

Socially Responsible Investing: Viable for Value Investors?

LORNE ABRAMSON AND DAN CHUNG

LORNE ABRAMSON, CFA, is a senior securities analyst and portfolio manager at Spare, Kaplan, Bischel & Associates, a San Francisco value-oriented investment advisory firm, where he leads the Socially Responsible Strategy team. He holds an M.B.A. from the Wharton School at the University of Pennsylvania and an undergraduate degree from Rutgers College. He is a cofounder of the Wharton Chapter of Net Impact, a national organization of M.B.A. students dedicated to ethical business practices.

DAN CHUNG is a research associate at Spare, Kaplan, Bischel & Associates. He holds a B.A. in finance and international business from San Francisco State University.

Recent performance of the Domini Social Index (DSI) and the Citizens Trust Index has built a credible case for socially responsible investing (SRI). Both of these SRI indexes have outperformed the broader S&P 500 market index since their inception in the early 1990s. Their Morningstar 5-star rankings have helped fuel the growth of SRI assets. According to the Social Investment Forum and the Conference Board, assets in socially screened portfolios grew by \$529 billion to approximately \$1.2 trillion between 1995 and 1997, and as of 1997 account for just under 10% of all U.S. professionally managed investments (see "Social Investing Grows" [1999]).

Proponents of socially responsible investing may be inclined to point to the performance of the Domini and Citizens indexes as proof that superior corporate social performance leads to strong relative share price appreciation. While one might prefer to believe that "good" companies are ultimately rewarded with premium valuations in the marketplace, research on the impact of social factors remains inconclusive. Rather, more tangible financial characteristics, specifically related to sector weightings and style bias, appear to be driving the indexes' relative outperformance. This is consistent with DiBartolomeo's assertion that the "relative outperformance of the DSI [is] consistent with factor and industry 'bets' . . . [as] there is no evidence of a 'social' factor" [1996, p. 3].

Indeed, many of the top holdings of the DSI and Citizens indexes are the same large-capitalization growth stocks that have dominated the performance of the S&P 500. According to statistics recently published by Sanford Bernstein, a leading Wall Street brokerage firm, the largest 20 stocks outperformed the average S&P 500 stock by 27 percentage points in 1998 and by 15.5% on average in each of the past three years, which is by far the greatest skewing of the last 30 years; the 20 biggest growth stocks also produced their best-ever annual relative performance (see Goldstein et al. [1999, p. 7]).

In addition, both the Domini and Citizens indexes (particularly the latter) are overweighted in the technology sector, one of the key drivers of the current bull market. The performance of this sector has been so strong that, as of January 1999, technology stocks were trading at their highest price/earnings ratios on record. Moreover, due in large part to its relative strength, this sector now represents the largest constituency group within the S&P 500, representing over 25% of the index's total capitalization.

The relative outperformance of the leading SRI indexes in a growth-oriented market is consistent with previous research. According to DiBartolomeo, "the DSI is more 'growth' oriented than the S&P 500," and "the slightly higher return volatility of the DSI as compared to the S&P 500 is consistent with the growth orientation" [1996, p. 3].

The growth bias of the SRI indexes is not surprising, given that some sectors that typically fall in the value style camp are considered more controversial in terms of passing standard social screens. Specifically, many of the cyclical areas that are considered value investor staples—such as chemicals and energy—are resource-extractive, and may present problems to socially responsible investors from an environmental perspective. Electric utilities, many of which have nuclear exposure, represent another example of potential concern.

Proponents of SRI are therefore faced with an interesting and challenging question: What will happen in a market environment that is less favorable to growth stock investing? Both the DSI and Citizens Trust indexes have betas in excess of 1.0, which, again from a pure financial standpoint, implies outperformance in a strong market. Conversely, however, these betas also imply subpar performance under more challenging market conditions.

A fair amount of skepticism has already appeared in the media about the sustainability of SRI performance. According to a recent Bloomberg newswire piece, “recent results may have less to do with the rewards of ethical corporate management than they do [with] the kinds of stocks that have recently been hot.” An analyst at Morningstar, quoted in the same piece, says:

Other reasons the socially conscious funds may be doing well is that “moral” stocks tend to be large capitalization companies, which have been winners. In addition, socially responsible companies typically fall in the growth stock category, which has also done well (Antilla [1999, p. 1]).

