outperformed the benchmark over the last three years
- 2/4 outperformed the benchmark over the last five years
- 1/2 outperformed the benchmark over 10 year period

3/10 observations had stronger Sharpe ratios than the benchmark over 3 time periods - 30% of the time.

Sortino Ratio:

- 1/4 outperformed the benchmark over the last three years
- 3/4 outperformed the benchmark over the last five years
- 1/2 outperformed the benchmark over 10 year period

5/10 observations had stronger Sortino ratios than the benchmark over 3 time periods - 50% of the time.

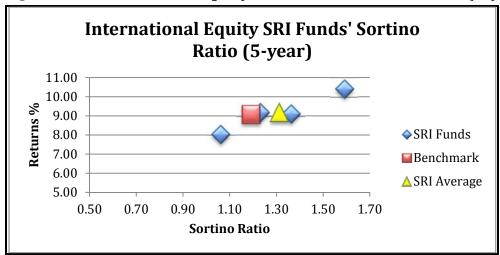


Figure 5: International Equity SRI Funds' Sortino Ratio (5-year)

Global Equity

Morningstar Benchmark: Canadian Global Equity Benchmark: 2259 funds. Funds in the Global Equity category must invest in securities domiciled anywhere across the globe such that their average market capitalization is greater than the small/mid cap threshold, and invest more than 5% and less than 90% of their equity holdings in Canada or the U.S. Funds that do not meet any of the requirements of other geographic equity categories and have no formal restrictions that limit where they can invest will be assigned to this category.

Using RIA listings of Canadian SRI Mutual Funds by Asset Class we found 17 SRI Canadian Global Equity Mutual Funds in the Morningstar database in this asset class:

IA Clarington Inhance Glbl Eqty SRI Cl A

IA Clarington Inhance Glbl Eqty SRI Cl F

Meritas Max Growth Portfolio Series A

Meritas Max Growth Portfolio Series F

NEI Ethical Global Dividend A

NEI Ethical Global Dividend F

NEI Ethical Global Equity A

NEI Ethical Global Equity F

PH&N Community Values Global Eq Adv

PH&N Community Values Global Eq Sr C

PH&N Community Values Global Eq Sr D

PH&N Community Values Global Eq Sr F

RBC Jantzi Global Equity Adv

RBC Jantzi Global Equity Sr A

RBC Jantzi Global Equity Sr D

RBC Jantzi Global Equity Sr F

RBC Jantzi Global Equity Sr I

Findings

Returns:

- 12/17 SRI funds outperformed the benchmark over the 1 year time period. 11/17 SRI funds outperformed the benchmark over the 3 year time period. 1 was in line with benchmark.
- 12/14 SRI funds outperformed the benchmark over the 5 year time period.
- 0/2 SRI funds outperformed in the 10 year period.

SRI funds outperformed the benchmark in 35/50 observations over 4 time periods - 70% of the time. The average outperformance in the 1 and 3 year time periods was large.

Standard Deviation:

- 2/17 SRI funds had lower volatility than the benchmark over the 3 year period
- 5/14 SRI funds had lower volatility than the benchmark over the 5 year period
- 0/2 SRI funds had lower volatility than the benchmark over the 10 year period

7/33 observations had lower SD than benchmark over 3 time periods - roughly 21% of the time.

Sharpe Ratio:

- 13/17 outperformed the benchmark over 3 year period
- 9/14 funds outperformed the benchmark over 5 year period
- 0/2 funds outperformed benchmark over 10 year period

22/33 observations had stronger Sharpe ratios than the benchmark over 3 time periods - 67% of the time.

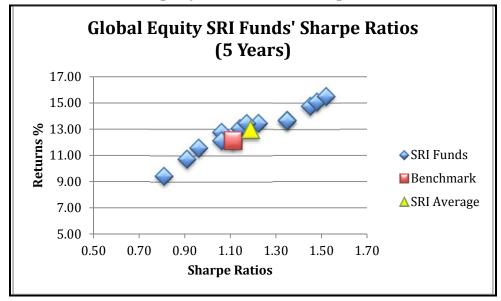


Figure 6: Global Equity SRI Funds' Sharpe Ratios (5 Years)

Sortino Ratio:

- 13/17 outperformed the benchmark over 3 year period
- 12/14 funds outperformed the benchmark over 5 year period
- 0/2 fund outperformed benchmark over 10 year period

25/33 observations had stronger Sortino ratios than the benchmark over 3 time periods - 76% of the time.

