

## **Do Socially Responsible Mutual Funds Measure Up?**

C. Edward Chang, James Philpot and George S. Swales, Jr.

### **Introduction**

Domini Social Equity Fund, the oldest and largest fund screening prospective investments for social and environmental reasons, announced in May 2006 that the fund would switch from a passive indexing to active management strategy (Jaffe, 2006). “For the last six years, it has been difficult to get stellar performance using the index strategy,” said Amy Domini, head of the company running the world’s largest social investment fund. The lagging performance pushed Domini to make a change.

This paper examines characteristics, risk and performance measures of all available socially responsible funds (hereafter SRFs) in the U.S. mutual fund industry. In this study, SRFs include actively-managed funds and index funds. The two issues to be addressed are: (1) Do SRFs as a whole perform as well as the average of all mutual funds in their respective categories? and (2) Do actively-managed SRFs outperform index SRFs?

### **Literature Review**

Socially responsible funds invest according to non-economic guidelines. Investments are made based on issues such as environmental responsibility, human rights, or religious views. Some of these funds avoid making investments in companies involved in promoting alcohol, tobacco, gambling, or in the defense industry. Proponents (Camejo, 2002; Harrington, 1992) of such funds believe it is possible to “do well” as investors, while also “doing good.” They suggest that socially responsible investing may produce higher risk-adjusted portfolio returns than merely using all available stocks in the equity universe (Guerard, 1997a, 1997b).

Opponents argue that the pursuit of a social agenda in the capital market may require a financial sacrifice. At the firm level, complying with social criteria increases operating costs and can put a firm at a disadvantage relative to non-complying rivals (Aupperle, Carroll, and Harfield, 1985; McGuire, Sundgren, and Schneeweis, 1988; Ullmann, 1985). At the portfolio level, not only are SRFs selecting firms that likely have higher operating costs, but they are also limiting their pool of available investments. Confined to a smaller subset of investment choices, SRFs may carry substantial sector biases, thus increasing nonsystematic risk (Kurtz and DiBartolomeo, 1996).

Academic researchers have compared the financial performance of SRFs to other funds that do not screen their holdings based on social criteria. Most studies (notably Asmundson and Foerster, 2001; Bello, 2005; Corson and Van Dyck, 1992; Diltz, 1995;

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Goldreyer, Ahmed, and Diltz, 1999; Hamilton, Jo, and Statman, 1993; Schroder, 2004; Statman, 2000) state that social screening neither helps nor hurts portfolio performance. Investors can expect to lose nothing by investing in SRFs. Other studies state SRFs' performance is relatively poor because they tend to shun large-cap stocks and, therefore, overweight riskier small-cap stocks (Haslem, 2003, p. 218).

In a detailed study, Plantinga, Scholtens and Brunia (2002) conclude that investors could have pursued passive investing, based on broad SRI benchmarks, without sacrificing returns achievable on diversified portfolios in the same types of securities. Their article also cites earlier research efforts, which generally conclude the returns of socially responsible investment portfolios are not much different from those of comparable investments.

### **Data and Methodology**

This study makes use of all available SRFs in the U.S. mutual fund industry for as long as 15-year time horizon. SRFs, with at least three-year data available on June 30, 2006, were used. All data of individual funds were from Morningstar, and category average data were from Yahoo! Finance. Table I shows that of 167 SRFs found in this search, 14 are index funds and 153 are actively-managed funds. All index SRFs are in domestic stock categories – five in large blend, six in large growth, two in large value, and one in mid-cap growth. Actively-managed SRFs are in eleven (nine domestic and two international) stock categories and five (four in taxable and one in tax-free) bond categories. For meaningful comparisons, funds with matched period (three-, five-, ten- and fifteen-year) and Morningstar categories will be paired up and compared. This “matching” procedure applies to both SRFs vs. the average of all mutual funds and actively-managed SRFs vs. index SRFs.