Furthermore, according to an article in the *New York Times*:

Not everyone is convinced. A. Michael Lipper, chairman of Lipper, Inc., thinks social investments have just been lucky. “The Domini index has done well because it’s underweighted in basic industries and energy, sectors with lower social standing” and, recently, lower returns, he said. “And it emphasizes technology and services,” sectors that have led the bull market, he added (Legomsky [1999, p. 1]).

Is it correct to assume SRI is amenable *only* to growth stock investing? Despite the perception that value

investing inherently assumes exposure to sectors with “lower” social standing, can a credible case be made for a more conservative, value-oriented form of socially responsible investing? Bottom-line, does SRI transcend market cycles and style preferences? These are critical questions that need to be addressed; otherwise, the recent performance of SRI funds may ultimately be considered an historical anomaly.

As Kurtz asserts, SRI “could be asymmetrical by style,” yet “no studies have been made of the impact of screening on value” [1997, p. 39]. My purpose, therefore, is to help fill a void of information concerning value investing and SRI. The results of the analysis show it is premature to dismiss value as a viable style for socially responsible investors.

VALUE INVESTING DEFINED

Although Warren Buffett claims “value and growth are joined at the hip,” and, ideally, all investors ultimately want to purchase the shares of a given company at a price lower than their estimated worth, we defer to Maginn and Tuttle to make the distinction between value and growth stock investing:

Although growth and value can be defined in various ways, growth generally refers to a portfolio emphasizing securities with higher-than-average historic growth in earnings per share. Ancillary characteristics often include higher than average price/earnings (P/E) ratios and low dividend yields. Value portfolios are usually characterized as having lower-than-average price/book ratios. Low P/E ratios and high yields are other characteristics [1983, pp. 9-12-9-13].

Value investing pertains not just to cyclical companies—many of which, as noted above, may present issues from an environmental perspective. This is an important point, as it addresses the perception that value has an inherent bias toward “sin” stocks. Rather, in a broader sense, value encompasses *unpopular* stocks—not just stocks in industries that are considered mature and with modest growth prospects, but also turnaround opportunities (e.g., stocks of companies experiencing problems that are expected to recover, including “fallen angel” growth stocks) or, more generally, stocks whose assets are undervalued by the market. In essence, value managers tend to buy stocks that are undervalued *compared*

to the overall market (see Riepe et al. [1998, p. 2]).

As value investors, we concentrate primarily on two metrics in terms of finding attractive stocks: relative dividend yield, and relative market capitalization-to-revenues. We focus on relative valuation as it allows us to gauge a particular security's attractiveness not only in relation to its own history, but also to the overall market. Absolute valuation measures, in our perspective, can be faulty indicators of value and may present a challenge in terms of adequate portfolio diversification (see Spare [1992, p. 22]).

Furthermore, using dividends and revenues allows one to pay less attention to reported earnings. According to Spare:

Although a low price-to-earnings ratio is probably the most common method employed by value managers, the followers of such a strategy face a fundamental problem: Either they must exclude very large groups of stocks with cyclical earnings patterns from consideration (i.e., companies with abnormally depressed earnings can trade at astronomical price-to-earnings ratios), or they must override their own criterion of using reported earnings by normalizing earnings [1992, p. 23].

Earnings can also be more a function of accounting convention than actual economics. More specifically, earnings can differ significantly from cash flow, and it is cash flow, not earnings, that ultimately determines the value of a financial asset. Similar difficulties arise when looking at book value, particularly given the pervasiveness of restructuring charges over recent years.

Dividends, on the other hand, are generally paid out of free cash flow—and hence constitute the foundation of the well-known dividend discount model for security valuation. Furthermore, as Spare states:

Dividend policy at most large corporations is taken very seriously by management and the Board of Directors, and changes in the dividend are not made without considerable review of the longer-term fundamentals of the company and the industry within which it must operate [1992, p. 15].

Similarly, like dividends, revenues are more stable than reported earnings and are also less subject to accounting manipulation. The bottom line, in our opinion, is that

dividends and revenues afford investors better insight into companies' underlying earning power—and, in turn, their intrinsic value.

STUDY RESULTS

For the purpose of our analysis, we test the performance of value stocks—as defined by relative dividend yield and relative market capitalization-to-revenues—within the Domini 400. We use the Domini index as our universe given its longevity as an SRI benchmark and its data accessibility. In determining the feasibility of a socially responsible value style, we analyze the performance of value subsets of the Domini index against popular value benchmarks. Obviously, given the strong performance of the Domini index and the S&P 500 since the former's inception in 1990, it would not be fair to measure the SRI value subsets relative to the two indexes—given that value, as a style in general, has underperformed over the time period. Rather, we look at performance relative to standard *value* indexes, to determine whether a significant cost were borne if one chose to invest in a socially screened value style for the period.

