The Cost of Being Good

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Abstract

This paper examines the performance of U.S. equities through the use of socially responsible investment screens. We extend the socially responsible investing literature by examining a broad study of social screens. We examine the returns and risk-adjusted returns to investing in socially responsible investment portfolios using twenty social screens from KLD. The approach introduces a simple model of asset returns based on a utility function that incorporates social goals. We are also the first to examine the persistence in performance of SRI screens using Jensen's alpha and conditional alphas.

JEL:

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1. Introduction

This paper examines the performance of U.S. equities through the use of socially responsible investment screens. Socially responsible investing (SRI) is reflected in the attitudes of the investor to apply responsible social goals to their investment portfolio. A prime example in the 1980s was divestment of public pension funds and endowment funds from South Africa in response to the apartheid regime. There were three main responses to the movement. First, corporate pension plans and others argued that divestment was fiduciarily irresponsible since it was not a goal solely for the benefit of the pension plan beneficiaries and represented a constrained investment opportunity set. A second approach was to divest from firms unwilling to adopt the Sullivan principles.[1] This was an intermediate step in the scheme of SRI in that investors pressured firms to adopt the principles. The third approach was divestment from any firm involved in South Africa.

Previous literature has examined screens and socially responsible investing in both equity and bonds. Angel and Rivoli (1997) find the reluctance of investors to invest in certain firms can lead to increases in the firm's cost of equity; however the percentage of investors unwilling to invest has to be relatively large for the effect to be significant. Feldman, Soyka, and Ameer (1997) analyze the impact of the firm's environmental management system on stock prices and find that improvements result, primarily, from a decrease in risk.

Research in the area of investing has led to inconclusive results. Kurtz (1997) finds that the universe of SRI stocks does not appear to underperform the market but there are costs to diversification and information effects. Guerard (1997) finds that returns for socially screened universe do not differ from the unscreened universe but using multiple screens improves results. Statman (2000) finds that the Domini Social Index outperformed the S&P 500 and that

[1]Leon Sullivan created a voluntary code of conduct in 1977 for corporations doing business in South Africa. (see Forbes, July 9, 1984, page 168).

socially responsible mutual funds did better than conventional funds, but the results are not statistically significant. Finally, Derwall and Koedijk (2005) find positive, but insignificant, differences between the performance of SRI funds and conventional funds and evidence of time-variation in performance over business cycles.

We extend the socially responsible investing literature by examining a broad study of social screens. Our initial approach is to examine the costs and benefits from the third or extreme approach of socially responsible investing. We examine the returns and risk-adjusted returns to investing in socially responsible investment portfolios using twenty social screens from KLD. The approach introduces a simple model of asset returns based on a utility function that incorporates social goals. We are also the first to examine the persistence in performance of SRI screens using Jensen's alpha and conditional alphas.

The remainder of the paper is organized as follows. Section 2 presents the methodology. Section 3 describes the data used and Section 4 presents the results of our analysis. Finally, Section 5 concludes the paper.

2. Methodology

There are a number of ways to approach social investment screens. It is evident from the mutual funds available that some combination or variation of three approaches is taken. As discussed above relative to South Africa, our approach for the analysis is the third or most clear cut approach. The investor is either fully in favor or against a particular issue. In this case, a firm must pass a particular screen for an investor to include it in the portfolio. One way of interpretating such an investment policy is that there is an infinite cost function attached to the issue belief. Any other investment scheme must attach a less than infinite cost and results in some form of underweighting of a firm in the portfolio.

2.1 Asset Pricing Model of SRI and Econometric Issues

In this initial analysis, a simple model of social investment is sufficient. An investor is assumed to have an objective function that maximizes a combination of wealth and social good. Investors may have homogeneous beliefs for all firm returns and infinite costs on any one social screen. The model supports an equally weighted portfolio on any screen given equal returns and no short sales. Zero investment portfolios are equivalent in the model to taking a long position in the positive screened equal weighted portfolio and taking a short position in the negatively screened equally weighted portfolio.

The imbalances in the number of securities in each portfolio are ignored in the initial analysis. This may dramatically impact the statistical significance of any results since some portfolios will not be diversified. Questions arise with respect to the correlation of the unsystematic risks and observed returns. Future research may include a matched firm analysis or a best in industry investment portfolio. These techniques, however, move away from our simple model of infinite costs associated with the social screens.