### **Results**

Expense ratios and annual turnover rates are shown in Table II. SRFs as a whole do not appear to have significantly different expense ratios (1.28% vs. 1.31%) or turnover rates (82.90% vs. 93.28%) from those found for the average mutual fund. Only SRFs in the international-stock categories exhibit significantly lower (46.61% vs. 72.84%) turnover rates than the category average. SRFs in international-stock categories exhibit insignificantly higher (1.76% vs. 1.62%) expense ratios than the category average. SRFs in intermediate-term bond and short-term bond categories exhibit insignificantly higher turnover rates than the category average (216.80% vs. 211.14% and 232.17% vs. 118.03%, respectively). Actively-managed SRFs, as a whole, exhibit insignificantly higher (1.42% vs. 1.22%) expense ratios, but significantly higher (72.24% vs. 47.48%) turnover rates than index SRFs.

Morningstar's proprietary return, risk and star (or risk-adjusted return) ratings are shown in Table III. Morningstar rates mutual funds from one to five stars based on how well they have performed (after adjusting for risk and accounting for sales charges) in comparison to similar funds. Within each Morningstar category, the top 10% of funds receive five stars, the next 22.5% four stars, the middle 35% three stars, the next 22.5% two stars, and the bottom 10% receive one star. Funds are rated for up to three time periods (three-, five-, and ten-years) and

these ratings are combined to produce an overall rating. Return and risk ratings are done in the same manner.

Using overall ratings, this study finds SRFs as a whole exhibit significantly lower return (2.79), and insignificantly lower risk (2.87) and risk-adjusted return (2.82) ratings than the category average (3.00). SRFs in bond fund categories, with the exception of high-yield bonds, tend to exhibit insignificantly higher return (3.03), risk (3.35) and risk-adjusted return (3.06) ratings than the category average. Actively-managed SRFs as a whole exhibit insignificantly higher return (2.80 vs. 2.59), risk (2.82 vs. 2.61), and risk-adjusted return (2.93 vs. 2.63) ratings than index SRFs. Actively-managed SRFs in the large blend category, however, exhibit lower return (2.88 vs. 3.20), risk (2.46 vs. 2.60), and risk-adjusted return (2.96 vs. 3.20) ratings than their counterpart index SRFs, contrary to what Domini may have anticipated.

Return plus/minus category average (compared with the mean) over the three-, five-, ten-, and fifteen-year period ending on June 30, 2006 are shown in Table IV. Our results find SRFs, as a whole, have mostly significantly lower return than the category average, confirming what we have found in Table III. Actively-managed SRFs, as a whole, exhibit insignificantly higher returns than index SRFs over the three-year (-0.65% vs. -0.82%) and five-year (-0.49% vs. -0.61%) periods. An exception, again, is that actively-managed SRFs in the large blend category exhibit mostly lower returns than their counterpart index SRFs.

Table V shows results of standard deviations (stand-alone risk) calculations over the same three-, five-, and ten-year period ending on June 30, 2006. SRFs, as a whole, exhibit lower standard deviations than the category average, confirming what we have found in Table III. Our results are different from what Kurtz and DiBartolomeo found because there weren't that many SRFs before 1996. Actively-managed SRFs, as a whole, exhibit higher standard deviations than index SRFs over the three-year (9.85% vs. 9.15%, significantly) and five-year (14.53% vs. 14.26%, insignificantly) periods. Actively-managed SRFs in the large blend category exhibit lower (14.07% vs. 16.50) standard deviations than their counterpart index SRFs.

### Conclusion

Socially responsible investing accounts for a small subset of the whole investment community. The authors of this study find SRFs, as a whole, when compared with the average of all mutual funds in the same category, exhibit LOWER measures in most categories: expense ratios, annual turnover rates, return measures, risk measures, and risk-adjusted return measures. "Do good" SRFs, with the exception of some bond categories, did not perform as well as other mutual funds in their own categories over the past fifteen years.

Actively-managed SRFs as a whole, compared with index SRFs, appear to exhibit mostly higher measures: expense ratios, annual turnover rates, return measures, risk measures, and risk-adjusted return measures over the three- and five-year periods. Actively-managed SRFs in the large blend category exhibit lower return, risk, and risk-adjusted measures than their counterpart index SRFs. If data of the past fifteen years were any guide for the future, Ms. Amy Domini may have to be disappointed.