We consider two strategies: 1) a rebalance strategy, and 2) a buy-and-hold strategy.

Rebalance Strategy

- Using the Compustat database, at the end of each calendar quarter starting with the third quarter of 1990 (the Domini index's inception date), the DSI is ranked by relative yield and relative market capitalization-to-revenues.
- Stocks with relative yields 1.25 times or greater than the S&P 500, and/or with a relative market capitalization-to-revenues of at least one standard deviation below their five-year average, are identified.
- These stocks become the portfolio whose performance is measured for that quarter.
- The process is repeated for 39 successive quarters (4Q 1990-1Q 2000), rebalancing the portfolio quarterly.
- Results are measured on a market capitalization-weighted basis.
- The test assumes no transaction costs and no income from cash.

Buy-and-Hold Strategy

- Using the Compustat database, starting with the third quarter of 1990, the DSI is ranked by relative yield and relative market capitalization-to-revenues.

- Stocks with relative yields 1.25 times or greater than the S&P 500, and/or with a relative market capitalization-to-revenues of at least one standard deviation below their five-year average, are identified.
- These stocks become the original portfolio on which to measure performance for the remaining 39 quarters.
- Stocks are eliminated from the original portfolio only if and when they are removed from the DSI; no replacements are added.
- Results are measured on a market capitalization-weighted basis, again assuming no transaction costs and no income from cash.

The value benchmarks are the Russell 1000 Value, the S&P Barra Value, and the Wilshire Large Cap Value. Exhibit 1 conceptualizes the methodology.

EXHIBIT 1

SRI Value Test Methodology

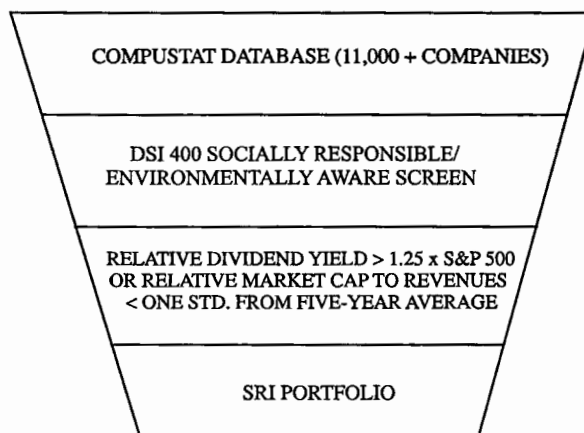


EXHIBIT 2

Performance Comparison for SRI Value Index, Russell 100 Value, S&P Barra Value, and Wilshire Value (%)

	SRI Value Rebalance	SRI Value Buy-and-Hold	Russell Value	S&P Barra	Wilshire Value	Index Average
1990*	-5.62	-7.41	-6.96	-6.32	-6.30	-6.53
1991	24.68	29.48	24.60	22.56	25.64	24.27
1992	21.36	13.29	13.79	10.52	14.39	12.90
1993	14.87	17.30	18.14	18.62	13.45	16.74
1994	-0.06	-4.51	-1.99	-0.64	-4.34	-2.33
1995	36.52	39.73	38.37	37.00	43.47	39.61
1996	17.55	16.75	21.64	21.99	19.09	20.91
1997	43.92	36.86	35.18	29.99	31.37	32.18
1998	20.69	23.37	15.62	14.68	11.25	13.85
1999	5.66	2.28	7.36	12.72	-7.10	4.33
2000	-0.65	0.48	0.48	0.23	-1.38	-0.22
Cumulative Return 1-Year (6/90-6/91)	8.80	5.45	5.34	5.82	5.01	5.39
Annualized Returns	8.80	5.45	5.34	5.82	5.01	5.39
Standard Deviation	29.45	27.24	23.65	22.27	23.04	22.99
Cumulative Return 3-Years (6/90-6/93)	57.00	48.15	48.91	42.51	49.99	47.14
Annualized Returns	16.34	13.99	14.19	12.53	14.47	13.74
Standard Deviation	16.21	15.37	13.30	12.49	13.34	13.05
Cumulative Return 5-Years (6/90-6/95)	96.70	79.50	82.26	78.26	75.78	78.76
Annualized Returns	14.55	12.41	12.76	12.26	11.94	12.32
Standard Deviation	13.65	13.48	11.71	11.00	12.28	11.67
Cumulative Return Since Inception (6/90-3/99)	379.73	330.63	333.48	320.96	234.36	296.27
Annualized Returns	17.45	16.15	16.23	15.88	13.18	15.10
Standard Deviation	14.56	15.36	13.09	12.96	13.52	13.19

Source: Compustat.