The model is in line with the common assumption that adding a non-wealth criterion to the investment decision comes at a cost to the investor. This cost to socially responsible investing is also associated with a constrained optimization of the investment set where the constrained efficient frontier lies on the interior or tangent to the unconstrained frontier.

2.2 Performance Measures

Four groups of equal weighted portfolios of screened categories are created from the KLD data. The 20 screens (see the appendix) are first split into strength and concern groups. Within in each screen the total of all subcategories is taken as the measure of the screen. The next step is to split the strength and concern groups into two more groups. Positive strength screens are all firms that have a positive number of strengths; measure of the screen is greater than zero. Neutral strengths firms have no strengths for a given screen; measure of the screen

equals zero. Negative portfolios are concern screens with greater than zero measure. The equal weighted portfolios are reconstituted annually based on inclusion in the S&P 500 and the KLD data on screens.

The next step in the analysis is to create risk-adjusted performance measures. Both a Jensen's alpha and a conditional alpha are calculated for each of the 40 equally weighted portfolios. The dynamic or conditional alpha is based on Christopherson et al. (1998). Both the conditional and unconditional models are estimated using 36 months of past returns.

$$
\begin{aligned}
r_{pt+1} &= a_{0p} + A_p' z_t + b_{0pb} r_{bt+1} + B_{pb}' z_t r_{bt+1} + u_{pt+1} \\
\hat{\beta}_{pb}(Z_t) &= \hat{b}_{0pb} + \hat{B}_{pb}' z_t \\
z_t &= Z_t - E(Z) \\
\hat{\alpha} &= \hat{a}_{0p} + \hat{A}_p' z_t
\end{aligned}
\qquad (1)
$$

Where r_p is the return of the account portfolio in excess of the risk-free rate. Z is a vector of the four demeaned 36-month rolling lagged information variables: dividend yield, detrended bill rate (subtracting the 12 month moving average), January dummy, and term spread for the two conditional pricing models. Ferson, Sarkissian, and Simin (2003) find that it is useful to use demeaned lagged variables in conditional studies. r_b is a vector of factor returns with $r_{mf} = R_M - R_f$. R_M is the return of the S&P500 for a one factor model. R_f is the return of U.S. Treasury bills. u_t is the error term and is assumed to be distributed $(0, \sigma^2)$ for each portfolio. There may be cross-sectional heteroskedasticity across portfolios.

The dynamic alphas are time varying conditional alphas based on the current lagged information variables and the coefficients from the regression. The information variables may induce autocorrelation. This adds to the errors-in-variables problem in the dynamic alphas since they are estimated.

2.2.1 Performance Persistence Methodology

The final step in the analysis is to examine persistence or predictability in performance. Persistence is measured by a cross-sectional regression technique similar to one used by Christopherson et al. (1998) for the past 36 month alphas on future returns.

$$r_{p(t,t+\tau)} = \gamma_{0,t,\tau} + \gamma_{1,t,\tau}\alpha_{pt}^{CAPM} + u_{p(t,t+\tau)}$$
$$r_{p(t,t+\tau)} = \gamma_{0,t,\tau} + \gamma_{1,t,\tau}\alpha_{pt}^{CCAPM} + u_{p(t,t+\tau)} \qquad (2)$$

for horizons, τ = 1, 3, 6, 12, 18, 24, and 36 months.

The cross-sectional regression coefficients for each month are averaged over time similar to Fama and MacBeth (1973). The cross-sectional regression is a weighted-least squares approach where the weights are the residuals from equation 1. The result is an appraisal ratio, alpha divided by its standard error, based on Brown et al. (1992) to compensate for survivorship bias due to differences in volatility. If spurious persistence is created by differences in volatility, Brown et al. find that the use of an appraisal ratio compensates for the bias.

Two related statistical issues arise in the chosen methodology. The main issue of bias in predictive regression is an errors-in-variables problem. The predictive regression is a cross-sectional regression of future returns on past dynamic alphas. The dynamic alphas are estimated from a regression of the conditional model (equation 1). Since the dynamic alphas are estimated, they are measured with error. Thus, the errors-in-variables problem arises. The other related problem is the bias induced by regressing on lagged variables that are highly autocorrelated over time, in the construction of the dynamic alphas. This finite sample problem is studied by Stambaugh (1999) and Torous and Yan (1999), among others. Shanken (1992)

introduces a further refinement for correcting for the errors-in-variables problem. Shanken finds Fama and Macbeth's procedure underestimates the standard errors of the mean cross sectional regression coefficient. Further support for our method is found in Kandel and Stambaugh (1995) and Roll and Ross (1994). The added benefit of the WLS approach, as mentioned in Christopherson et al. (1998), is that the weights are equivalent to using an appraisal ratio which Brown et al. (1992) suggest as an adjustment for survivorship bias when dead accounts and survivors have differing variances.