Table I  
 Numbers of Available Socially Responsible Funds (with at least three-year data) as of June 30, 2006

Morningstar Category	All SRFs				Actively-Managed SRFs				Index SRFs			
	3-Year	5-Year	10-Year	15-Year	3-Year	5-Year	10-Year	15-Year	3-Year	5-Year	10-Year	15-Year
Domestic Stock Funds												
Large Blend	29	24	10	1	24	22	9	1	5	2	1	
Large Growth	38	33	11	4	32	28	11	4	6	5		
Large Value	10	5	3	1	8	3	3	1	2	2		
Mid-Cap Blend	3	3	3	3	3	3	3	3				
Mid-Cap Growth	8	8	3		7	7	3		1	1		
Small Blend	6	3			6	3						
Small Growth	4	4	1		4	4	1					
Conservative Allocation	3	1			3	1						
Moderate Allocation	14	8	5	2	14	8	5	2				
International Stock Funds												
Foreign Large Blend	9	6	2		9	6	2					
World Stock	16	14	3	1	16	14	3	1				
Taxable Bond Funds												
Long-Term Bond	4	1	1		4	1	1					
Intermediate-Term Bond	15	12	5	2	15	12	5	2				
Short-Term Bond	6	3			6	3						
High-Yield Bond	1	1			1	1						
Tax-Free Bond Funds												
Muni California Interm/Short	1	1	1		1	1	1					
Total Number of Funds	167	127	48	14	153	117	47	14	14	10	1	

SRFs: Socially Responsible Funds

Note: Shaded cells are to be used in Panel B for matched comparisons between actively-managed SRFs and index SRFs.

Table II  
Expense Ratio (%) and Annual Turnover (%)

## Panel A: All SRFs vs. Average of All Mutual Funds

Morningstar Category	Expense Ratio		Annual Turnover	
	SRFs	Average	SRFs	Average
<b>Domestic Stock Funds</b>				
Large Blend	1.14	1.19	34.34	71.12
Large Growth	1.37	1.47	60.63	95.85
Large Value	1.09	1.36	44.90	60.72
Mid-Cap Blend	1.15	1.42	32.00	99.70
Mid-Cap Growth	1.92	1.58	131.38	111.94
Small Blend	1.78	1.47	133.00	81.31
Small Growth	1.54	1.71	136.25	119.41
Conservative Allocation	0.81	1.18	15.33	57.31
Moderate Allocation	1.45	1.19	51.93	73.22
<b>International Stock Funds</b>				
Foreign Large Blend	1.78	1.56	47.78	76.30
World Stock	1.73	1.68	45.44	69.37
<b>Taxable Bond Funds</b>				
Long-Term Bond	0.83	1.01	66.50	129.79
Intermediate-Term Bond	1.04	1.04	216.80	211.14
Short-Term Bond	0.70	0.99	232.17	118.03
High-Yield Bond	1.50	1.27	65.00	87.70
<b>Tax-Free Bond Funds</b>				
Muni California Interm/Short	0.68	0.90	13.00	29.58
<b>Averages</b>				
Domestic-Stock Funds	1.36	1.40	71.08	85.62
T-test (probability)	0.352609044		0.137450066	
International-Stock Funds	1.76	1.62	46.61	72.84
T-test (probability)	0.178865188		0.027785123**	
Bond Funds	0.95	1.04	118.69	115.25
T-test (probability)	0.190810957		0.456799337	
All Categories	1.28	1.31	82.90	93.28
T-test (probability)	0.300659061		0.185905172	

## Panel B: Actively-Managed SRFs vs. Index SRFs

Morningstar Category	Expense Ratio		Annual Turnover	
	AMSRFs	ISRFs	AMSRFs	ISRFs
Large Blend	1.28	0.48	40.13	6.60
Large Growth	1.47	0.83	69.50	13.33
Large Value	1.03	1.32	49.88	25.00
Mid-Cap Growth	1.88	2.25	129.43	145.00
Average	1.42	1.22	72.24	47.48
T-test (probability)	0.284214624		0.098428157*	

\*\* Significant at the 0.05 level.

\* Significant at the 0.10 level.

