Market Reaction to *Fortune’s* "100 Best Companies" in the New Millennium: An Investor Perspective

An Honors Thesis (HONRS 499)

by

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ABSTRACT

Socially responsible investing has been gaining substantial attention in recent decades with growing interest in corporate governance and employee-friendly firms. Among numerous published sources recognizing firms for social responsibility, Fortune magazine publishes an annual list of the “100 Best Companies to Work For.” Friedman (1970) argues that management should focus solely on maximizing shareholder wealth, but numerous studies are finding abnormal market reactions to the publishing of focus lists spotlighting firms. This event study adds to a growing body of literature in the field of behavioral finance, observing investors’ reaction to Fortune’s “100 Best Companies” from 2000 to 2010. Analysis of results shows significant negative returns surrounding the event date, an anomaly to previous studies.

ACKNOWLEDGEMENTS

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SECTION 1: INTRODUCTION

Socially responsible investing has been gaining substantial attention in recent decades, especially as employees' demands for higher compensation and better benefits have increased since the late-1990s. Some argue that the growing importance of human capital in the corporate world justifies the necessity for increased benefit programs. Others question the impact such programs have on bottom-line returns to shareholders. Waddock (2000), Waddock and Smith (2000), and others have documented the growing importance for a multiple-bottom-line approach to corporate practices, noting that investing in socially responsible firms often offers opportunities for increased cash flows. These studies document that an appropriate blend of socially responsible practices can positively impact internal corporate performance. However, this study observes how external stakeholders—specifically, investors—perceive and respond to information about "socially responsible" corporate practices.

The growth of pension and mutual funds has led to stronger shareholder voices at annual meetings. Some of these funds—including the California Public Employees' Retirement System, or CalPERS—have grown in their activist approach to corporate governance and social issues, even to the point of creating publicized focus lists of underperforming companies to shame them into better social and corporate practices, and thus higher returns for shareholders. Other companies have maintained a more positive approach by recognizing firms that are socially responsible and/or employee-friendly. Numerous annual focus lists such as Working Mother magazine’s list of the “100 Best Companies for Working Mothers,” Mother Jones’s “20 Best Places to Work,” and various Fortune magazine lists and surveys have been at the forefront of spotlighting companies that care for their employees.
A number of studies have observed the short-term and long-term market responses to such announcements and focus lists. Findings have varied substantially as to whether investors can obtain abnormal returns over the market or a matched sample of companies by investing in these socially responsible firms. This is where the field of behavioral finance enters the picture. Behavioral finance combines the fields of finance and psychology to observe the impact of the human mind and human behavior on asset pricing, investment purchase or divestment decisions, industry entry decisions, and countless other situations. One such branch of behavioral finance focuses on companies’ pursuit of corporate visibility. According to the efficient market hypothesis (EMH), markets are semi-strong-form efficient, accurately reflecting all historic and current public information. Clayman (1987, 1994), Filbeck and Preece (2003a, 2003b), Filbeck (1997, 2001), Brammer, Brooks, and Pavelin (2004), Urrutia and Vu (1999), and many others have raised questions as to whether the element of human behavior in the investment world can lead to inaccurate pricing of securities over the short or long term. Numerous financial experts have observed anomalies that seem to disprove the EMH. If anything, they at least draw the theory’s exclusive statements into the open to expose prolonged market inefficiencies.

The purpose of this study is to determine investors’ immediate reaction to “visible” socially responsible firms. The primary focus is the list of companies Fortune magazine recognizes as the “100 Best Companies to Work For” from 2000 to 2010. Do investors agree with socially responsible investment (SRI) principles which suggest that companies who care for employees will also offer higher returns to shareholders? Or do investors anticipate lower bottom lines as a result of higher costs for being socially responsible and providing employee benefits? How does increased corporate visibility impact investors’ strategies? These central questions discussed in this study will be key issues of debate in the coming decades. The
implications of these findings could not only influence investment strategy but also whether corporate officers should even consider pursuing recognition (including acknowledgement for being an employee-friendly firm). Findings thus far have shown that while positive and negative information has little impact on returns, a lack of visibility leads to decreased returns (Brammer et al., 2004). This implies that companies must pursue opportunities for visibility (including publicity through independent companies if recognition for current corporate practices is not already present) even if such visibility will not prove profitable for investors.

The remainder of this study begins by providing a literature review of studies related to investor behavior, corporate visibility, and social responsibility followed by an overview of Fortune’s “100 Best Companies to Work For.” This is followed by the study’s hypothesis and an explanation of the data set and research methodology. The next section explains results and findings, and concluding thoughts are provided at the end.