EXHIBIT 3

Risk-Adjusted Returns

End of:	SRI Rebalance Value	SRI Buy&Hold Value	Russell 1000 Value	S&P Barra Value	Wilshire Large- Cap Value	Index Value	T-Bills Annual	T-Bills Quarterly	SRI Rebalance -T-Bills	SRI Buy&Hold -T-Bills	Russell 1000 -T-Bills	S&P Barra -T-Bills	Wilshire Large -T-Bills	Index -T-Bills
3Q1990	-15.64%	-15.64%	-13.97%	-13.01%	-14.06%	-13.68%	7.13%	1.78%	-17.42%	-17.42%	-15.75%	-14.79%	-15.84%	-15.46%
4Q1990	11.88%	9.76%	8.15%	7.69%	9.03%	8.29%	6.52%	1.63%	10.25%	8.13%	6.52%	6.06%	7.40%	6.66%
1Q1991	17.22%	15.23%	13.10%	12.57%	11.43%	12.37%	5.76%	1.44%	15.78%	13.79%	11.66%	11.13%	9.99%	10.93%
2Q1991	-1.66%	-1.17%	0.10%	0.35%	0.57%	0.34%	5.55%	1.39%	-3.05%	-2.56%	-1.29%	-1.04%	-0.82%	-1.05%
3Q1991	3.23%	4.77%	5.30%	4.37%	6.96%	5.54%	5.11%	1.28%	1.95%	3.49%	4.02%	3.09%	5.68%	4.27%
4Q1991	4.77%	8.52%	4.52%	3.95%	4.82%	4.43%	3.86%	0.97%	3.81%	7.56%	3.56%	2.99%	3.86%	3.47%
1Q1992	1.15%	-0.57%	1.12%	0.43%	-1.34%	0.07%	4.15%	1.04%	0.11%	-1.61%	0.08%	-0.61%	-2.38%	-0.97%
2Q1992	3.62%	2.06%	4.17%	4.31%	4.93%	4.47%	3.66%	0.92%	2.71%	1.15%	3.26%	3.40%	4.02%	3.56%
3Q1992	7.62%	3.89%	2.07%	1.71%	4.54%	2.77%	2.73%	0.68%	6.94%	3.21%	1.39%	1.03%	3.86%	2.09%
4Q1992	7.59%	7.46%	5.83%	3.73%	5.70%	5.09%	3.14%	0.79%	6.81%	6.68%	5.05%	2.95%	4.92%	4.30%
1Q1993	8.86%	7.79%	9.67%	9.25%	9.17%	9.36%	2.94%	0.74%	8.13%	7.06%	8.94%	8.52%	8.44%	8.63%
2Q1993	0.99%	1.19%	2.93%	2.80%	2.02%	2.58%	3.09%	0.77%	0.22%	0.42%	2.16%	2.03%	1.25%	1.81%
3Q1993	1.99%	8.30%	4.94%	5.17%	5.32%	5.14%	2.97%	0.74%	1.25%	7.56%	4.20%	4.43%	4.58%	4.40%
4Q1993	2.45%	-0.70%	-0.27%	0.43%	-3.28%	-1.04%	3.07%	0.77%	1.68%	-1.47%	-1.04%	-0.34%	-4.05%	-1.81%
1Q1994	-4.02%	-4.81%	-3.49%	-3.27%	-4.88%	-3.88%	3.56%	0.89%	-4.91%	-5.70%	-4.38%	-4.16%	-5.77%	-4.77%
2Q1994	0.64%	2.10%	0.62%	0.92%	-0.19%	0.45%	4.25%	1.06%	-0.42%	1.04%	-0.44%	-0.14%	-1.25%	-0.61%
3Q1994	3.14%	1.55%	2.55%	2.56%	1.21%	2.11%	4.80%	1.20%	1.94%	0.35%	1.35%	1.36%	0.01%	0.91%
4Q1994	0.31%	-3.25%	-1.58%	-0.76%	-0.45%	-0.93%	5.71%	1.43%	-1.12%	-4.68%	-3.01%	-2.19%	-1.88%	-2.36%
1Q1995	11.29%	9.36%	9.51%	9.64%	10.35%	9.83%	5.89%	1.47%	9.82%	7.89%	8.04%	8.17%	8.88%	8.36%
2Q1995	7.81%	7.89%	8.96%	8.71%	8.99%	8.89%	5.61%	1.40%	6.41%	6.49%	7.56%	7.31%	7.59%	7.48%
