

# CORPORATE SOCIAL RESPONSIBILITY: DOES IT PAY?

Loren A. Wenzel, Buena Vista University  
Harold F. Thiewes, Minnesota State University--Mankato

## ABSTRACT

This paper investigates whether firms defined as socially responsible financially outperform firms that have not been defined as socially responsible. A sample of 118 firms defined as socially responsible by the *Domini 400 Social Index* was matched to a control sample of firms in the same industry of the same relative size selected from COMPUSTAT. Return on Equity (ROE) and Stock Return (RET) were used as measures of performance and were obtained and tested for significant differences. The preliminary results of this study indicate that while there was no significant difference between the ROE of the socially responsible sample of firms and the control sample of firms, the RET of the socially responsible sample of firms were significantly higher than those of the control sample. Thus, the evidence presented in this study supports the hypothesis that socially responsible firms outperform non-socially responsible firms on a market return basis.

## INTRODUCTION

Accounting and finance can be improved immensely by cross-disciplinary research. Financial accounting is concerned with the disclosure of items, financial and otherwise, that are relevant to external decision makers. Finance is concerned with the extent to which external decision makers incorporate this information into their valuation decisions. This study will utilize both accounting variables and finance valuation methods to test whether socially responsible firms outperform non-socially responsible firms.

Some mutual fund managers screen investments to include only those corporations whose business practices are deemed acceptable in terms of the fund manager's criteria on socially responsible behavior. Of those, certain funds have exhibited exemplary performance. An early example is Parnassus Fund's socially responsible screening criteria that resulted in 1988 annual returns of 42%, ranking it as "the number one performing mutual growth fund in the country" (National Catholic Reporter, June 29, 1990). More recently, other funds such as the Domini Social Equity Fund, has been reported to outperform funds that do not apply social responsibility screening criteria to the companies included (Rose, 1998). However, empirical investigation on socially responsible fund performance has been inconclusive when attempting to measure performance relative to some risk-controlled criterion.

Past studies defined corporate social responsibility very narrowly through self-reported company data. The socially responsible sample used for this study is selected from the *Domini 400 Social Index* which has established screening mechanisms (described later) to determine socially responsible behavior. Thus this study will provide a more complete social responsibility measure than previous studies.

Finally, this study attempts to reduce the effects of potentially confounding variables through strict matching of companies based on industry, firm size, capital structure and growth expectations.

## PRIOR RESEARCH

A dialogue between business ethicists, philosophers, and academics concerning the

efficacy to various stakeholders of corporate social responsibility (CSR) has existed for some time. Much of the earlier published dialogue went toward narrowing the definition of CSR to enable corporations to implement and study the effects of CSR programs (eg. Committee for Economic Development, 1971; Linowes, 1974; Simon et. al., 1979; Dulton et. al., 1982).

Once CSR was defined and while the benefits to society of business behaving in a socially responsible manner were apparent, the "benefits" to business were not so apparent. Indeed, it was reasoned that there must be extra costs attached to the effort that business must expend to implement CSR. Milton Freidman argued that "The Social Responsibility of Business is to increase its Profit" (Grant, 1991). Still others believe that there are trade-offs between profit enhancement and the benefits to stakeholders outside the firm. It is argued that if there is an increase in costs there must be an offsetting increase in productivity (McWilliams et. al., 1997) in order for a firm to maximize profit and therefore shareholder wealth. The assertions that have been made regarding the trade-off between firms' social responsibility and financial performance will be tested here.

One argument that has been made consistently regarding the relationship between firms' social responsibility and their financial performance is that a trade-off exists between the two. That is, when firms incur costs from socially responsible actions, it will put them at an economic disadvantage relative to less responsible firms (Aupperle et. al., 1985; Ullman, 1985; Vance, 1975). Additionally, it is argued that a firm overly concerned with social responsibility may be limiting its strategic alternatives as in the case of weapons product decisions or investment decisions in certain locations (eg., South Africa) (Bragdon & Marlin, 1985; Vance 1975).