SECTION 2: LITERATURE REVIEW

Section 2.1: Investor Behavior, Corporate Visibility, and Social Responsibility

There is a growing body of research related to various aspects of behavioral finance. Some studies have focused more on the psychological element of investing, observing that many investors seem to neglect hard financial data and react to irrelevant information. Fisher Black in his article entitled “Noise” poses two different groups of investors: information traders and noise traders (1986). Information traders are investors that hear a piece of information and appropriately respond by trading. Noise traders hear a piece of “noise”—thinking that it is true information—and inappropriately respond by trading. The development of noise trading theory is critical to the study of behavioral finance. Black argues the markets would not be efficient and
that asset prices across all asset classes would be completely predictable if it were not for noise traders. Information traders must always have an investor on the opposite side of the trade to make the transaction. If that second investor has the same information as the information trader, the transaction will not take place. Since it is often the result of the transaction (i.e. the ex post return on investment) that signals whether the data is information or noise, investors are always uncertain as to whether they are trading on valid or noisy information. Hong and Stein (1999) continued with Black’s hypothesis that two different sets of investors exist: “newswatchers” and “momentum traders.” They find that such a dichotomy leads to substantial over- and underreaction to news over longer event horizons. Black (1986) and Hong and Stein (1999) both set the background for this current study.

Bikhchandani and Hirshleifer (1998) conducted a study to observe individuals' responses to signals and the actions of others. Their findings directly relate to investor behavior, explaining the phenomenon of herding on market information. Huberman (2001) observed that large percentages of regional telephone companies’ shares are held by local or regional investors. These investors reject sound principles of risk management and diversification for familiarity. Investors also have inconsistent investment forecasts between surveys where companies’ names are provided compared to surveys that only contain corporate characteristics, such as market capitalization (Statman, 2010).

Other studies observe investor over- and underreaction to information. Barberis, Shleifer, and Vishny (1998) attempted to create a model to capture these investment phenomena. They propose investors only trade in one of two regimes, moving between the two over periods of time. In the conservative regime, investors observe returns in period 1 and expect the opposite to occur in period 2. The alternative is a representativeness heuristic—or trending—regime in
which investors observe period 1 returns and expect the same to occur in period 2. Veronesi (1999) argues for a different definition of conservative investor behavior, one in which investors overreact to bad news in good times and underreact to good news in bad times.

Even though investors may be aware of generally accepted financial principles such as portfolio diversification, many tend to neglect these concepts when making investment decisions, even to the point of influencing share prices and decreasing market efficiency. One such phenomenon discovered by Ball and Brown (1968) is post-earnings-announcement drift. The markets should theoretically follow a “random walk hypothesis” that supposes returns and market prices cannot be predicted. They should also fully and quickly reflect all earnings information per the efficient market hypothesis. Shleifer (2000) published a book entitled Inefficient Markets: An Introduction to Behavioral Finance that affirms issues with the efficient market hypothesis, thus opening doors to behavioral finance and these studies on post-earnings-announcement drift. Ball and Brown (1968) discovered that markets continue to adjust for at least a year following an earnings announcement. Bernard and Seyhun (1990) and Bernard and Thomas (1989, 1990) further analyzed this anomaly to determine if asset pricing models (i.e. the capital asset pricing model, or CAPM—see Sharpe, 1963) were not accounting for risk factors that explain this post-earnings-announcement behavior. Bernard and Thomas (1990) confirmed the existence of autocorrelation, an underlying pattern of wave-like increases and decreases around a central value—in this case, stock prices about their intrinsic value. Aside from this, no additional risk factors were found in the study to explain prolonged investor reaction to information. These and other attempts to create technical models for investor behavior have often proved futile.
Investor behavior related to corporate visibility has become a growing topic of discussion in the financial community; findings have been quite varied. Barber and Odean (2008) find that because individual investors’ attention as a resource is limited, they initially reduce the size of their equity screens by focusing on those companies receiving attention in the news or via some other form of visibility before screening for other financial characteristics. Market inefficiencies develop when large numbers of investors lack the time and resources to make well-informed investment decisions. Urrutia and Vu (1999) confirm the “overreaction hypothesis” that investors overreact and then subsequently retreat on both good and bad news. Their study also provides evidence for the firm advertising effect hypothesis that firms with increased visibility will see increased liquidity in trading following an announcement or publication referencing the company.