Table III  
Morningstar Return, Risk and Star Ratings

## Panel A: All SRFs vs. Average of All Mutual Funds

Morningstar Category	Return Rating		Risk Rating		Star Rating	
	SRFs	Average	SRFs	Average	SRFs	Average
<b>Domestic Stock Funds</b>						
Large Blend	2.93	3.00	2.48	3.00	3.00	3.00
Large Growth	3.18	3.00	2.82	3.00	3.34	3.00
Large Value	2.80	3.00	3.10	3.00	2.90	3.00
Mid-Cap Blend	2.67	3.00	2.67	3.00	2.67	3.00
Mid-Cap Growth	2.13	3.00	2.75	3.00	2.25	3.00
Small Blend	1.50	3.00	2.50	3.00	1.50	3.00
Small Growth	3.50	3.00	3.25	3.00	3.25	3.00
Conservative Allocation	3.00	3.00	1.67	3.00	3.00	3.00
Moderate Allocation	2.64	3.00	2.86	3.00	2.57	3.00
<b>International Stock Funds</b>						
Foreign Large Blend	2.44	3.00	2.56	3.00	2.44	3.00
World Stock	2.75	3.00	2.56	3.00	2.81	3.00
<b>Taxable Bond Funds</b>						
Long-Term Bond	3.75	3.00	3.50	3.00	3.75	3.00
Intermediate-Term Bond	3.40	3.00	3.27	3.00	3.40	3.00
Short-Term Bond	3.00	3.00	3.00	3.00	3.17	3.00
High-Yield Bond	2.00	3.00	2.00	3.00	2.00	3.00
<b>Tax-Free Bond Funds</b>						
Muni California Interm/Short	3.00	3.00	5.00	3.00	3.00	3.00
<b>Averages</b>						
Domestic-Stock Funds	2.71	3.00	2.68	3.00	2.72	3.00
T-test (probability)	0.086620955*		0.032996879**		0.089008733*	
International-Stock Funds	2.60	3.00	2.56	3.00	2.63	3.00
T-test (probability)	0.116348059		0.000000001***		0.145881442	
Bond Funds	3.03	3.00	3.35	3.00	3.06	3.00
T-test (probability)	0.461699050		0.252775682		0.419213750	
All Categories	2.79	3.00	2.87	3.00	2.82	3.00
T-test (probability)	0.085875867*		0.251515028		0.107150962	

## Panel B: Actively-Managed SRFs vs. Index SRFs

Morningstar Category	Return Rating		Risk Rating		Star Rating	
	AMSRFs	ISRFs	AMSRFs	ISRFs	AMSRFs	ISRFs
Large Blend	2.88	3.20	2.46	2.60	2.96	3.20
Large Growth	3.19	3.17	2.81	2.83	3.34	3.33
Large Value	3.00	2.00	3.13	3.00	3.13	2.00
Mid-Cap Growth	2.14	2.00	2.86	2.00	2.29	2.00
Average	2.80	2.59	2.82	2.61	2.93	2.63
T-test (probability)	0.254395772		0.211666792		0.195753864	

\*\*\* Significant at the 0.01 level.    \*\* Significant at the 0.05 level.    \* Significant at the 0.10 level.

Table IV  
Return Plus/Minus Category Average (%)

Panel A: All SRFs vs. Category Average (Return Plus/Minus = 0)

Morningstar Category	3-Year	5-Year	10-Year	15-Year
<b>Domestic Stock Funds</b>				
Large Blend	-0.85	0.31	-0.31	-2.63
Large Growth	0.40	1.02	1.69	-0.44
Large Value	0.52	-1.12	-0.50	-1.49
Mid-Cap Blend	-2.35	-1.50	0.56	-1.78
Mid-Cap Growth	-2.79	-2.78	-2.44	
Small Blend	-6.20	-8.17		
Small Growth	0.86	0.64	-4.01	
Conservative Allocation	-0.36	0.10		
Moderate Allocation	-0.61	-1.70	-1.02	-1.07
<b>International Stock Funds</b>				
Foreign Large Blend	-1.47	-1.66	-1.36	
World Stock	-1.14	-1.16	2.02	0.74
<b>Taxable Bond Funds</b>				
Long-Term Bond	0.72	-0.89	-0.77	
Intermediate-Term Bond	0.51	0.22	0.28	0.79
Short-Term Bond	-0.28	0.51		
High-Yield Bond	-1.21	-1.39		
<b>Tax-Free Bond Funds</b>				
Muni California Interm/Short	-0.49	0.19	0.66	
<b>Averages</b>				
Domestic-Stock Funds	-1.26	-1.47	-0.86	-1.48
T-test (probability)	0.064*	0.078*	0.136	0.008***
International-Stock Funds	-1.31	-1.41	0.33	0.74
T-test (probability)	0.040**	0.056*	0.439	0.001***
Bond Funds	-0.15	-0.27	0.06	0.79
T-test (probability)	0.345	0.250	0.453	0.001***
All Categories	-0.92	-1.09	-0.43	-0.84
T-test (probability)	0.027**	0.032**	0.197	0.067*