In contrast, other arguments have been presented for a positive association. For example, improved employee motivation and customer goodwill could be an outcome of socially responsible behavior (Soloman & Hansen, 1985). Additionally, socially responsible activities may also improve relationships with others such as lenders, investors, and government. Improved relationships may bring economic benefits (McGuire et. al., 1988; Mowesavi & Evans, 1986).

Results of past empirical studies that tested the relationship between CSR and financial performance have achieved mixed results. Several studies in top management journals suggest that firms that practice CSR experience superior financial performance (eg. Wright et. al., 1995; Nayyar, 1995; Jacobson, 1994; McWilliams & Siegel, 1997). On the other hand, studies in the finance literature tend to show that firms that practice CSR underperform the market averages (eg., Wood, 1992; Tepper, 1993) especially when considered on a risk adjusted basis (eg., Reyes & Gieb, 1998).

The conflicting and thus inconclusive results of the above mentioned studies can be attributed to methodology design and execution issues (McWilliams & Siegel, 1997). We noticed that the sample selection techniques for the studies varied greatly. Indeed, there were various definitions for socially responsible firms. Therefore, one plausible explanation for the inconsistent results is the possibility that the studies were testing different populations. Our sample selection is based on consistently applied externally generated criterion (*Domini 400*).

In addition, to controlling for size and industry we have included variables that control for risk and growth expectations. We replicated the study after removing the outliers (see discussion of results) and achieved similar results.

The purpose of this study is to contribute to the growing body of empirical

research that tests the relationship between CSR and financial performance. The design of this study solves several of the methodological issues identified as faults of earlier studies by including controls such as matching on industry, firm size, capital structure (to control for risk) and growth expectations.

### DOMINI SAMPLE DESCRIPTION

The Domini Social Index contains approximately 400 companies that were selected based on meeting one of the following criteria:

- Contributions to community,
- Employee Relations,
- The Environment,
- Product, and
- Women and Minority.

We will briefly discuss some of the criteria a company must list to be classified in each category. In terms of:

- 1) contributions to community: the company must perform certain activities such as contributing more than 1.5 percent of pretax earnings to charities, or develop partnerships with the disadvantage;
- 2) employee relations: the company has a reputation for high quality union relations, has a consistent no layoff policy, hires and promotes the disadvantaged or has the highest compensation or benefits in this industry;
- 3) the environment: the company derives more than 4 percent of its revenue from environmental cleanup products, is a substantial user of recyclable materials, or has instituted substantial programs to reduce hazardous waste;
- 4) the product: the company has a reputation for high-quality

- products relative to the industry;
- 5) women and minorities: the company's CEO or board representation is/has women or minority/is or the company maintains strong benefits relating to child care or flexible work schedules.

### METHODOLOGY

Our objective is to compare the financial performance of the set of socially responsible firms, which were selected from the Domini Index as meeting one of the above five criteria, with the financial performance of another sample of matched firms which are not members of the Domini Index. To be included in the set of socially-responsible firms the firm must have a strength noted in one of the above five categories. As an example, the first company listed in the Domini Index, Accession, did not have any strength noted in the Domini check list. Therefore, it was not included in our sample. The next company listed in the Domini Index is Advanced Micro Devices. Advanced Micro Devices had employee relations noted as one of its strengths and therefore was included in our initial sample, even though the environment category was noted as a possible concern area for Advanced Micro Devices. Once the list of socially-responsible firms was created, we attempted to match each firm that met a socially-responsible criteria with a non-Domini firm which was in the same industry and of a similar asset size.

The data base utilized in generating our data base was the 1997 COMPUSTAT CD Rom Data Base (COMPUSTAT). We initially sorted all the companies listed in COMPUSTAT by company SIC Codes. We then implemented a secondary sort, ranking all companies in their particular SIC Code by the firm's year-end 1991 asset size. We selected 1991 as the base year so that we could examine the financial performance in

both a pre- and post-period, relative to the Domini Index's formation in 1990. The criteria used in matching a socially-responsible firm to a firm which failed to meeting the Domini criteria was: 1) the two companies must have identical SIC Codes and 2) the matched firm must be within  $\pm 33\%$  of the size of the socially-responsible firm.