Throughout the latter part of the twentieth century and beginning of the twenty-first century, there has been heightened interest in socially responsible investing and recognizing companies for quality, employee-friendliness, and related upward investment potential. Much of this has come as a result of studies similar to Waddock and Smith (2000) which argue firms that stick to core corporate mission statements and goals and care for their employees also do well financially. Much of the interest and discussion came as rebuttal to an article by University of Chicago professor Milton Friedman published in the *New York Times Magazine*. In the article, Friedman makes a case that the sole focus of managers should be on maximizing shareholder wealth (Friedman, 1970). Any other goals create agency relationships between managers and other stakeholders and lead to decreased returns to investors. Even with such statements, books and periodicals frequently rate and rank companies based on social performance measures, leading to continued research on the shareholder benefits of socially responsible investors.
According to a book by Tom Peters and Bob Waterman entitled *In Search for Excellence* (1982), an excellent company is one that engages in continuous innovation, is large in size, and has great financial performance. Clayman (1987) and Kolodny, Laurence, and Ghosh (1989) examined whether the Peters and Waterman (1982) list of excellent companies could indeed produce higher returns for investors, initially finding they tend to “return to the mean.” In other words, companies performing well saw decreased returns while poorly-performing companies realized gains. However, upon revisiting her study and increasing the size of her data set, Clayman (1994) found contrasting results: “good” companies substantially outperformed “poor” companies. This was probably the result of a larger data set as well as different economic times. The economic climate of the 1980s looked very different than that of the early 1990s, differences that market-adjusted models may not completely eliminate. Prazasnyski and Tai (1999) found that firms receiving the Malcolm Baldridge National Quality Award (MBNQA) do not produce increase annualized shareholder wealth in excess of the market. Schadler and Eakins (2001) analyzed Merrill Lynch’s weekly focus stocks that would presumably experience significant returns over the following 12 months. These companies realized positive abnormal returns on the first day of trading after the announcement but no abnormal returns over a one-year holding period. Filbeck (2001) observed inconclusive results when comparing companies *Mother Jones* magazine selected as the “20 Best Places to Work” to both the S&P 500 Index and a matched sample. Only 8 out of 12 and 6 out of 12 annual lists outperforming the market index and matched sample, respectively, over one-, five-, and twelve-year holding periods; there was only marginal statistical significance. Anginer and Statman (2010) found that admired companies based on the *Fortune* surveys performed poorly compared to spurned companies over a one-year holding period.
On the other hand, Filbeck (1997) and Antunovich and Laster (2003) studied Fortune's list of "America's Most Admired Companies" and found these companies did in fact provide abnormal returns to investors over various holding periods from 1983 to 1994 and 1983 to 1995, respectively. Lower-ranked firms would typically be expected to outperform higher-ranked firms since lower-ranked firms have more upward potential, even with their increased risk. Fund managers might prefer to hold these companies 1) to gain higher returns if these companies perform well or 2) to blame poor performance on the company rather than the manager. These findings present anomalies to previous studies. Michelson (1999) discusses mutual fund performance for funds listed in the Forbes Honor Roll over 1-, 3-, and 5-year periods relative to the market, finding that these funds produce significantly higher returns compared to the market over the 3- and 5-year periods. According to a study by Junkin and Toth (2009), companies that saw a 5-year holding period return (HPR) of 83.3% below respective benchmark companies (-30.1% annually) prior to being listed in the CalPERS Focus List of underperforming companies saw a 5-year HPR of 12.7% above those benchmarks following publication (2.4% annually). Filbeck and Preece (2003a) and Edmans (forthcoming) looked at Fortune’s "100 Best Companies to Work For" and found the "100 Best" outperformed a matched sample over multiple holding periods, although results varied in statistical significance. Thus, findings have been inconsistent, at least over long-term holding periods.

The above literature observed various holding period returns, taking a more long-term approach to this body of research. Other analysis (similar to this study) has explored event studies, analyzing short-term market reactions surrounding publications of focus lists containing "good" or socially responsible companies. Again, results have been varied. Brammer, et al. (2004) observed companies listed in Management Today's Most Admired Firms and found
increased visibility—good or bad—had little impact on returns, and that only the absence of information led to decreased returns. Meschke (2004) followed returns of companies whose CEOs were interviewed on CNBC, finding these firms realized significant positive abnormal returns prior to and after the announcement, but cumulative negative returns for the ten days following the event. Preece and Filbeck (1999) found that investing in companies published in Working Mother magazine’s annual survey of family-friendly firms does not necessarily mean one will earn higher returns than the market or a matched sample. A later study observed a negative market response to the Working Mother announcement, showing that firms’ stock prices decrease around a 0- to 10-day event horizon surrounding the announcement date (Filbeck & Preece, 2003b). In addition to long-term holding period returns, Filbeck (2001) also looked at the market’s reaction to a Wall Street Journal article citing the Mother Jones 1997 list—a slightly negative response showing relative indifference to the information. Filbeck and Preece (2003a) continued their study of Fortune’s 1998 list of the “100 Best Companies” by observing changes in returns over a 30-day event window. They found the market initially reacts positively to the information based on their chosen event date. Filbeck and Preece’s work closely resembles this current study even though different event dates and windows were used and a smaller sample was taken.