SRI Equity Funds Conclusions

Returns

We used 145 observations of the financial performance of 47 SRI equity mutual funds (Canadian equity, US equity, International equity and Global Equity) in the Canadian market across a one, three, five and 10 year time periods (as of March 31st 2015) and compared them to their respective Morningstar benchmarks. We found that the SRI Equity Mutual Funds financially outperformed their respective benchmarks 63% of the time while also reducing risk in the investment portfolio.

Table 1: Canadian SRI Equity Mutual Funds' Returns Measured Against Benchmark

Equity	SRI outperformance	RI outperformance Total observations	
Return			
CDN equity	41	67	
US equity	9	14	
International equity	7	14	
Global equity	35	50	
Subtotal	92	145	
%	63%		

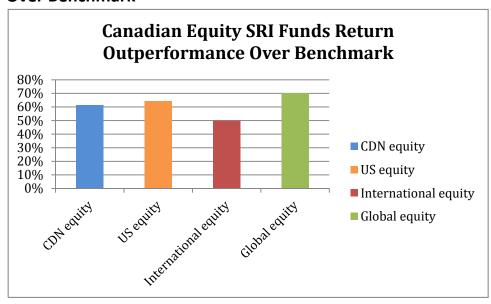


Figure 7: Canadian Equity SRI Funds Return Outperformance Over Benchmark

Risk

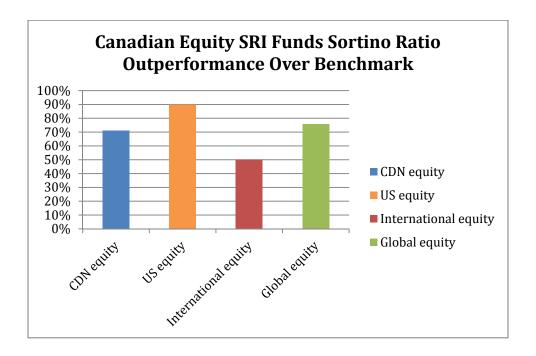
We used three measurements of risk in these portfolios, Standard Deviation, Sharpe ratios, and Sortino ratios to evaluate whether SRI equity mutual funds reduce risk. We made 294 observations of SRI Equity Mutual funds in Canada using these three measures over 3, 5 and 10 year time periods and comparing them to their respective benchmarks. We find that the SRI Funds outperformed risk measurement benchmarks 55% of the time. These findings are particularly strong for Sharpe ratios and Sortino ratios that measure the excess return per each unit of risk taken, using these two ratios the SRI funds are able to generate excess return at lower risk than the benchmark 63% for their Sharpe ratio and 72% of the time for their Sortino ratio. Reducing downside risk is particularly strong for SRI funds when compared to the benchmark.

Table 2: Canadian SRI Equity Mutual Funds Risk Characteristics Measured Against Benchmark

Equity Funds	SRI outperformance	Total observations
S/D		
CDN equity	15	45
US equity	5	10
International equity	3	10
Global equity	7	33
subtotal	30	98
%	31%	
Sharpe Ratio		
CDN equity	31	45
US equity	6	10
International equity	3	10
Global equity	22	33
subtotal	62	98
%	63%	
Sortino Ratio		
CDN equity	32	45
US equity	9	10
International equity	5	10

Global equity	25	33
subtotal	71	98
%	72%	
Total risk observations	163	294
%	55%	

Figure 8: Canadian Equity SRI Funds Sortino Ratio Outperformance Over Benchmark



Fixed Income and Balanced Mutual Funds

Canada Fixed Income

Morningstar Benchmark: Canadian Fixed Income: includes 1041 funds which meet the following criteria. Funds in the Canadian Fixed Income category must invest at least 90% of their fixed income holdings in Canadian dollars with an average duration greater than 3.5 years and less than 9.0 years. In addition, these funds must invest primarily in investment-grade fixed-income securities, such that the average credit quality of the portfolio as a whole is investment grade (BBB or equivalent rating or higher) and not more than 25% of the portfolio's holdings are invested in high yield fixed income securities. For purposes of the category definition, up to 30% of a Fund's assets may be held in Foreign Fixed Income products which will be treated as Canadian content provided that the currency exposure on those holdings is hedged into Canadian Dollars.