First, the dynamic alpha coefficients are estimated from a regression at each time period for each account for the past 36 months. The dynamic alphas are calculated using the coefficient estimates and the contemporaneous information variables (see equation 1). As estimates, the dynamic alphas are measured with error. If these errors are independent of the actual future returns and of the "true" alphas, they produce an attenuation bias in the second stage, cross-sectional regressions. This means that the estimates of γ_1 are closer to zero than the true values, and are likely to understate the amount of persistence as a result. Also, the errors in the estimated alphas are most likely cross-sectionally correlated. The test for significance of the slope coefficient on the dynamic alpha is the Fama and Macbeth t-statistic, which accounts for cross-sectional correlation. There may also be serial correlation in the measurement errors of the alphas. Christopherson et al. (1998) point out that by using excess returns regressed cross-sectionally on dynamic alphas, instead of alphas on alphas, avoids spurious persistence due to autocorrelation in the errors of the dynamic alphas.

3. Data

There are several socially responsible data bases available; two of which are KLD and Investor Responsibility Research Center (IRRC). The data for this study comes from KLD. KLD classifies 112 subcategories or screening questions for the period 1991-2004. The 112

subcategories are summarized in 20 main categories of socially responsible screens. Most of the category screens are represented in positive and negative screens of strengths versus concerns. The appendix lists the main categories along with the subcategory aggregation.

The majority of screens cover the period from 1991 to 2004 for stocks in the S&P 500. In the early part of this century, KLD has added more screens and expanded the coverage from the S&P 500 to the Russell 1000 and then to the Russell 3000 stocks. For this analysis we restrict the stocks to the S&P 500.

3.1. Summary statistics

Table 1 compares the mean monthly returns of equally weighted portfolios of SRI screened stocks to equally weighted portfolios of two benchmarks, DSI 400 and S&P 500. The DSI 400 is a socially responsible mutual fund based on the KLD screens. Both benchmarks are available both as a mutual funds and exchange traded funds (ETFs). Given our investment criteria we examine both our benchmarks as equally weighted portfolios of their constituent investments.

The returns of all the portfolios are similar over the 168 months; approximately 1.3% per month. This is in line with most previous studies that find insignificant differences among SRI and non-SRI funds. For comparison, we examine the positive and neutral screens for both concerns and strengths. Again, the differences are insignificant.

4. Preliminary Results

We begin our analysis under the hypothesis that there is no difference among screened positive and negative screened portfolios and the unscreened S&P 500 firms' returns. In examining the summary statistics, the null hypothesis cannot be rejected (see Table 1). Most of the returns for the equally weighted portfolios with a full time period of returns are about 1.3% per month as are the two benchmark portfolios. The exceptions are portfolios with fewer than 10 firms on average--Alcohol Concerns Negative, Gaming Concerns Negative, and Tobacco

Concerns Negative. These are obviously not well diversified portfolios. The other exceptions are screened portfolios that were added this century--Corporate Governance, Firearms, and Human Rights--and have fewer than half the number of observations. As an additional test, mean monthly return differences of negative and neutral, positive and neutral, and positive and negative screens are examined. Again, we cannot reject the null hypothesis of no differences.

The next step in the analysis is to examine the market sensitivities of the screened portfolios (see Table 2). When unconditional alpha or Jensen's alphas are examined, most are significantly different from zero and positive. Only four alphas are not significantly different from zero. This may be an artifact of using equal weighted portfolios against a value-weighted benchmark since both of the equal weighted benchmarks also have positive and significant alphas. The t-statistics for the unconditional betas are based on being different from one. Again, most betas are significantly different from one. Only five unconditional betas are insignificantly different from one.