Section 2.2: Fortune’s 100 Best Companies to Work For

The data set used in this study is the list of the “100 Best Companies to Work For.” The first list that observed was published in a book in 1984 and later revised in 1993. Fortune did not pick up publication until 1998 (Edmans, forthcoming). Robert Levering and Milt Moskowitz have written and performed the annual study and list since its beginnings in the 1980s.
magazine has partnered with the Great Place to Work Institute to compile surveys and create the list. *Fortune*'s process for compiling the list differs from other similar rankings. *Working Mother*'s list of the “100 Best Companies for Working Mothers” only surveys industry experts and company executives, leaving room for over-optimizing performance and practices. Such was the case with Sprint, where employees reported substantial differences between management reports used in the *Working Mother* survey and actual corporate practices. The *Fortune* survey to that determines the “100 Best Companies” takes a much broader approach. *Fortune* does consider various compensation programs, family care opportunities, and other items recognized by the *Working Mother* survey, but *Fortune* surveys actual employees when compiling the list (Filbeck & Preece, 2003a). Therefore, the “100 Best Companies” is a much more reliable ranking of companies than other related surveys.

The Great Places to Work Institute received employee survey responses from an average of over 350 companies from 2006 to 2011. According to the most recent selection criteria, about two-thirds of a company’s score in determining list placement is based on the results of this Institute’s Trust Index survey sent to employees. The *Fortune* list’s authors state, “the survey asks questions related to their attitudes about management’s credibility, job satisfaction, and camaraderie” (Levering & Moskowitz, 2011). The remaining third of the score is based on management’s survey responses regarding “pay and benefit programs...hiring practices, internal communication, training, recognition programs, and diversity efforts.” To be eligible, companies must be at least seven years old and must have at least 1,000 U.S. employees.

*Fortune* typically publishes the “100 Best Companies” list its January or February issue. Some sources report an earlier release of information, perhaps three weeks before the magazine date (Filbeck & Preece, 2003a) up to a week before the magazine date (Edmans, forthcoming),
but release dates are hard to pinpoint, as information could leak well in advance of the announcement. The selection of an event date for this study will be discussed in a later section.

**SECTION 3: HYPOTHESIS, DATA SET, AND METHODOLOGY**

*Section 3.1: Hypothesis*

This study poses the following question: Does the market react to the publication of *Fortune* magazine’s list of the “100 Best Companies to Work For”, and if so, does it react positively or negatively to the information? Investors are likely to respond negatively to this information, taking a pessimistic view toward socially responsible investing as they refuse to value intangibles such as human capital in corporate valuation models. While improved benefit programs might increase employee productivity leading to higher revenues, one should probably anticipate a lower bottom line and decreased returns to shareholders due to additional expenses incurred in implementing various employee benefit programs. Therefore, this study anticipates a negative response. Such results would uphold findings of Filbeck and Preece (2003b) but would be contrary to returns seen in Filbeck and Preece (2003a) and a relatively neutral response in Filbeck (2001). It is also probable that some level of information leakage will occur prior to the event date since Filbeck and Preece (2003a) and Edmans (forthcoming) cite evidence for list announcement prior to the magazine date.

*Section 3.2: Data Set and Methodology*

As mentioned before, this study analyzes *Fortune* magazine’s annual list of the “100 Best Companies to Work For.” The data set was created by compiling lists from 2000 through 2011 and gathering CUSIP numbers for all possible companies. For the purpose of this study, each
time a company is listed is treated as a separate "security-event," and the study only observes publically traded companies. Out of the 1,200 companies/event occurrences, only 599 had CUSIP numbers available, and of those only 496 security-events had usable returns available on the CRSP Daily Combined Return File. Data was not yet available in the CRSP database for 2011 returns, thus accounting for the sharp decline in usable security-events. Thus, the final data set only includes *Fortune*'s "100 Best Companies" lists from 2000 through 2010, still providing a broad sample set to analyze.