Using RIA listings of Canadian SRI Mutual Funds by Asset Class we found 10 SRI Fixed Income Mutual Funds in the Morningstar database in this asset class:

Meritas Canadian Bond
Meritas Canadian Bond Series F
NEI Canadian Bond
NEI Canadian Bond Series F
NEI Income Series A
NEI Income Series F
PH&N Community Values Bond Adv
PH&N Community Values Bond Sr C
PH&N Community Values Bond Sr D
PH&N Community Values Bond Sr F

Findings:

Returns:

- 7/10 SRI funds outperform benchmark over 1 year
- 5/10 funds outperform benchmark 3 years,
- 4/8 SRI funds outperformed the benchmark in the 5 year period
- 1/3 SRI funds outperformed the benchmark in the 10 year period

SRI funds outperformed the benchmark in 17/31 observations over 4 time periods - 55% of the time.

Standard deviation:

- 2/10 SRI funds was less volatile than the benchmark over the 3 year period
- 1/8 SRI funds was less volatile then the benchmark over the 5 year period
- 1/3 SRI funds was less volatile than the benchmark over the 10 year period

 $4/21\,$ observations were less volatile than benchmark over 3 time periods - 19% of the time

Sharpe Ratio:

- 4/10 of the SRI funds outperformed the benchmark over the 3 year
- 3/8 SRI funds outperformed the benchmark in the 5 year period
- 1/3 SRI Funds outperformed the benchmark in the 10 year period

8/21 observations had stronger Sharpe ratios than the benchmark over 3 time periods - 38% of the time

Sortino Ratio:

- 4/10 of the SRI funds outperformed the benchmark over the 3 year
- 3/8 SRI funds outperformed the benchmark in the 5 year period
- 1/3 SRI Funds outperformed the benchmark in the 10 year period

8/21 observations had stronger Sortino ratios than the benchmark over 3 time periods - 38% of the time

Canadian SRI Balanced Funds

Canadian Fixed Income Balanced

Morningstar Benchmark: Funds in the Canadian Fixed Income Balanced category must invest at least 70% of total assets in a combination of equity securities domiciled in Canada and Canadian dollar-denominated fixed income securities and between 5% and 39% of their total assets in equity securities.

Using RIA listings of Canadian SRI Mutual Funds by Asset Class we found 12 SRI Fixed Income Balanced Mutual Funds in the Morningstar database in this asset class:

Desjardins SocieTerra Sec Mkt Port C
Desjardins SocieTerra Sec Mkt Port F
Desjardins SocieTerra Secure Market Port
IA Clarington Inhance Cnsrv SRI Port T6
Meritas Income & Growth Portfolio A
Meritas Income & Growth Portfolio F
Meritas Income & Growth Portfolio T
Meritas Income Portfolio Series A
Meritas Income Portfolio Series F
Meritas Income Portfolio Series T
NEI Ethical Select Conservative Port A
NEI Ethical Select Conservative Port F

Findings:

Returns

- 10/12 SRI funds outperform benchmark over 1 year
- 5/8 funds outperform benchmark 3 years,
- 3/4 SRI funds outperformed the benchmark in the 5 year period
- There is no 10 year data for SRI mutual funds in this asset class

18/24 SRI fund observations outperformed the benchmark in over 3 time periods - 75% of the time.