3Q1995	7.80%	12.23%	8.74%	7.96%	11.25%	9.32%	5.40%	1.35%	6.45%	10.88%	7.39%	6.61%	9.90%	7.97%
4Q1995	5.55%	5.52%	6.64%	6.47%	7.23%	6.78%	5.19%	1.30%	4.25%	4.22%	5.34%	5.17%	5.93%	5.48%
1Q1996	3.21%	3.37%	5.66%	6.39%	4.84%	5.63%	5.18%	1.30%	1.92%	2.08%	4.37%	5.10%	3.55%	4.34%
2Q1996	5.31%	3.94%	1.72%	2.05%	0.54%	1.44%	5.19%	1.30%	4.01%	2.64%	0.42%	0.75%	-0.76%	0.14%
3Q1996	2.38%	-0.72%	2.91%	2.64%	2.55%	2.70%	5.15%	1.29%	1.09%	-2.01%	1.62%	1.35%	1.26%	1.41%
4Q1996	5.64%	9.45%	9.98%	9.47%	10.17%	9.87%	5.17%	1.29%	4.35%	8.16%	8.69%	8.18%	8.88%	8.58%
1Q1997	3.07%	4.06%	2.56%	1.76%	1.48%	1.93%	5.32%	1.33%	1.74%	2.73%	1.23%	0.43%	0.15%	0.60%
2Q1997	16.10%	15.96%	14.74%	14.47%	11.88%	13.70%	5.24%	1.31%	14.79%	14.65%	13.43%	13.16%	10.57%	12.39%
3Q1997	8.95%	7.97%	9.96%	9.17%	11.46%	10.20%	5.09%	1.27%	7.68%	6.70%	8.69%	7.90%	10.19%	8.93%
4Q1997	10.39%	5.05%	4.47%	2.22%	3.81%	3.50%	5.34%	1.33%	9.06%	3.72%	3.14%	0.89%	2.48%	2.17%
1Q1998	13.98%	15.41%	11.66%	11.55%	10.04%	11.08%	5.12%	1.28%	12.70%	14.13%	10.38%	10.27%	8.76%	9.80%
2Q1998	-3.58%	0.90%	0.45%	0.52%	0.02%	0.33%	5.10%	1.27%	-4.85%	-0.37%	-0.82%	-0.75%	-1.25%	-0.94%
3Q1998	-8.04%	-12.95%	-11.59%	-12.91%	-11.18%	-11.89%	4.34%	1.08%	-9.12%	-14.03%	-12.67%	-13.99%	-12.26%	-12.98%
4Q1998	19.42%	21.70%	16.60%	17.43%	13.80%	15.94%	4.43%	1.11%	18.31%	20.59%	15.49%	16.32%	12.69%	14.84%
1Q1999	-0.52%	-2.24%	1.44%	2.85%	-0.02%	1.42%	4.47%	1.12%	-1.64%	-3.36%	0.32%	1.73%	-1.14%	0.31%
2Q1999	13.32%	13.06%	11.27%	10.80%	7.84%	9.97%	4.76%	1.19%	12.13%	11.87%	10.08%	9.61%	6.65%	8.78%
3Q1999	-10.97%	-10.48%	-9.79%	-9.23%	-14.04%	-11.02%	4.83%	1.21%	-12.18%	-11.69%	-11.00%	-10.44%	-15.25%	-12.23%
4Q1999	5.28%	3.37%	5.44%	8.97%	0.24%	4.88%	5.29%	1.32%	3.96%	2.05%	4.12%	7.65%	-1.08%	3.56%
1Q2000	-0.65%	0.48%	0.48%	0.23%	-1.38%	-0.22%	5.88%	1.47%	-2.12%	-0.99%	-0.99%	-1.24%	-2.85%	-1.69%
Quarterly Average Return	4.36%	4.10%	4.04%	3.96%	3.37%	3.79%	4.77%	1.19%	3.16%	2.91%	2.85%	2.77%	2.18%	2.60%
Standard Deviation	7.28%	7.68%	6.55%	6.48%	6.76%	6.52%								
Yearly Average Return	17.42%	16.39%	16.16%	15.83%	13.47%	15.16%			12.66%	11.62%	11.39%	11.06%	8.71%	10.39%
Standard Deviation	14.56%	15.36%	13.09%	12.96%	13.52%	13.04%								
Sharpe Ratio	0.87	0.76	0.87	0.85	0.64	0.80								

Source: Compustat.