This search identified 119 matched firms. We also required that stock return information must be available in COMPUSTAT for each year over the 1986 to 1996 period. This would allow us to examine the five-year performance in a pre- and a post- Domini formation period. Twenty-six matched sets had missing stock price data for some of the years over the 1986 to 1996 period in either the socially-responsible or its matched firm sample. This resulted in reduced samples of 93 matched firms.

T-statistics for testing the difference between financial variables from the two samples are calculated as

$$t = \frac{(\bar{X}_{socl} - \bar{X}_{cont})}{\sqrt{\sigma_{socl}^2/n_{socl} + \sigma_{cont}^2/n_{cont}}} \quad (1)$$

$\bar{x}$  = the mean for the particular financial variable from the social and the control sample

$\sigma$  = the standard deviation of the particular financial variable of each sample

$n$  = the number of observations used in generating the sample statistic

Table 1 presents the financial characteristics of the two samples. As would be expected, the asset size of the firms were virtually identical, with the average firm in the control sample being only 1.2% larger than the average firm in the socially-responsible sample. The capital structures, measured as Fixed Debt/Equity, also

revealed that the two samples had very similar and statistically insignificant capital structures. However, the socially-responsible firm sample was trading at a significantly higher multiple of market to book value of equity. This difference of .95 was statistically significant at the .01 level but the average P/E ratio in the socially-responsible sample was virtually the same as that exhibited by the control sample. Thus, even though the socially-responsible firms traded at a significant premiums relative to their equity values, the socially-responsible firms did not trade at higher market multiples of their most recent E.P.S., suggesting the two samples may have comparable growth expectations.

Lastly, we are presenting year-end 1996 betas in order to provide an estimate of the systematic risk between the two samples at the end of our reporting periods. We were unable to secure betas for the year-end 1991 period in which the samples were formed. Although, insignificant, the difference in the two samples' betas does suggest that the control sample had a higher degree of systematic risk. Overall, many of the differences were insignificant but the data does suggest that the socially-responsible firms possessed less leverage or financial risk and less systematic risk than their matched counterparts in the control sample.

The financial variables used to compare performance measurements between the two samples are return on equity (ROE) and stock return (RET) performance. COMPUSTAT calculated these measurements as:

$$\text{ROE} = \text{NIAT} / \text{EQUITY BOOK VALUE} \quad (2)$$

$$\text{RET} = \frac{(P_{t+1} - P_t + D_{t+1})}{P_t} \quad (3)$$

where  $P_{t+1}$  and  $P_t$  represents the ending and beginning year's prices respectively.

**TABLE 1**  
**Descriptive Statistics for Sample Financial Characteristics**  
 Sample Means, Standard Deviations ( ), and t-statistics [ ]  
 as of 12/31/91, n = 93

	<u>Social</u>	<u>Control</u>	<u>Difference</u>
Assets	\$7,966 mil.	\$7,763 mil.	-1.2%
Standard Deviations	(\$13,426 mil.)	(\$12,437 mi)	(19%)
Fixed Debt/Equity	1.09	1.27	0.18
Standard Deviations	(0.84)	(1.025)	
t-statistic			[-1.31]
Market/Equity Book	2.537	1.588	.949
Standard Deviations	(2.414)	(2.079)	
t-statistic			[2.87]***
Price/Earnings	18.2	17.42	.78
Standard Deviations	(20.5)	(29.07)	
t-statistic			[.21]
Beta (1996)	.862	.919	-0.057
Standard Deviations	(.382)	(.464)	
t-statistic			[-.915]

Asset difference is given as a percentage of the difference in the matched firm's asset sizes relative to the asset size of the socially-responsible firm.

All firm financial characteristics are based on 1991 year-end data from the COMPUSTAT CD Data Base with the exception of firm betas which are based on 1996 year-end data.

\*\*\* Significant at the .01 level.

Dividends paid over the year are included and compounded to the end of the year.