Standard deviation:

- 2/8 SRI funds were less volatile than the benchmark over the 3 year period.
- 0/4 SRI funds was less volatile then the benchmark 5 year period
- there were no observations in the 10 year time period

2/12 observations were less volatile than benchmark over 3 time periods - 17% of the time

Sharpe Ratio:

- 3/8 of the SRI funds outperformed the benchmark over the 3 year
- 1/4 SRI funds outperformed the benchmark in the 5 year period
- there were no observations in the 10 year time period

 $4/12\,$ observations had stronger Sharpe ratios than the benchmark over 3 time periods - 33% of the time

Sortino Ratio:

- 4/8 of the SRI funds outperformed the benchmark over the 3 year
- 1/4 SRI funds outperformed the benchmark in the 5 year period
- there were no observations in the 10 year time period

5/12 observations had stronger Sortino ratios than the benchmark over 3 time periods - 42% of the time

Canadian Neutral Balanced:

Morningstar Benchmark: Canadian Neutral Balanced Benchmark includes funds which meet the following criteria: Funds in the Canadian Neutral Balanced category must invest at least 70% of total assets in a combination of equity securities domiciled in Canada and Canadian dollar-denominated fixed income securities and between 40% and 60% of their total assets in equity securities.

Using RIA listings of Canadian SRI Mutual Funds by Asset Class we found 19 SRI Canadian Neutral Balanced Mutual Funds in the Morningstar database in this asset class:

Desjardins SocieTerra Bal Port C Desjardins SocieTerra Bal Port F Desjardins SocieTerra Balanced Portfolio IA Clarington Inhance Bal SRI Port A IA Clarington Inhance Bal SRI Port T6 Meritas Balanced Portfolio Meritas Balanced Portfolio Series F Meritas Balanced Portfolio T Meritas Growth and Income Portfolio A Meritas Growth and Income Portfolio F Meritas Growth Portfolio A Meritas Growth Portfolio F Meritas Growth and Income Portfolio T NEI Ethical Balanced A NEI Ethical Balanced F PH&N Community Values Balanced Adv PH&N Community Values Balanced Sr C PH&N Community Values Balanced Sr D PH&N Community Values Balanced Sr F

Findings:

Returns:

- 15/19 funds experienced higher returns than benchmark over a 1 year period
- 11/15 outperformed benchmark over 3 year period.
- 6/10 SRI funds outperformed benchmark over a 5 year period
- 1/3 SRI funds outperformed benchmark in the 10 year time period

SRI funds outperformed the benchmark in 33/47 observations over 4 time periods - 70% of the time.

Standard Deviation:

- 2/15 SRI funds exhibited lower volatility over a 3 year period
- 3/10 SRI funds exhibited lower volatility over a 5 year period

• 1/3 funds exhibited lower volatility over a 10 year period

 $6/28\,$ observations were less volatile than benchmark over 3 time periods - 21% of the time

Sharpe Ratio:

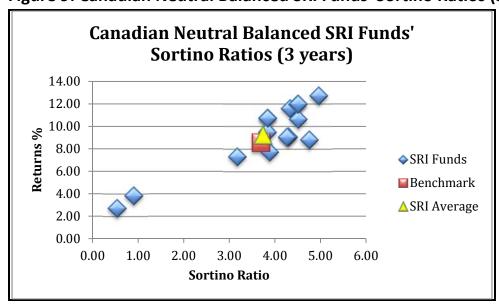
- 6/15 funds outperformed the benchmark over the 3 year period (2 were in line with benchmark)
- 1/10 outperformed over the 5 year period however all very close to benchmark.
- 0/3 outperformed over the 10 year period, one was close with benchmark.
 7/28 observations had stronger Sharpe ratios than the benchmark over 3 time periods 25% of the time

Sortino:

- 12/15 funds outperformed the benchmark over a 3 year period
- 6/10 funds outperformed benchmark over a 5 year period
- 1/3 funds outperformed the benchmark over a 10 year period

 $19/28\,$ observations had stronger Sortino ratios than the benchmark over 3 time periods - 68% of the time

Figure 9: Canadian Neutral Balanced SRI Funds' Sortino Ratios (3 years)



Canadian Global Equity Balanced:

Morningstar Benchmark: Canadian Global Equity Balanced: includes 1760 funds. Funds in the Global Equity Balanced category must invest less than 70% of total assets in a combination of equity securities domiciled in Canada and Canadian dollar-denominated fixed income securities. In addition, they must invest between 61% and 90% of their total assets in equity securities.