The results from the conditional alphas and betas are similar to the unconditional except for degree (see Table 3). The conditional alphas are larger and more significant in general than the unconditional alphas. There are still four alphas that are insignificant. There are fewer betas that are significant, but the benchmark of one for conditional benchmark does not have the same interpretation as that of the unconditional beta. The conditional beta is a function of the public information variables and the market. While the unconditional benchmarks had betas close to one, 0.974 and 0.985 for DSI EW and SP EW, the conditional betas for both benchmarks were lower, 0.577 and 0.765. Future analysis will split out the different sensitivities. When comparing complementary screened portfolios, neutral versus negative and positive versus neutral, no clear pattern is seen in the differences among the alphas and betas.

The final step of the analysis is to examine whether there is persistence in performance. Persistence is measured as the sensitivity, γ_1, of future returns on past alphas, both conditional and unconditional. As a benchmark for the analysis, persistence of individual stock returns in the sample is examined (see Table 4). Only the two and three year returns are significant and represent reversals of performance. Positive unconditional alphas in the past result in future underperformance over two and three year horizons.

In examining the persistence of the EW screened SRI portfolios (see Table 5) we find the unconditional persistence measures are uniformly negative indicating positive alphas lead to future underperformance and negative alphas to future outperformance. Shorter term alphas are insignificant from zero. The conditional gammas are slightly less significant than the pattern in the unconditional regression. The pattern of the conditional sensitivities is positive over the short term and negative over the longer term.

5. Conclusions

We examine the performance of 40 socially responsible investment screens using equally weighted portfolios. There are no significant differences in returns of the individual screens over the period from 1991 to 2004. This includes positive, negative, and neutral screening criteria. While this is in line with findings from previous papers, the analysis here is the first to examine a broad list of individual socially responsible screening categories. In extending the analysis to conditional and unconditional measures of risk-adjusted performance, we find over the period that all equally weighted portfolios have a positive risk-adjusted performance. This may be indicative of a size effect within the S&P 500 firms over this time period.

Given the preliminary status of the research, there are a number of avenues we plan to pursue in the future. The first is to repeat the analysis using value weighted portfolios. This

may further confirm the positive alphas from the equally weighted results being dependent on size factors. We also plan to create combined screened portfolios. The combined portfolios will be along the lines of all positive, all neutral, and all negative screens. The stricter or combined portfolios may highlight differences that the single screens did not.

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Table 3: Summary Statistics for E.W. Portfolio Conditional Alphas & Betas

The table shows the statistics mean and standard deviation for the monthly average alphas of an equal weighted portfolio, R_{pt}, of all positive screens. There were 133 months of data for all of the category screened portfolios.

	Alpha			Beta		from 1
Concerns > 0, Negative	Mean	Std	t-stat	Mean	Std	t-stat
Alcohol	-2.43%	12.24%	-2.29	-3.337	4.404	-11.356
Community	2.53%	11.95%	2.44	0.235	3.094	-2.850
Diversity	3.97%	9.75%	4.70	2.386	3.111	5.138
Employ. Rel.	4.08%	8.61%	5.46	0.732	3.377	-0.916
Environ.	2.28%	11.61%	2.26	0.567	3.335	-1.498
Gaming	-2.04%	24.39%	-0.96	-0.421	6.201	-2.643
Military	6.87%	8.81%	9.00	1.328	3.211	1.177
Nuclear	3.90%	16.96%	2.65	-1.043	4.114	-5.726
Product	1.36%	8.76%	1.79	0.459	2.306	-2.705
Tobacco	5.15%	44.33%	1.34	1.637	6.495	1.131
Concerns = 0, Neutral						
Alcohol	3.98%	7.04%	6.52	0.814	2.480	-0.865
Community	4.00%	6.92%	6.66	0.877	2.464	-0.574
Diversity	4.21%	6.51%	7.45	0.150	2.536	-3.864
Employ. Rel.	3.50%	7.02%	5.76	0.702	2.084	-1.652
Environ.	5.13%	5.94%	9.96	0.741	2.352	-1.270
Gaming	3.87%	6.93%	6.43	0.776	2.444	-1.059
Military	3.46%	7.38%	5.41	0.706	2.464	-1.376
Nuclear	3.88%	7.39%	6.06	0.873	2.494	-0.589
Product	5.19%	7.57%	7.91	0.956	2.720	-0.189
Tobacco	3.92%	6.95%	6.51	0.759	2.485	-1.118
Strengths = 0, Neutral						
Community	2.85%	9.41%	3.49	0.986	2.983	-0.056
Diversity	4.92%	10.58%	5.37	0.693	3.449	-1.026
Employ. Rel.	3.61%	7.41%	5.63	0.534	2.540	-2.117
Environ.	4.60%	7.11%	7.45	0.580	2.323	-2.082
Product	4.33%	7.39%	6.77	0.882	2.461	-0.554
Strengths > 0, Positive						
Community	4.78%	7.26%	7.59	0.144	1.734	-5.692
Diversity	4.25%	4.99%	9.82	1.164	1.788	1.058
Employ. Rel.	3.78%	8.08%	5.40	1.050	2.380	0.244
Environ.	1.10%	9.76%	1.30	1.386	3.478	1.279
Product	1.27%	7.01%	2.08	0.152	3.426	-2.856
DSI EW	3.47%	5.98%	6.70	0.577	2.143	-2.278
SP EW	3.87%	7.02%	6.36	0.765	2.443	-1.111