EXHIBIT 4

SRI Value Performance Summary—Risk/Reward Structure

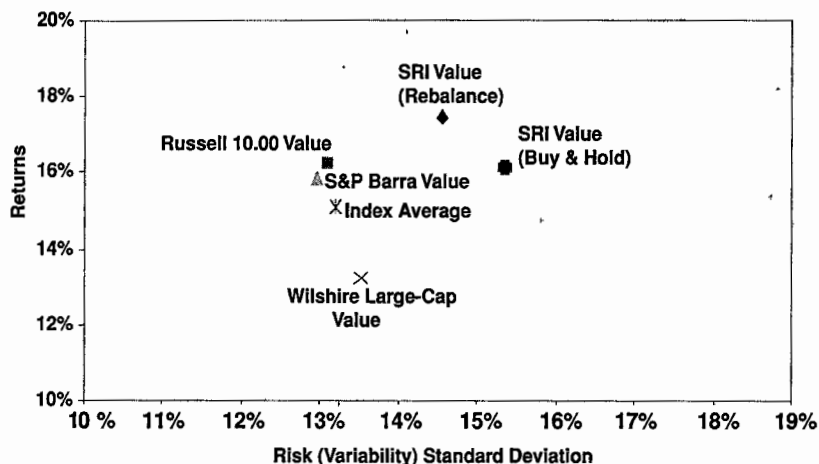
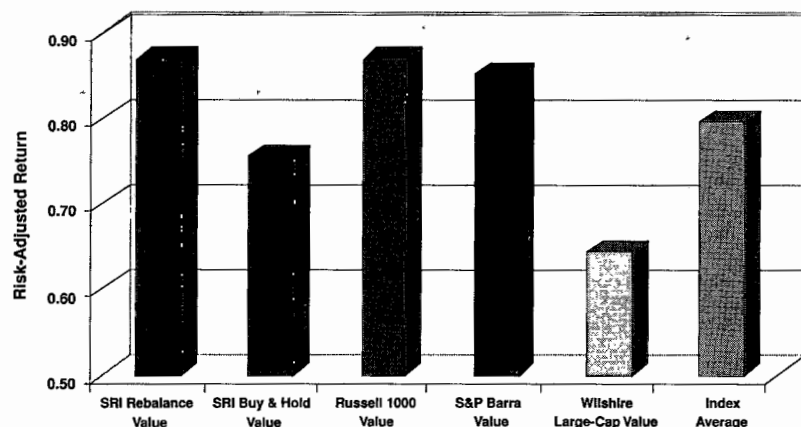


EXHIBIT 5

SRI Value Performance Summary— Sharpe Ratio Since Inception (3Q1990)



Performance

The results for both strategies are tabulated in Exhibits 2 and 3 and graphed in Exhibits 4 and 5. The results for the rebalance strategy are very encouraging. The average annualized return is 17.45% for this strategy, which exceeds the average of 15.10% for the three value benchmarks. The performance is also superior on a risk-adjusted basis. Although the average yearly standard deviation is slightly higher than the benchmarks, the higher returns more than compensate for the additional risk, as

the Sharpe ratio is 0.87 versus an average of 0.80.

The nominal performance for the buy-and-hold strategy is also superior, with an annualized average return of 16.15% compared to the value benchmark average of 15.10%. The volatility is once again also higher than the other strategies. In this case, however, the returns are not high enough to compensate for the additional volatility; on a risk-adjusted basis, the performance of the buy-and-hold strategy is below-average, with a Sharpe ratio of 0.76 versus 0.80 for the indexes.

Bear in mind, though, that performance is very much a function of the time period measured, and results could have differed (in either direction) over different holding periods for this strategy. Our analysis considers only a strategy originating at the time of the DSI's inception.

Diversification and Sector Weightings

Interesting observations can also be made concerning portfolio diversification. First, both strategies result in a fairly sizable number of stocks. The rebalance strategy involves an average number of 177 stocks over the entire period (even though this strategy assumes no transaction costs, portfolio turnover was rather low—averaging 28.46%; see Exhibit 6). The buy-and-hold strategy has an average of 120 stocks over the holding period. Only 20 of the original 130 buy-and-

hold stocks were eliminated over the testing period because of their removal from the Domini index.