The study set the event date each year (\( t = 0 \)) at the magazine date when the list was published.\(^1\) The 2003 *Fortune* magazine date is January 20, 2003, which was Martin Luther King Day; the markets are closed on this holiday, so the event date for that year was moved to the next trading day on January 21, 2003. The estimation period for parameter estimates lasted 200 days and ended 46 days before the event—in other words, \([-246, -46]\)— and the event window for estimated returns was \([-30, 30]\). Such an estimation period allows good estimates of \( \alpha \) and \( \beta \) (discussed later) by drawing from a long sample but still narrow enough to avoid too much noise that could distort estimates. Table 1 lists each event date and the number of security-events per year that meet the above criteria.

The next section discusses each of the following sets of results: the first compares raw, unadjusted returns each day in the event window and for various segmented windows; the second set looks at market-adjusted returns; the third compares returns based on a basic market model; the fourth, a market model incorporating the Scholes-Williams estimate of \( \beta \); and the fifth

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\(^1\) Filbeck and Preece (2003a) set an event date 3 weeks prior to the magazine date in which the "100 Best Companies" appeared in addition to studying a smaller event window: \([-15, 15]\). Filbeck and Preece (2003a) noted the difficulty of setting a specific event date, so this study creates a wider event window and study a larger pool of companies. This study used the date on the magazine publication as the event date and observed a much larger event window of \([-30, 30]\).
Table 1

*Fortune*'s "100 Best Companies to Work For" Release Dates

<table>
<thead>
<tr>
<th>Event date ((t = 0))</th>
<th>Number of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 10, 2000</td>
<td>45</td>
</tr>
<tr>
<td>January 8, 2001</td>
<td>45</td>
</tr>
<tr>
<td>February 4, 2002</td>
<td>45</td>
</tr>
<tr>
<td>January 21, 2003</td>
<td>53</td>
</tr>
<tr>
<td>January 12, 2004</td>
<td>50</td>
</tr>
<tr>
<td>January 24, 2005</td>
<td>53</td>
</tr>
<tr>
<td>January 23, 2006</td>
<td>45</td>
</tr>
<tr>
<td>January 22, 2007</td>
<td>43</td>
</tr>
<tr>
<td>February 4, 2008</td>
<td>41</td>
</tr>
<tr>
<td>February 2, 2009</td>
<td>40</td>
</tr>
<tr>
<td>February 8, 2010</td>
<td>36</td>
</tr>
</tbody>
</table>

analyzing comparison-period mean-adjusted returns. The CRSP equally weighted market
index—an index of all NYSE, AMEX, and NASDAQ stocks—was the market index of choice
for this study.

The data was culled using Eventus, a statistical software package that “performs event
studies using CRSP stock database or user-collected data” (2007). The software locates a
designated list of companies, each set with a specific event date, and gathers and analyzes returns
over various event windows—specifically those from the daily stock return file. Each model
mentioned above and explained in the results section was created and analyzed through the
Eventus software package.

**SECTION 4: RESULTS**

The results of the study were consistent with the hypothesis: investors respond
negatively to the publication of *Fortune*'s "100 Best Companies." Five separate sets of results
were culled for measuring and comparing average and abnormal returns over the event window:
raw, unadjusted returns; market-adjusted returns; a basic market model; the Scholes-Williams market model; and comparison-period mean-adjusted returns. The discussion below explores each model in turn.

The first set of results compares raw, unadjusted returns each day in the event window and for various segmented windows:

\[ A_{j,t} = R_{j,t} \]

where \( A_{j,t} \) is the abnormal return on security \( j \) at time \( t \), and

\[ R_{j,t} \] is the return on security \( j \) at time \( t \).

Table 2 provides returns over various event windows.