Table 4: Alpha to Future Return Individual Stocks Persistence

The table shows the statistics mean, standard deviation, and t-statistic for the Fama-Macbeth regressions of future returns, R_{pt}, on past alpha of S&P 500 firms. The horizon, t, is measured in months. N is the number of months.

Horizon	Mean	S.D.	t-stat	N
1	-8.8%	89%	-1.14	132
3	-3.6%	148%	-0.28	130
6	6.8%	226%	0.34	126
12	7.9%	260%	0.33	120
18	-31.0%	282%	-1.17	114
24	-90.7%	290%	-3.25	108
36	-84.1%	341%	-2.42	96

Table 1: Summary Statistics for Equal Weighted Portfolios of SRI Screens

Returns are calculated monthly based on annual screening data from KLD. S&P 500 firms that meet the individual screens are put into equal weighted portfolios. Data covers 1991-2004.

		Returns		# of Firms	Returns		# of Firms		Firms Total	
Category	Months	Mean	S.D.	Mean	Mean	S.D.	Mean		Avg.	
Concerns > 0		NEGATIVE			NEUTRAL	Concerns = 0		Rneu-Rneg		
Alcohol	168	1.10%	4.52%	7.1	1.31%	4.43%	484.7	0.21%	491.8	
Community	168	1.24%	4.78%	42.2	1.32%	4.45%	449.6	0.08%	491.8	
Corp. Gov.	36	1.00%	5.74%	342.2	1.20%	4.51%	148.5	0.20%	490.7	
Diversity	168	1.29%	5.14%	98.9	1.32%	4.23%	392.9	0.03%	491.8	
Employ. Rel.	168	1.24%	4.99%	144.9	1.33%	4.17%	346.9	0.09%	491.8	
Environ.	168	1.10%	4.31%	147.3	1.39%	4.62%	344.6	0.30%	491.8	
Firearms	48	1.05%	7.70%	1.3	0.98%	5.30%	490.9	-0.07%	492.1	
Gaming	168	1.87%	7.00%	6.6	1.30%	4.40%	485.2	-0.56%	491.8	
Human Rights	36	1.30%	5.77%	89.2	1.02%	5.14%	401.6	-0.28%	490.7	
Military	168	1.37%	5.35%	63.2	1.29%	4.35%	428.6	-0.08%	491.8	
Nuclear	168	1.03%	4.41%	30.7	1.33%	4.55%	461.1	0.30%	491.8	
Product	168	1.25%	4.22%	151.8	1.35%	4.63%	340.1	0.11%	491.8	
Tobacco	168	1.71%	8.56%	4.2	1.31%	4.42%	487.6	-0.40%	491.8	
Strengths = 0		NEUTRAL			POSITIVE	Strengths >0		Rpos-Rneu		Rpos-Rneg
Community	168	1.29%	4.62%	335.2	1.34%	4.08%	156.6	0.05%	491.8	0.10%
Corp. Gov.	36	1.07%	5.21%	477.4	1.36%	6.06%	13.3	0.29%	490.7	0.36%
Diversity	168	1.29%	4.62%	271.7	1.37%	4.35%	220.2	0.08%	491.8	0.08%
Employ. Rel.	168	1.32%	4.30%	308.2	1.29%	4.61%	183.6	-0.04%	491.8	0.04%
Environ.	168	1.38%	4.51%	384.3	1.06%	4.36%	107.2	-0.32%	491.5	-0.03%
Human Rights	36	1.08%	5.23%	487.1	0.86%	4.37%	3.7	-0.22%	490.7	-0.44%
Product	168	1.30%	4.38%	419.0	1.36%	4.76%	72.8	0.06%	491.8	0.11%
DSI EW					1.35%	4.33%	242.9		242.9	
SP 500 EW					1.31%	4.41%	491.8		491.8	