Sample return averages reported are based on an equal weighting of each firms' return measurement. The two highest and two lowest annual stock returns of each sample, as well as each year's mean sample return and deviation are presented in Table 2. A perusal of Table 2 indicates that the mean annual returns and their standard deviations are being driven, in many years,

by an extremely high outlier. As an example, in 1993, the highest return in the socially-responsible sample was 668.4%, while the second highest was 186.4%. Also, the highest 1996 return in the control sample was 1,811% while the second highest was only 125.8%. We decided to employ the Windser technique and eliminate the highest and the lowest return from each sample in each year to give a better indication of the average return difference in each year. Prior to the discussion of the return results in

**TABLE 2**  
**Full Sample Market Return Data by Year**

**Panel A: Highest and Lowest Range of Returns of Full Sample Year**

(Industry Matched Firms of Similar Asset Size,  
Capital Structure, and MV/BV, n=93)

	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
Social Highest	0.883	2.278	1.128	1.752	.0601	2.59	1.227	6.684	1.385	1.125	1.368
2 <sup>nd</sup> Hi.	0.845	1.071	0.765	1.192	0.429	2.01	0.849	1.864	1.36	1.043	1.313
2 <sup>nd</sup> Lo	-0.471	-.0492	-0.271	-0.317	-0.5	-0.251	-0.389	-0.271	-0.403	-0.337	-0.348
Lowest	-0.526	-0.615	-0.408	-0.381	-0.637	-0.817	-0.819	-0.287	-0.433	-0.469	-0.435
Control Highest	1.391	2.023	1.128	1.353	0.392	3.403	3.538	1.978	1.543	1.347	18.118
2 <sup>nd</sup> Hi.	0.924	1.68	1.025	0.772	0.333	2.375	1.708	1.335	0.516	0.932	1.258
2 <sup>nd</sup> Lo.	-0.6	-0.482	-0.302	-0.4	-0.729	-0.355	-0.563	-0.284	-0.698	-0.423	-0.4
Lowest	-0.681	-0.767	-0.354	-0.428	-0.74	-0.488	-0.633	-0.891	-0.72	-0.581	-0.53

**Panel B: Mean Returns and Sample Differences by Year with Outliers Included**

	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
Social Mean Ret.	0.178	0.059	0.178	0.314	-0.058	0.413	0.125	0.241	0.015	0.283	0.2
Std Dev.	(0.254)	(0.345)	(0.215)	(0.324)	(0.224)	(0.493)	(0.3)	(0.756)	(0.274)	(0.314)	(0.29)
Control Mean Ret.	0.192	0.089	0.164	0.186	-0.133	0.358	0.198	0.194	-0.015	0.305	0.408
Std. Dev.	(0.316)	(0.433)	(0.248)	(0.328)	(0.242)	(0.524)	(0.493)	(0.367)	(0.277)	(0.325)	(1.869)
Social-Control Mean Ret.	-0.014	-0.031	0.014	0.129	0.075	0.055	-0.073	0.047	0.031	-0.022	-0.211
Std. Dev.	(0.36)	(0.477)	(0.302)	(0.416)	(0.287)	(0.599)	(0.553)	(0.846)	(0.271)	(0.398)	(0.188)

Table 3, we will briefly discuss our hypotheses.

### HYPOTHESES

We hypothesize two plausible hypotheses in attempting to explain possible differences between the socially-responsible and the control samples. Against the null hypothesis that there is no difference between the various financial measurements of the two samples, we would argue that if social responsibility is valued by investors, the

stock market performance (RET) is greater, or, at a minimum, is not penalized or equal, in the socially-responsible sample than the control sample:

$$RET_{\text{Social}} \geq RET_{\text{Control}}$$

From an opposite perspective, if the socially responsible firms are engaged in expenditures on socially desirable causes that, while beneficial to society and particular stakeholders, are not beneficial to stockholders on a revenue/cost basis, we