Panel B: Actively-Managed SRFs vs. Index SRFs

Morningstar Category	3-Year		5-Year		10-Year	
	AMSRFs	ISRFs	AMSRFs	ISRFs	AMSRFs	ISRFs
Large Blend	-0.96	-0.33	0.32	0.18	-0.36	0.13
Large Growth	0.57	-0.46	1.09	0.66		
Large Value	0.62	0.10	-0.31	-2.35		
Mid-Cap Growth	-2.82	-2.59	-3.05	-0.94		
Average	-0.65	-0.82	-0.49	-0.61	-0.36	0.13
T-test (probability)	0.337280124		0.446467652			

\*\*\* Significant at the 0.01 level. \*\* Significant at the 0.05 level. \* Significant at the 0.10 level.

Table V  
Standard Deviation (%)

## Panel A: All SRFs vs. Average of All Mutual Funds

Morningstar Category	3-Year		5-Year		10-Year	
	SRFs	Average	SRFs	Average	SRFs	Average
<b>Domestic Stock Funds</b>						
Large Blend	7.83	8.32	12.77	13.56	14.29	15.57
Large Growth	9.70	10.38	14.76	15.77	18.39	19.55
Large Value	8.41	8.15	13.72	13.41	14.09	14.48
Mid-Cap Blend	9.66	11.09	14.53	15.82	16.76	18.76
Mid-Cap Growth	13.01	13.07	17.13	17.88	21.61	23.92
Small Blend	13.41	13.72	17.81	17.57		
Small Growth	17.55	15.81	22.43	20.56	15.31	25.72
Conservative Allocation	2.82	3.85	4.72	5.41		
Moderate Allocation	6.07	5.88	9.82	8.84	13.37	10.36
<b>International Stock Funds</b>						
Foreign Large Blend	10.43	10.85	14.09	14.92	15.78	16.27
World Stock	9.88	10.52	13.86	14.98	17.08	17.31
<b>Taxable Bond Funds</b>						
Long-Term Bond	7.29	5.88	4.22	6.25	3.72	6.60
Intermediate-Term Bond	3.69	3.87	3.96	3.98	3.89	3.75
Short-Term Bond	1.88	1.83	2.59	2.09		
High-Yield Bond	3.44	4.31	5.33	7.11		
<b>Tax-Free Bond Funds</b>						
Muni California Interm/Short	3.76	3.35	4.62	3.65	4.24	3.22
<b>Averages</b>						
Domestic-Stock Funds	9.83	10.03	14.19	14.31	16.26	18.34
T-test (probability)	0.263747517		0.364510769		0.113134656	
International-Stock Funds	10.16	10.69	13.98	14.95	16.43	16.79
T-test (probability)	0.065139511*		0.046993958**		0.110306746	
Bond Funds	4.01	3.85	4.14	4.62	3.95	4.52
T-test (probability)	0.342249094		0.240084963		0.337658387	
All Categories	8.05	8.18	11.02	11.36	13.21	14.63
T-test (probability)	0.272873044		0.113818778		0.079288949*	

## Panel B: Actively-Managed SRFs vs. Index SRFs

Morningstar Category	3-Year		5-Year		10-Year	
	AMSRFs	ISRFs	AMSRFs	ISRFs	AMSRFs	ISRFs
Large Blend	7.81	7.92	12.68	13.77	14.07	16.50
Large Growth	9.85	8.89	14.65	15.36		
Large Value	8.59	7.69	13.10	14.64		
Mid-Cap Growth	13.15	12.08	17.68	13.28		
Average	9.85	9.15	14.53	14.26	14.07	16.50
T-test (probability)	0.041118398**		0.430424416			

\*\*\* Significant at the 0.01 level.    \*\* Significant at the 0.05 level.    \* Significant at the 0.10 level.

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