Table 2: Summary Statistics for Equal Weighted Portfolio Alphas & Betas of Screens

The table shows average α's and β's from a regression over the past 36 months. The t-statistics for α's are differences from zero and for β's from one.

$$r_{pt+1} = a_{0p} + A_p' z_t + b_{0pb} r_{bt+1} + B_{pb}' z_t r_{bt+1} + u_{pt+1}$$
$$\hat{\beta}_{pb}(Z_t) = \hat{b}_{0pb} + \hat{B}_{pb}' z_t$$
$$z_t = Z_t - E(Z)$$
$$\hat{\alpha} = \hat{a}_{0p} + \hat{A}_p' z_t$$

Negative Portfolio		Alpha			Beta		From 1
Concerns	N	Mean	S.D.	t-stat	Mean	S.D.	t-stat
Alcohol	133	0.08%	0.53%	1.70	0.558	0.383	-13.31
Community	133	0.01%	0.65%	0.22	0.946	0.187	-3.31
Corp. Gov.	36	0.77%	0.59%	7.85	1.331	0.368	5.40
Diversity	133	0.18%	0.54%	3.73	1.102	0.148	7.93
Employ. Rel.	133	0.16%	0.50%	3.63	1.069	0.199	3.99
Environ.	133	0.03%	0.55%	0.59	0.844	0.142	-12.65
Firearms	48	1.80%	1.24%	10.06	0.912	0.343	-1.78
Gaming	133	0.43%	1.26%	3.97	1.186	0.229	9.38
Human Rights	36	1.10%	0.76%	8.73	1.177	0.303	3.52
Military	133	0.24%	0.51%	5.50	1.081	0.107	8.73
Nuclear	133	0.14%	0.48%	3.32	0.517	0.268	-20.79
Product	133	0.15%	0.42%	4.15	0.902	0.135	-8.36
Tobacco	133	0.74%	1.59%	5.35	0.730	0.342	-9.08
Neutral Portfolios							
Concerns							
Alcohol	133	0.22%	0.54%	4.59	0.990	0.093	-1.19
Community	133	0.24%	0.54%	5.12	0.998	0.095	-0.20
Corp. Gov.	36	0.91%	1.21%	4.49	0.761	0.754	-1.90
Diversity	133	0.23%	0.54%	4.84	0.947	0.089	-6.94
Employ. Rel.	133	0.24%	0.56%	4.95	0.938	0.075	-9.59
Environ.	133	0.29%	0.55%	6.02	1.041	0.084	5.60
Firearms	84	0.19%	0.79%	2.20	0.983	0.165	-0.92
Gaming	133	0.21%	0.53%	4.63	0.983	0.094	-2.10
Human Rights	36	0.77%	0.35%	13.26	1.113	0.209	3.24
Military	133	0.20%	0.55%	4.15	0.973	0.097	-3.17
Nuclear	133	0.22%	0.55%	4.62	1.018	0.083	2.45
Product	133	0.26%	0.62%	4.82	1.027	0.099	3.20
Tobacco	133	0.22%	0.54%	4.62	0.988	0.092	-1.54
Strengths							
Community	133	0.20%	0.61%	3.84	1.017	0.103	1.94
Corp. Gov.	36	0.81%	0.41%	11.92	1.119	0.229	3.12
Diversity	133	0.18%	0.72%	2.85	0.993	0.091	-0.85
Employ. Rel.	133	0.21%	0.57%	4.26	0.956	0.097	-5.23
Environ.	133	0.27%	0.56%	5.64	1.012	0.080	1.67
Human Rights	36	0.82%	0.39%	12.75	1.125	0.220	3.43
Product	133	0.21%	0.56%	4.27	0.970	0.097	-3.50

Table 2: Summary Statistics for Equal Weighted Portfolio Alphas & Betas of Screens (contd.)