**TABLE 3**  
**Market Return Data By Year with Year's High and Low Outliers Eliminated**

Annual Return Statistics Sample		N=89									
<b>Returns</b>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
Social	0.184	0.0467	0.173	0.305	-0.065	0.395	0.118	0.177	0.004	0.285	0.193
(Std. Dev.)	(0.232)	(0.25)	(0.185)	(0.285)	(0.205)	(0.423)	(0.237)	(0.351)	(0.234)	(0.296)	(0.26)
Control	0.193	0.084	0.161	0.187	-0.139	0.416	0.175	0.19	-0.032	0.31	0.222
(Std. Dev.)	(0.3)	(0.379)	(0.225)	(0.3)	(0.227)	(0.416)	(0.343)	(0.301)	(0.209)	(0.294)	(0.284)
<b>Return Diff.</b>	<b>-0.008</b>	<b>-0.037</b>	<b>0.012</b>	<b>0.118</b>	<b>0.075</b>	<b>0.061</b>	<b>-0.057</b>	<b>-0.013</b>	<b>0.036</b>	<b>-0.025</b>	<b>-0.029</b>
<b>ROE</b>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
Social	0.121	0.13	0.125	0.139	0.123	0.099	0.091	0.117	0.112	0.188	0.171
(Std. Dev.)	(0.098)	(0.084)	(0.198)	(0.113)	(0.118)	(0.159)	(0.225)	(0.115)	(0.174)	(0.443)	(0.22)
Control	0.095	0.049	0.1	0.135	0.099	0.071	0.059	0.07	0.119	0.093	0.086
(Std. Dev.)	(0.21)	(0.059)	(0.212)	(0.19)	(0.437)	(0.24)	(0.361)	(0.32)	(0.126)	(0.251)	(0.24)
<b>ROE Diff.</b>	<b>0.026</b>	<b>0.081</b>	<b>0.024</b>	<b>0.005</b>	<b>0.024</b>	<b>0.027</b>	<b>0.033</b>	<b>0.047</b>	<b>-0.007</b>	<b>0.095</b>	<b>0.086</b>
<b>Mkt Return</b>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
S&P 500	0.146	0.02	0.124	0.273	-0.066	0.263	0.045	0.071	-0.015	0.341	0.201
NASDAQ	0.074	-0.053	0.154	0.193	-0.178	0.568	0.155	0.148	-0.032	0.399	0.227

S&P 500 and NASDAQ Index returns are taken from the year-end results presented in the early January editions of the *Wall Street Journal*.

Market return data presented is from the sample of 93 firms in each sample. However, if any particular firm had the highest or lowest return for the year, its return was eliminated for that year only. Thus, two returns were eliminated from each sample, resulting in 89 firms' returns for comparative purposes in each year. ROE data had extreme outliers influencing the means. Accordingly, we eliminated the two highest and two lowest outliers from each sample. Thus, differences in ROE between the two samples are generated with 85 firm observations.

would expect the market to penalize socially-responsible firms. This argument would result in the socially-responsible sample underperforming the control sample:

$$RET_{\text{Social}} < RET_{\text{Control}}$$

## RESULTS

The annual return performance measurements for the two samples, and the annual market return performance of the S&P 500 and NASDAQ Stock Indices are presented in Table 3. For some years, a particular firm in one of the samples exhibited extremely large

deviations from the average sample ROE for that year. This resulted in one or two firms driving the ROE difference for that year. As an example, in 1994 one firm in the control sample reported an ROE of 1,275%, causing the average 1994 ROE to change from 12% to 26%. In an attempt to eliminate the impact extreme outliers would have on this measurement, we again used the Windsor technique to eliminate the two highest and two lowest annual ROE's in each sample. Over the eleven-year period studied, the ROE ranged from -136% to 338% in the socially-responsible sample and -145% to 384% in the control sample. This would

allow for a more representative comparison of the average firm's ROE between the two samples.

An examination of the ROE measure indicates that the ROE of the socially-responsible sample was consistently larger than the ROE of the control sample in all but one year over the 1986 through 1996 period. In 1994, the ROE of the socially-responsible sample was smaller than the ROE of the control sample by less than 1 percent. The higher ROE generated by the socially-responsible sample did not correspond to a higher stock return in all years. The highest return difference was actually generated over the 1989 and 1990 years, years in which the socially-responsible sample's stock market returns outperformed the returns of the S&P500 and the NASDAQ Index. During these two years, the control sample underperformed both indexes. In 1991, a year of strong market performance by both indexes, the socially-responsible sample also exhibited a rather strong return advantage of 6.1% over the control sample. This was in a year when the socially-responsible firm's sample realized a market return of 39.5%, which was between the S&P500's return of 26.3% and the NASDAQ's return of 56.8%. Thus, it does not appear that the two sample's return differences were driven by the performance of the particular indexes.