It bears mentioning that the average number of stocks for both strategies might have been higher if it were not for the effect of certain stocks that have merged or been acquired since the DSI's inception date, and for which data are therefore no longer available in the Compustat database. For instance, although the average number of stocks in the rebalance strategy is 177 over the entire 39-quarter period, the average number for the last 19 quarters (Q4 1995-Q1 2000) is 232. In the very last

EXHIBIT 6

Yearly Turnover Rate—Rebalance

	Sell	Buy	Total Cap Sell	Total Cap Buy	Ave. Cap Sell&Buy	Ave. Total Cap.	Ave. Total Cap. Turnover Rate
1991	45	40	53,789.46	90,967.54	72,378.50	303,452.93	23.85%
1992	53	20	95,880.50	39,585.13	67,732.82	316,067.15	21.43%
1993	28	48	59,508.47	269,409.76	164,459.11	409,045.18	40.21%
1994	26	60	67,309.33	201,372.59	134,340.96	574,957.17	23.37%
1995	28	70	166,199.06	218,712.34	192,455.70	706,924.47	27.22%
1996	44	51	152,034.68	240,436.78	196,235.73	858,939.02	22.85%
1997	46	52	229,031.77	545,198.96	387,115.37	1,174,950.88	32.95%
1998	23	97	354,628.28	1,083,234.89	718,931.58	1,901,005.54	37.82%
1999	81	102	579,674.53	735,170.21	657,422.37	2,487,966.65	26.42%
Average	42	60	195,339.56	380,454.24	287,896.90	970,367.66	28.46%

Source: Compustat.

EXHIBIT 7

Rebalancing Strategy—Sector Weightings

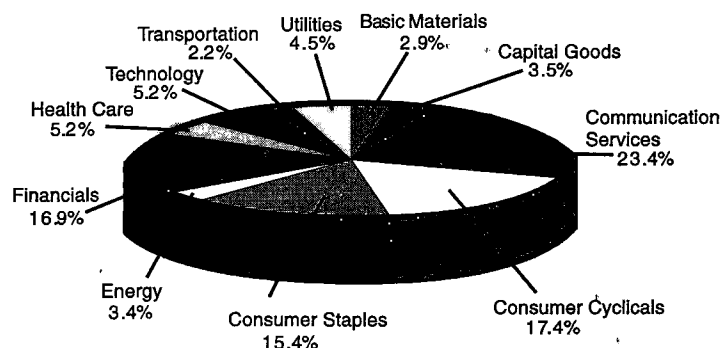
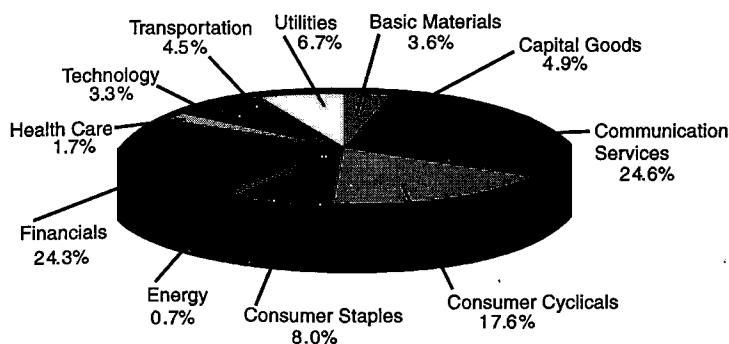


EXHIBIT 8

Buy-and-Hold Strategy—Sector Weightings



quarter analyzed, Q1 2000, there were 302 stocks in the portfolio.

Diversification is also apparent in terms of sector weightings (Exhibits 7-9). Interestingly, in both strategies, the three most dominant sectors on a market capitalization-weighted basis are, in rank order, communication services, consumer cyclicals, and financials. It was thus possible to create a diversified value portfolio with minimal exposure to heavy industrial cyclical companies. In the rebalance strategy, basic materials and capital goods companies constitute an average weight of only 6.44%; in the buy-and-hold strategy, the average weight is 8.60%.