Positive Portfolio Strengths	N	Alpha Mean	S.D.	t-stat	Beta Mean	S.D.	from 1 t-stat
Community	133	0.21%	0.43%	5.51	0.905	0.134	-8.17
Corp. Gov.	36	1.38%	1.60%	5.16	1.272	0.958	1.70
Diversity	133	0.28%	0.39%	8.13	0.982	0.100	-2.11
Employ. Rel.	133	0.21%	0.53%	4.70	1.021	0.108	2.20
Environ.	133	0.02%	0.46%	0.39	0.891	0.150	-8.34
Human Rights	36	1.64%	2.75%	3.56	0.756	1.336	-1.09
Product	133	0.25%	0.45%	6.45	1.065	0.084	8.99
DSI	133	0.26%	0.50%	5.94	0.974	0.072	-4.22
SP EW	133	0.21%	0.54%	4.59	0.985	0.093	-1.85

Table 5: Regressions of Future Returns on Past Alphas for EW Category Portfolios

The table shows average γ_1 from a regression of future returns over τ periods (1-36 months) over past 36 month dynamic alphas from January 1991-December 2004. The t-statistics are the Fama-MacBeth t-statistics based on the time series average of the γ_1's from January 1994-December 2004**.** The t-statistics have NOT been adjusted for τ-1 Newey-West lags. Horizon is in months.

$$r_{p(t,t+\tau)} = \gamma_{0,t,\tau} + \gamma_{1,t,\tau}\alpha_{pt}^{CAPM} + u_{p(t,t+\tau)}$$

$$r_{p(t,t+\tau)} = \gamma_{0,t,\tau} + \gamma_{1,t,\tau}\alpha_{pt}^{CCAPM} + u_{p(t,t+\tau)}$$

	CCAPM				CAPM		
Horizon τ	Mean γ_1	SD	t-stat	obs.	Mean γ_1	SD	t-stat
1	0.025	0.143	1.98	132	-0.117	4.500	-0.30
3	0.060	0.312	2.19	130	-1.351	11.381	-1.35
6	0.071	0.507	1.58	126	-3.626	18.949	-2.15
12	-0.015	0.895	-0.18	120	-5.034	21.319	-2.59
18	-0.160	1.241	-1.38	114	-5.134	21.355	-2.57
24	-0.279	1.401	-2.07	108	-7.555	22.050	-3.56
36	-0.431	1.449	-2.92	96	-3.236	25.891	-1.22

Appendix

Qualitative Screen	Strengths	Weaknesses
Community	Generous giving	Investment controversies
	Innovative giving	Negative economic impact
	Support for housing	Indigenous peoples relations
	Support for education	Other concerns
	Indigenous peoples relations	
	Non-US charitable giving	
	Other strength	
Corp. Governance	Limited compensation	High compensation
	Ownership strength	Tax disputes
	Other strength	Ownership concern
		Other concern
Diversity	CEO (woman or minority)	Controversies
	Promotion	Non-representation
	Board of directors	Other concern
	Family benefits	
	Women/minority contracting	
	Employment of the disabled	
	Progressive gay/lesbian policies	
	Other strength	
Employee relations	Strong union relations	Poor union relations
	No-layoff policy	Health and safety concern
	Cash profit sharing	Workforce reductions
	Employee involvement	Pension/benefits concern
	Strong retirement benefits	
	Health and safety strength	
	Other strength	
Environment	Beneficial products services	Hazardous waste
	Pollution prevention	Regulatory problems
	Recycling	Ozone depleting chemicals
	Alternative fuels	Substantial emissions
	Communications	Agricultural chemicals
	Property, plant,equipment	Climate change
	Other strength	Other concern
Human rights	Positive record in South Africa	South Africa
	Indigenous peoples relations	Northern Ireland
	Labor rights strengths	Mexico
	Other strength	International labor
		Indigenous peoples relations
		Other concern

Qualitative Screen	Strengths	Weaknesses
Product	Quality	Product safety
	R&D/Innovation	Marketing/contracting controversy
	Benefits to economically disadvantaged	Antitrust
	Other strength	Other concern
Exclusionary Screen	Concerns	
Alcohol	Involvement	
	Other concern	
Gambling	Involvement	
	Other concern	
Firearms	Involvement	
Military	Involvement	
	Minor weapons contracting involvement	
	Major weapons related supplier	
	Other concern	
Nuclear Power	Ownership	
	Design	
	Fuel cycle/key parts	
	Other concern	
Tobacco	Involvement	
	Other concern	