In the 1992-96 period, no discernible pattern appears evident with the differences between the two samples ranging from the socially-responsible sample underperforming the control sample by 5.7% in 1992 to outperforming the control sample by 3.6% in 1994. Table 4 presents a clearer picture of the ROE and market return differences by aggregating the sample returns into two five-year periods: a 1986-1990 pre-Domini formation period and a 1992-1996 post-Domini formation period. We used year-end

1991 as the year of sample formation and excluded this year from the pre- and post-period analysis.

Table 4 reveals that the socially-responsible sample's annual ROE was higher than the control sample's by 3.3% in the 1986-1990 period and by 5% in the 1991-1996 period. Both differences were significant at the 1% level. Thus, even though the two samples are matched on industry and asset size, the assumption of such costs as strong community contributions, environmental responsibility, a no lay-off policy, or a high compensation policy relative to other firms in the industry appears to result in productivity that results in a higher ROE than that generated by others in the industry.

While the results are evident from an accounting standpoint, the market returns are not nearly as pronounced. The socially-responsible sample realized market returns of 12.14% over the 1986-90 period. These returns exceeded both the S&P500 and the NASDAQ Index. When compared to the control sample's average annual return, returns of the socially-responsible sample were 3.24% larger, a difference significant at the 10% level. Thus, the higher ROE also resulted in higher market returns over the 1986-90 period, although the higher returns were heavily driven by the 1989 and 1990 years.

The 1992-96 period shows that the socially-responsible sample continues to realize a significantly higher ROE difference of 5%, significant at the .01 level. However, during this period the socially-responsible sample realized market returns that were less than the control sample, although this difference is insignificant.

It is difficult to determine why the higher ROE no longer translates into higher market returns relative to the control sample in the post-Domini formation period.



Although the difference in ROE actually increased from 3.5% to 5% from the 1986-90 to the 1992-96 period, the average market returns of the socially-responsible sample underperformed the control sample by a statistically insignificant 1.55%. However, the average market return of the socially-responsible sample exceeded the market return of the S&P500, although both samples slightly underperformed the return generated by the NASDAQ 500 Index.

### CONCLUSION

Our findings suggest that socially-responsible firms in the same industries and of similar size as comparative firms that are not recognized as socially-responsible tend to generate a consistently stronger ROE. One might argue that this is due to benefits generated from the loyalty of employees, the responsibility the firm shows to stakeholders and the benefits generated by a more socially-conscious management.

To be included in the socially-responsible sample the firm must be both recognized by Domini as being socially responsible and specifically cited in one of five categories as meeting a socially-responsible strength. At the time of selection, these firms exhibited significantly stronger market returns over the previous five years. However, in the five-year post period, the socially-responsible firms earned market returns similar to comparative sample.

The relative strength of the ROE in the socially-responsible sample suggests that the act of being socially-responsible does not have a negative impact of profitability. While this higher ROE does not consistently translate into higher market returns for stockholders, the set of socially-responsible firms may provide investors with a portfolio that offers investors a lower risk level relative to their industry counterparts.

Should a socially-responsible fund underperform over a prolonged period of time, our findings suggest any underperformance would not be attributed to any costs of social responsibility but would be associated with a lack of diversification. That could, in turn, be attributed to selecting from a set of firms that may not provide the investor with the full range of diversification. These results may provide greater insight in understanding the range of historical market returns realized by particular socially-responsible mutual funds such as the Calvert, Domini and Parnassus social funds.

For the reader's information, the three and five year summary of these funds' annual return performance for the year-end 1998 is provided below:

Fund	3-Yr Ret	5-Yr Ret
Calvert Soc.		
Inv. Bal.	15.1%	12.8%
Domini Social		
Equity	30.1%	24.3%
Parnassus		
Fund	13.7%	10.6%
S&P 500	28.8%	24.09%

Source: Wall Street Journal, January 7, 1999.

ROE is an accounting variable. It measures the profitability of a firm. Market return is a financial variable that measures the increase in shareholder wealth. ROE is only one portion of a stock return. It is entirely possible that social responsibility is an artifact of a firm's success. That is, well-managed companies, as suggested by the premium to book value that they maintain, are strategically positioned and successful and would be able to take advantage of the "goodwill" generated by practicing social responsibility.