Table 2

<table>
<thead>
<tr>
<th>Days</th>
<th>Mean Cumulative Abnormal Return</th>
<th>Precision Weighted CAAR</th>
<th>Positive: Negative</th>
<th>Patell Z</th>
<th>p-value</th>
<th>Portfolio Time-Series (CDA) t</th>
<th>p-value</th>
<th>Generalized Sign Z</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-30, -2)</td>
<td>0.28%</td>
<td>0.32%</td>
<td>253:243</td>
<td>0.513</td>
<td>0.3039</td>
<td>0.104</td>
<td>0.4587</td>
<td>0.691</td>
<td>0.2448</td>
</tr>
<tr>
<td>(-1, 0)</td>
<td>-1.31%</td>
<td>-1.34%</td>
<td>158:338</td>
<td>-8.079</td>
<td>&lt;.0001</td>
<td>-1.828</td>
<td>0.0338</td>
<td>-7.841</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>(+1, +30)</td>
<td>1.87%</td>
<td>2.27%</td>
<td>275:221</td>
<td>3.53</td>
<td>0.0002</td>
<td>0.674</td>
<td>0.2502</td>
<td>2.667</td>
<td>0.0038</td>
</tr>
<tr>
<td>(-15, +15)</td>
<td>-0.48%</td>
<td>0.13%</td>
<td>245:251</td>
<td>0.205</td>
<td>0.4189</td>
<td>-0.17</td>
<td>0.4326</td>
<td>-0.027</td>
<td>0.4891</td>
</tr>
<tr>
<td>(-5, +5)</td>
<td>-0.27%</td>
<td>-0.32%</td>
<td>236:260</td>
<td>-0.834</td>
<td>0.2022</td>
<td>-0.161</td>
<td>0.4361</td>
<td>-0.836</td>
<td>0.2017</td>
</tr>
<tr>
<td>(-30, +30)</td>
<td>0.84%</td>
<td>1.25%</td>
<td>257:239</td>
<td>1.367</td>
<td>0.0858</td>
<td>0.213</td>
<td>0.4156</td>
<td>1.05</td>
<td>0.1468</td>
</tr>
</tbody>
</table>

Note. The symbols (,<<,<< or ),>>,>>>,>>> show the direction and generic one-tail significance of the generalized sign test at the 0.10, 0.05, 0.01 and 0.001 levels, respectively.
The second set of results looks at market-adjusted returns:
\[ A_{j,t} = R_{j,t} - R_{m,t} \]

where \( R_{m,t} \) is the return on the CRSP equally-weighted market index at time \( t \).

Event window returns are given in Table 3.

Table 3
Market-adjusted returns over various event windows – *Fortune’s “100 Best Companies to Work For” 2000-2010*

<table>
<thead>
<tr>
<th>Days</th>
<th>Mean Cumulative Abnormal Return</th>
<th>Precision Weighted CAAR</th>
<th>Positive: Negative</th>
<th>Patell Z</th>
<th>p-value</th>
<th>Portfolio Time-Series (CDA) t</th>
<th>p-value</th>
<th>Generalized Sign Z</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-30, -2)</td>
<td>-3.40%</td>
<td>-4.07%</td>
<td>165:331</td>
<td>-7.353</td>
<td>&lt;.0001</td>
<td>-2.715</td>
<td>0.0033</td>
<td>-6.78</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>(-1, 0)</td>
<td>-1.06%</td>
<td>-1.16%</td>
<td>178:318</td>
<td>-7.977</td>
<td>&lt;.0001</td>
<td>-3.22</td>
<td>0.0006</td>
<td>-5.612</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>(+1, +30)</td>
<td>-1.11%</td>
<td>-0.63%</td>
<td>240:256</td>
<td>-1.117</td>
<td>0.132</td>
<td>-0.872</td>
<td>0.1917</td>
<td>-0.042</td>
<td>0.4834</td>
</tr>
<tr>
<td>(-15, +15)</td>
<td>-3.52%</td>
<td>-3.68%</td>
<td>190:306</td>
<td>-6.436</td>
<td>&lt;.0001</td>
<td>-2.711</td>
<td>0.0034</td>
<td>-4.534</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>(-5, +5)</td>
<td>-3.76%</td>
<td>-3.80%</td>
<td>165:331</td>
<td>-11.159</td>
<td>&lt;.0001</td>
<td>-4.866</td>
<td>&lt;.0001</td>
<td>-6.78</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>(-30, +30)</td>
<td>-5.58%</td>
<td>-5.86%</td>
<td>185:311</td>
<td>-7.298</td>
<td>&lt;.0001</td>
<td>-3.066</td>
<td>0.0011</td>
<td>-4.983</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>

Note. See Table 2 for statistical significance symbols.

The third set of results is obtained by creating a market model, first by regressing the following equation to obtain estimates of \( \alpha_j \) and \( \beta_j \):

\[ R_{j,t} = \alpha_j + \beta_j R_{m,t} + \varepsilon_{j,t} \]

where \( \alpha_j \) is the active return on investment,

\( \beta_j \) is the beta of the security, a parameter measuring the sensitivity of \( R_{j,t} \) to the market index, and
\( \varepsilon_{j,t} \) is the error term—a random variable that must have an expected value of 0 and is uncorrelated with \( R_{m,t} \).

