Signaling Effect of Socially Conscious Mandate of Mutual Funds

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Aman Sunder, College for Financial Planning
Nandita Das, Delaware State University
Bernadette Ruf, Delaware State University
Jennifer Coombs, College for Financial Planning
Dakota Moran, College for Financial Planning

Abstract

The purpose of this paper is to investigate whether having a socially conscious mandate sacrifices financial performance of a mutual fund, as compared to mutual funds that have a comparable average ESG score even without having a responsibility or sustainability mandate. Previous studies have shown that having an intentional socially conscious mandate can limit the investment choices for the mutual funds. This study uses the data of all mutual funds domiciled in the United States that have been assessed by Morningstar® with ESG scores. We study if the risk-adjusted performance with a socially conscious mandate is statistically different from other ESG-rated funds.

Introduction

Socially Conscious Mandate (SCM) of a mutual fund indicates a deliberate effort by the mutual fund to invest in the individual companies based on non-financial and societal principles. Such funds are usually known as Socially Responsible Mutual Funds (SRMF). According to US SIF (2016), investment in the US-domiciled SRMF has grown over the past two years by 33% with assets under management totaling \$8.72 trillion at the start of 2016. Renneboog, Horst, and Zhang (2008) argue that SRMFs outperform conventional funds because SRMF portfolios comprise of corporations that demonstrate corporate social responsibility and transparency of their operations. Nofsinger and Varma (2012) found that SRMFs outperform conventional funds during periods of market crisis. In this study, we investigate whether having a socially conscious mandate affects the growth of the risk-adjusted performance of the funds.

Hypothesis and Dataset

HA: A mandate for socially consciousness does not affect the growth of risk-adjusted financial performance of a mutual fund.

Dataset: The mutual funds were selected from the Morningstar® Database from 2010 to 2017 that were domiciled in the United States and had the Morningstar® Portfolio ESG Scores of greater than zero to incorporate only the funds that Morningstar® had evaluated on environmental, social, and governance factors.

Methodology

Regression Model:

The regression model is as follows:

$$Y_{it} = X_{it}\,\beta_1 + Z_i\,\beta_2 + c_i + u_{it} \qquad (1)$$

Where,

t = 1 to 96 months (Year 2010 to 2017), i = mutual fund

Y is natural log of the monthly rolling average of Sortino ratio of the mutual funds.
X_{it} = Time variant fund characteristics
Z_i = Time invariant fund characteristics
c = unobserved individual fund characteristics (time-constant)
u = error term

The time-constant variables of interest included the indicator for Socially Conscious Mandate [0,1], indicators for surviving funds [0,1], and interactions of these variables, numerical ESG scores, fund age, longest manager tenure. The time-variant variables included annual expense ratio, natural log of the size of funds, controls for time (years), and seasonality (quarters).

Results

The summary statistics table shows that the dependent variable (natural log of Sortino ratio) was not different for funds, with or without the socially conscious mandate. There were significant differences in average values of portfolio ESG scores, Ln Fund Size, Expense Ratio, manager tenure, fund age, and survival of the funds. Regression table (1) shows a similar result that there was no significant relationship between the growth of the risk-adjusted returns (Ln Sortino Ratio) and the socially-conscious mandate. The regression model (2) isolates the relation of the growth of risk-adjusted performance to the surviving socially conscious funds, using an interaction term. It shows that the socially-conscious mandate had an overall positive relationship with the growth in risk-adjusted return. It also shows that the socially-conscious funds survived at the cost of the growth of their risk-adjusted performance, as compared to all funds that either didn't survive, or didn't have a mandate. Fund age, manager tenure, and fund size were positively related to the growth of risk-adjusted returns. Portfolio ESG scores had a small negative relationship with the growth of the risk-adjusted returns.

Implications

SCM funds perform as well as non-SCM funds in terms of their risk-adjusted performance. Given SCM funds have a socially conscious mandate, companies in these funds are able to manage risk better than non-SCM funds. Better management leads to a higher probability of survival of SCM funds, but at the cost of the growth of their risk-adjusted returns.

References

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Tables

Table 1: Summary Statistics

Variables	SCM = 0			SCM = 1			
	Mean	Std. Dev.	n	Mean	Std. Dev.	n	t-test SCM [1-0]
Ln (Sortino Ratio)	1.0	0.95	1629	1.0	1.01	68	- 0.77
Sortino Ratio	5.2	87.66	1629	11.1	209.14	68	4.78***
Portfolio ESG Score	51.0	5.10	1717	52.5	4.72	71	23.90***
Ln (Fund Size - Monthly)	19.9	1.890	1709	19.1	1.75	71	-34.02***
Fund Size - Monthly (Mn $)	2,570	10300	1709	2,370	11500	71	- 1.51
Expense Ratio (Annual)	1.3	0.35	1623	1.4	0.28	68	14.40***
Manager Tenure (Average)	7.6	4.85	1442	5.9	3.70	65	-28.04***
Fund Age	19.2	11.68	1717	17.9	8.74	71	- 8.84***
Surviving Funds [0,1]	75.2%	0.43	1717	83.1%	0.38	71	14.87***

Table 2: Mixed-Effects GLM Panel Regression (2010 – 2017)

Ln Sortino Ratio		**(1)** Coefficients (Robust SE)	**(2)** Coefficients (Robust SE)
Socially Conscious Mandate [0,1]	CRE	0.015	0.192***
		(0.0308)	(0.0494)
Surviving Funds [0,1]	CRE	0.077	0.079
		(0.0618)	(0.0617)
SCM [1] × Surviving Funds [1]	CRE		-0.184**
			(0.0581)
Manager Tenure (Average)	CRE	0.004**	0.004**
		(0.0014)	(0.0014)
Fund Age	CRE	0.001**	0.001**
		(0.0005)	(0.0005)
Portfolio ESG Score	CRE	-0.007***	-0.007***
		(0.0012)	(0.0012)
Expense Ratio (Annual)	FE	0.041	0.041
		(0.0785)	(0.0785)
Ln Fund Size	FE	0.071***	0.071***
		(0.0096)	(0.0096)
Seasonality (Quarters 2 to 4) Years (2011 to 2017)	~ Similar results for both regression models~		
Intercept	FE	3.027**	3.049**
		(0.9505)	(0.9479)
N		1408 funds	1408 funds
T		96 months	96 months
Wald Chi^2		22671.9	22752.7
P-Value		0.0000	0.0000