### FUTURE RESEARCH

This study found that firms that practice CSR perform as well as those that have not

**TABLE 4**  
**Book and Market Value Return Comparisons in the**  
**Pre and Post Domini Formation Period**

**Panel A. Average Annual Market Return (Geometric Mean)**

<u>1986-90</u>	<u>Social</u>	<u>Control</u>	<u>Difference</u>	<u>S&amp;P 500</u>	<u>NASDAQ</u>
Mean Annual	12.14%	8.99%	3.24%	9.33%	2.8%
Std. Dev.	(11.89%)	(12.27%)		---	---
t-statistic	1.828*				
<u>1991-96</u>					
Mean Annual	15.15%	16.7%	-1.55%	12.16%	17.1%
Standard Deviation				(13.55%)	(14.1%)
t-statistic	-.076				

**Panel B. Average Annual Return on Equity (Geometric Mean)**

<u>1986-90</u>	<u>Social</u>	<u>Control</u>	<u>Difference</u>
Mean Annual	0.128	.095	.033
Standard Deviation	(.077)	(.078)	
t-statistic	2.90**		
<u>1991-96</u>			
Mean Annual	.135	.085	.05
Standard Deviation	(.127)	(.093)	
t-statistic	3.06**		

\*Significant at the .10 level

\*\*Significant at the .01 level

been identified as practicing CSR. Firms were selected from the *Domini 400* and matched to non-CSR firms based on industry and size.

To be included in the *Domini 400 Index*, a firm must have met one of five criteria that *Domini* considered important. The diverse nature of the selection criteria, however, would necessarily have differing effects on the financial performance of the companies involved. That is, the financial cost of implementation is not going to be the same for all criteria. Thus the financial performance should differ according to the cost.

A possible extension of this study would be to compare the different categories of social responsibility to determine their impact on a firm's financial performance.

#### REFERENCES

- Aupperle, K., A. Carroll, and J. Hatfield. 1985. An empirical examination of the relationship between corporate social responsibility and profitability. *Academy of Management Journal* 28: 446-463.
- Bradgon, J.H. and J. Marlin. 1972. Is pollution profitable? *Risk Management* 19(4): 9-18.

- Grant, C. 1991. Friedman fallacies. *Journal of Business Ethics* 10: 907-914.
- Jacobson, C. 1994. Investor response to health care cost containment legislation: Is American policy designed to fail? *Academy of Management Journal* 37: 440-452.
- McGuire, J., A. Sundgren, and T. Schneeweis. 1988. Corporate social responsibility and firm financial performance. *Academy of Management Journal* 31(4): 854-872.
- McWilliams, A. and D. Siegel. 1997. Events studies in management research: Theoretical and empirical issues. *Academy of Management Journal* 40(3): 568-592.
- \_\_\_\_\_. 1997. The role of money managers in assessing corporate social responsibility research. *Journal of Investing (Winter)*: 98-107.
- Moussavi, F. and D. Evans. 1986. An attributional approach to measuring corporate social performance. Paper presented at the Academy of Management meetings, San Diego.
- Nayyar, P. 1993. Stock market reactions to customer service changes. *Strategic Management Journal* 14: 569-591.
- Poitras, G. 1994. Shareholder wealth maximization, business ethics and social responsibility. *Journal of Business Ethics* (February): 125.
- Reyes, M. and T. Grieb. 1998. The external performance of socially-responsible mutual funds. *American Business Review* (January): 1-7.
- Soloman, R. and K. Hansen. 1985. *It's Good Business*. New York: Atheneum.
- Tepper, J.A. 1993. Evaluating the cost of socially responsible investing. *The Social Investment Almanac*. P.D. Kinder, S.D. Lydenber, and A.L. Domini (eds.). Henry Holt and Co. New York: 340-349.
- Ullmann, A. 1985. Data in search of a theory: A critical examination of the relationship among social performance, social disclosure, and economic performance. *Academy of Management Review* 10: 540-577.
- Vance, S. 1975. Are socially responsible firms good investment risks? *Management Review* 64: 18-24.