Stock Characteristics and Volatility

The average characteristics of the stocks in both strategies confirm a consistent value orientation. As Exhibit 9 shows, the stocks have average valuation levels below that of the S&P (except for a higher-than-average dividend yield, which is a typical characteristic of value stocks). Compared to the S&P, the price-to-earnings differential for both strategies is not as great as that of the other valuation metrics; one possible explanation is the distorting effect of depressed earnings levels for many value stocks (e.g., an abnormally low denominator artificially inflates the P-E ratio). Furthermore, our analysis uses reported earnings, not operating earnings; the former are often subject to non-recurring charges (thus, again, artificially inflating P-E ratios). Notably, the average market capitalization is lower in both cases than the S&P 500. Our only possible explanation is that, over the test period, the S&P 500 became

EXHIBIT 9

SRI/S&P 500 Characteristics Comparison

	Rebalance	Buy & Hold	S&P 500
Average # Stocks	177	120	500
Median Cap*	2.10B	2.07B	7.7B
P/E	19.76	18.13	22.36
Yield	2.99	3.07	2.37
Dividend Payout	51.35	51.89	49.42
Price/Book	3.28	2.93	4.56
ROE	16.71	15.99	19.59
Beta	0.97	1.03	1.00
Price/CF	11.64	9.89	15.61

*As of 3/31/00.

Average characteristics for study period.

increasingly dominated on a proportional basis by the largest-capitalization issues—many of which do not qualify as value stocks.

In an attempt to explain both strategies' higher volatility relative to the indexes, we examine quarters where performance deviated noticeably from that of the benchmarks: 6 out of the 39 quarters studied (3Q 1990, 1Q 1991, 2Q 1997, 3Q 1998, 4Q 1998, and 3Q 1999), which are two standard deviations from the average. Not surprisingly, major contributors to and detractors from performance came from higher-weighted sectors, namely, telecommunications, finance, and consumer cyclicals.

The telecommunications sector, in particular, seems to have had a disproportionate amount of influence during these periods. It is only speculative to say this may have been the possible effect of deregulation and consolidation in both the telecommunications and financial services sectors. Volatility in the financial services sector may be attributed to massive credit problems in the industry in the early 1990s, followed by a dramatic resurgence in profitability levels.

CONCLUSION

This report provides some initial evidence that socially responsible investing is *style-neutral*. Specifically, it appears SRI can provide competitive returns to both growth and value style managers relative to their respective benchmarks. At the very least, a passive value style SRI approach does not seem to incur a significant cost.

It merits reiterating that both the strategies in our analysis are strictly mechanical and quantitative in nature.

Risk-adjusted returns might be improved by qualitative fundamental analysis and hence more stringent stock selection, as well as by active sector weightings.

The performance of our value-oriented screened accounts over time has been in line with our overall composite. This is consistent with Kurtz's finding that "money managers who have handled both screened and unscreened accounts for many years report that, over time, the performance of these accounts does not differ materially." Kurtz cites substantiating research that "finds no difference in returns between screened and unscreened mutual funds" [1997, pp. 37-38].

Finally, it appears entirely possible to create a consistently *diversified* subset of value stocks from the Domini index. Obviously, socially responsible investors are not necessarily limited to the SRI indexes, as there may be many other potentially attractive value stocks outside this universe that qualify as "socially responsible," depending on a particular client's screening parameters.

REFERENCES

- Antilla, Susan. "Can No-Sin Stocks Sustain Sudden Success?" *Bloomberg NewsWire*, New York, February 3, 1999.
- DiBartolomeo, Dan. "Explaining and Controlling the Returns on Socially Screened U.S. Equity Portfolios." Presentation to New York Society of Security Analysts, September 10, 1996.
- Goldstein, Michael, et al. "Bernstein Disciplined-Strategies Monitor." New York: Sanford Bernstein, January 1999.
- Kurtz, Lloyd. "No Effect, or No Net Effect? Studies on Socially Responsible Investing." *The Journal of Investing*, Winter 1997, pp. 37-49.
- Legomsky, Joanne. "Investing by Conscience is Paying Off These Days." *New York Times*, January 24, 1999.
- Maginn, John L., and Donald L. Tuttle. *Managing Investment Portfolios*. New York: Warren, Gorham & Lamont, 1983.
- Riepe, Mark W., and Singh, Vinah. "Fund Selection Is A Matter of Style." Charles Schwab & Co., 1998.
- "Social Investing Grows, but Hard Data on Benefits to Firms Remains Scant." *Wall Street Journal*, February 4, 1999, p. A1.
- Spare, Anthony. *Relative Dividend Yield*. New York: John Wiley & Sons, 1992.