Using RIA listings of Canadian SRI Mutual Funds by Asset Class we found 10 SRI Canadian Global Equity Mutual Funds in the Morningstar database in this asset class:

Desjardins SocieTerra Growth Plus Port
Desjardins SocieTerra Growth Port plus C
Desjardins SocieTerra Growth Port Plus F
NEI Ethical Select Growth Port A
NEI Ethical Select Growth Port F
RBC Jantzi Balanced Adv
RBC Jantzi Balanced Sr A
RBC Jantzi Balanced Sr D
RBC Jantzi Balanced Sr F
RBC Jantzi Balanced Sr I

Findings

Returns:

- 6/10 funds outperformed the benchmark over 1 year period
- 5/8 funds outperformed the benchmark over 3 year period
- 6/7 funds outperformed the benchmark over 5 year period
- No 10 year data available for SRI funds in this asset class

SRI funds outperformed the benchmark in 17/25 observations over 3 time periods - 68% of the time.

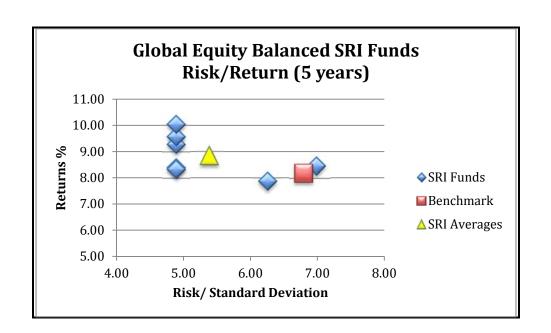


Figure 10: Global Equity Balanced SRI Funds Risk/Return (5 years)

Standard deviation:

- 7/8 funds were less risky than the benchmark over 3 year period
- 6/7 funds were less risky than benchmark over 5 year period
- No 10 year data

 $13/15\,$ SRI fund observations were less volatile than benchmark over 2 time periods - 87% of the time.

Sharpe Ratio:

- 6/8 funds outperformed benchmark over 3 year period
- 7/7 funds outperformed benchmark over 5 year period
- There is no ten year data available

13/15 observations had stronger Sharpe ratios than the benchmark over 2 time periods - 87% of the time.

Sortino Ratio:

- 7/8 funds outperformed benchmark over 3 year period
- 7/7 funds outperformed benchmark over 5 year period

14/15 SRI fund observations had stronger Sortino ratios than benchmark over 2 time periods - 93% of the time.

SRI Fixed Income and Balanced Mutual Funds Conclusions

Returns

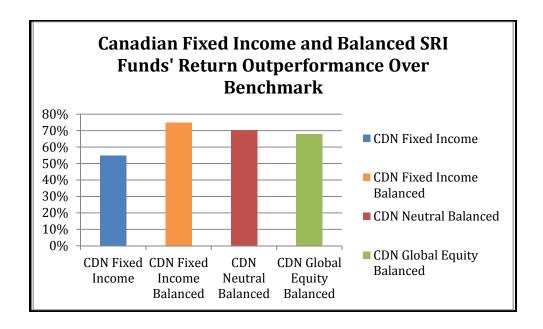
We used 127 observations of the financial performance of 51 SRI Fixed Income and Balanced mutual funds (CAN Fixed Income, CAN Fixed Income Balanced, CAN Neutral Balanced, and CAN Global Equity Balanced) in the Canadian market across a one, three, five and 10 year time periods (as of March 31st 2015) and compared them to their respective Morningstar benchmarks. We found that these SRI Fixed Income and Balanced Mutual Funds financially outperformed their respective benchmarks 67% of the time with risk characteristics in line with benchmark funds in each asset class.