Abnormal returns were then computed for the basic market model using the following equation:

\[
A_{j,t} = R_{j,t} - [\hat{\alpha}_j + \hat{\beta}_j(R_{m,t})]
\]

where \( \hat{\alpha}_j \) and \( \hat{\beta}_j \) are ordinary least squares estimates of \( \alpha_j \) and \( \beta_j \).

Table 4 provides event window returns.

Table 4

<table>
<thead>
<tr>
<th>Days</th>
<th>Mean Cumulative Abnormal Return</th>
<th>Precision Weighted CAAR</th>
<th>Positive: Negative</th>
<th>Patell Z</th>
<th>p-value</th>
<th>Portfolio Time-Series (CDA) t</th>
<th>p-value</th>
<th>Generalized Sign Z</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-30, -2)</td>
<td>-5.28%</td>
<td>-4.42%</td>
<td>152:344&lt;&lt;&lt;</td>
<td>-10.044</td>
<td>&lt;.0001</td>
<td>-4.779</td>
<td>&lt;.0001</td>
<td>-7.83</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>(-1, 0)</td>
<td>-1.19%</td>
<td>-1.05%</td>
<td>172:324&lt;&lt;&lt;</td>
<td>-9.1</td>
<td>&lt;.0001</td>
<td>-4.091</td>
<td>&lt;.0001</td>
<td>-6.033</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>(+1, +30)</td>
<td>-2.40%</td>
<td>-0.96%</td>
<td>251:245</td>
<td>-2.157</td>
<td>0.0155</td>
<td>-2.134</td>
<td>0.0164</td>
<td>1.066</td>
<td>0.1431</td>
</tr>
<tr>
<td>(-15, +15)</td>
<td>-5.33%</td>
<td>-4.03%</td>
<td>190:306&lt;&lt;&lt;</td>
<td>-8.859</td>
<td>&lt;.0001</td>
<td>-4.66</td>
<td>&lt;.0001</td>
<td>-4.415</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>(-5, +5)</td>
<td>-4.86%</td>
<td>-3.63%</td>
<td>143:353&lt;&lt;&lt;</td>
<td>-13.394</td>
<td>&lt;.0001</td>
<td>-7.141</td>
<td>&lt;.0001</td>
<td>-8.639</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>(-30, +30)</td>
<td>-8.87%</td>
<td>-6.44%</td>
<td>181:315&lt;&lt;&lt;</td>
<td>-10.086</td>
<td>&lt;.0001</td>
<td>-5.533</td>
<td>&lt;.0001</td>
<td>-5.224</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>

Note. See Table 2 for statistical significance symbols.

The fourth model incorporates Scholes and Williams’ (1977) method of estimating \( \beta \). In their model, estimated \( \beta \) is calculated by comparing security returns with and estimation of the market return based on a 3-day moving average of returns surrounding the event date. The Scholes-Williams \( \beta \) estimation also incorporates an estimation of the first-order autocorrelation.
of the return on the market. The same equation used to compute abnormal returns for the basic market model is then used for this model. Table 5 gives returns over various event windows for the market model based on the Scholes-Williams \( \beta \) estimation.

Table 5

Scholes-Williams market model abnormal returns over various event windows – *Fortune’s “100 Best Companies to Work For” 2000-2010*

<table>
<thead>
<tr>
<th>Days</th>
<th>Mean Cumulative Abnormal Return</th>
<th>Precision Weighted CAAR</th>
<th>Positive: Negative</th>
<th>Patell Z</th>
<th>p-value</th>
<th>Portfolio Time-Series (CDA) t</th>
<th>p-value</th>
<th>Generalized Sign Z</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-30, -2)</td>
<td>-4.81%</td>
<td>-3.99%</td>
<td>156:340 &lt;&lt;&lt;</td>
<td>-8.993</td>
<td>&lt;.0001</td>
<td>-4.084</td>
<td>&lt;.0001</td>
<td>-7.492</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>(-1, 0)</td>
<td>-1.23%</td>
<td>-1.06%</td>
<td>166:330 &lt;&lt;&lt;</td>
<td>-9.125</td>
<td>&lt;.0001</td>
<td>-3.985</td>
<td>&lt;.0001</td>
<td>-6.593</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>(+1, +30)</td>
<td>-2.21%</td>
<td>-0.96%</td>
<td>246:250</td>
<td>-2.126</td>
<td>0.0167</td>
<td>-1.844</td>
<td>0.0326</td>
<td>0.595</td>
<td>0.2759</td>
</tr>
<tr>
<td>(-15, +15)</td>
<td>-4.89%</td>
<td>-3.60%</td>
<td>195:301 &lt;&lt;&lt;</td>
<td>-7.838</td>
<td>&lt;.0001</td>
<td>-4.014</td>
<td>&lt;.0001</td>
<td>-3.988</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>(-5, +5)</td>
<td>-4.20%</td>
<td>-3.10%</td>
<td>154:342 &lt;&lt;&lt;</td>
<td>-11.356</td>
<td>&lt;.0001</td>
<td>-5.791</td>
<td>&lt;.0001</td>
<td>-7.672</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>(-30, +30)</td>
<td>-8.25%</td>
<td>-6.01%</td>
<td>190:306 &lt;&lt;&lt;</td>
<td>-9.344</td>
<td>&lt;.0001</td>
<td>-4.831</td>
<td>&lt;.0001</td>
<td>-4.437</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>