Table 3: Canadian SRI Fixed Income and Balanced Mutual Funds' Returns Measured Against Benchmark

Fixed Income and Balanced

	SRI outperformance	Total observations
Return		
CDN Fixed Income	17	31
CDN Fixed Income Balanced	18	24
CDN Neutral Balanced	33	47
CDN Global Equity Balanced	17	25
Subtotal	85	127
%	67%	

Figure 11: Canadian Fixed Income and Balanced SRI Funds' Return Outperformance Over Benchmark



Risk

We used three measurements of risk in these portfolios, Standard Deviation, Sharpe ratios, and Sortino ratios to evaluate whether SRI Fixed Income and Balanced mutual funds reduce risk. We made 228 observations of SRI Fixed Income and Balanced Mutual funds in Canada using these three measures over 3, 5 and 10 year time periods and comparing them to their respective benchmarks. We find that the SRI Funds are in line with the benchmark in terms of risk to the portfolio. However the SRI funds are able to generate excess return at lower risk than the benchmark 61% of the time, measured by their Sortino ratio. Reducing downside risk is particularly strong for SRI funds when compared to the benchmark.

Table 4: Canadian SRI Fixed Income and Balanced Mutual Funds Risk Characteristics Measured Against Benchmark

Fixed Income and Balanced	SRI outperformance	Total observations
S/D		
CDN Fixed Income	4	21
CDN Fixed Income Balanced	2	12
CDN Neutral Balanced	6	28
CDN Global Equity Balanced	13	15
Subtotal	25	76
%	33%	
Sharpe Ratio		
CDN Fixed Income	8	21
CDN Fixed Income Balanced	4	12
CDN Neutral Balanced	7	28
CDN Global Equity Balanced	13	15
Subtotal	32	76
%	42%	
Sortino Ratio		
CDN Fixed Income	8	21
CDN Fixed Income Balanced	5	12
CDN Neutral Balanced	19	28

CDN Global Equity Balanced	14	15
Subtotal	46	76
%	61%	
Total observations	103	228
%	45%	

Final Thoughts

Many SRI skeptics believe that SRI funds underperform the market and add risk to an investment portfolio by reducing the universe available to the investor. Our research find the opposite to be true. This study examines the relationship between risk and return in Canadian SRI mutual funds. We found that Canadian SRI equity mutual funds are able to provide solid financial outperformance for investors while simultaneously reducing risk in their portfolios.

SRI mutual funds in this study show that taking ESG into account in investment selection lowers downside risks. We measure these funds risk and return characteristics against the average risk and returns for the Canadian mutual funds across eight common fund classes in Canada. These include equity, fixed income and balanced mutual funds. We use 1, 3, 5, and 10 year observations. We find that the SRI equity mutual funds examined here financially outperform the benchmark 63% of the time, while simultaneously reducing risk in the portfolio. The SRI equity mutual funds outperformed their benchmark on

risk factors 55% of the time. They are particularly strong in generating excess return for each unit of risk taken with Sharpe Ratios outperforming 63% of the time, and Sortino Ratios, which measure excess return per unit of downside risk, 72% of the time. These findings suggest that SRI funds are able to protect investors from downside risk in their equity portfolios.

We find the SRI Fixed Income and Balanced funds examined in this study financially outperform the benchmark 67% of the time, without adding undue risk to their portfolios. In fact the Fixed Income and Balanced Funds examined, outperformed benchmark 61% of the time in their Sortino ratios (measuring excess return per unit of downside risk). These findings echo those of similar studies conducted on US SRI mutual funds (Morgan Stanley, 2014; Russell Investments 2014). The demonstrate the fact that taking environmental, social and governance factors into consideration can lead to outperformance and reduce risk in a portfolio. Both of these considerations are of significant importance to investors.

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About the author

Dr. Tessa Hebb is the Director of the Carleton Centre for Community Innovation, Carleton University, Canada. Her research focuses on Responsible Investment and Impact Investment is funded by the Social Sciences and Humanities Research Council, Government of Canada. She received her doctorate from Oxford University. She has published many books and articles on responsible investing and impact investing policies including the volumes *The Routledge handbook of Responsible Investment, SRI in the 21st Century: Does it make a Difference to Society, Working Capital: the Power of Labor's Pensions; No Small Change: Pension Fund Corporate Engagement;* and *The Next Generation of Responsible Investing.*

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