*Note. See Table 2 for statistical significance symbols.*

The last model examined comparison-period mean adjusted returns, where the arithmetic mean return \( \bar{R}_j \) for each security is computed based on returns over the estimation period [-246, -46]. The following equation computes the abnormal returns for the data set:

\[
A_{j,t} = R_{j,t} - \bar{R}_j.
\]

Table 6 shows returns over different event windows.
Table 6
Comparison-Period Mean Adjusted Returns over various event windows – *Fortune*’s “100 Best Companies to Work For” 2000-2010

<table>
<thead>
<tr>
<th>Days</th>
<th>Mean Cumulative Abnormal Return</th>
<th>Precision Weighted CAAR</th>
<th>Positive: Negative</th>
<th>Patell Z</th>
<th>p-value</th>
<th>Portfolio Time-Series (CDA) t</th>
<th>p-value</th>
<th>Generalized Sign Z</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-30, -2)</td>
<td>-1.66%</td>
<td>-2.01%</td>
<td>216:280&lt;</td>
<td>-3.193</td>
<td>0.0007</td>
<td>-0.608</td>
<td>0.2717</td>
<td>-2.208</td>
<td>0.0136</td>
</tr>
<tr>
<td>(-1, 0)</td>
<td>-1.44%</td>
<td>-1.50%</td>
<td>144:352&lt;&lt;&lt;</td>
<td>-9.052</td>
<td>&lt;.0001</td>
<td>-2.015</td>
<td>0.022</td>
<td>-8.676</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>(+1, +30)</td>
<td>-0.14%</td>
<td>-0.15%</td>
<td>247:249</td>
<td>-0.239</td>
<td>0.4057</td>
<td>-0.05</td>
<td>0.4801</td>
<td>0.578</td>
<td>0.2818</td>
</tr>
<tr>
<td>(-15, +15)</td>
<td>-2.55%</td>
<td>-2.37%</td>
<td>201:295&lt;&lt;&lt;</td>
<td>-3.627</td>
<td>0.0001</td>
<td>-0.906</td>
<td>0.1826</td>
<td>-3.555</td>
<td>0.0002</td>
</tr>
<tr>
<td>(-5, +5)</td>
<td>-1.01%</td>
<td>-1.21%</td>
<td>207:289&lt;</td>
<td>-3.116</td>
<td>0.0009</td>
<td>-0.599</td>
<td>0.2746</td>
<td>-3.016</td>
<td>0.0013</td>
</tr>
<tr>
<td>(-30, +30)</td>
<td>-3.24%</td>
<td>-3.67%</td>
<td>206:290&lt;&lt;&lt;</td>
<td>-4.008</td>
<td>&lt;.0001</td>
<td>-0.819</td>
<td>0.2065</td>
<td>-3.106</td>
<td>0.001</td>
</tr>
</tbody>
</table>

*Note.* See Table 2 for statistical significance symbols.

As mentioned before, the results for the study were consistent with this study’s hypothesis that the market would react negatively to the publication of *Fortune*’s list of the “100 Best Companies to Work For.” While the raw, unadjusted returns were not significantly negative (aside from the period [-1, 0] that saw 338 out of the 496 companies have negative returns, significant at the 0.1% level), all other models showed significantly negative returns in most event windows, including the full [-30, 30] window. In each of the four models (excluding raw, unadjusted returns), between 58% and 64% of companies realized negative abnormal returns, significant at the 0.1% level. In the [-30, -2] window, which incorporates a portion of the Filbeck and Preece (2003a) study’s event window, mean cumulative abnormal returns are -5.28%, -4.81%, and -3.40% for the basic market model, the Scholes-Williams market model, and the market-adjusted returns model, respectively. This demonstrates a definitively negative
market response to the list’s announcement. In all five models, over 64% of companies realized negative returns—at least 318 companies out of 496 studied—a clear negative anticipation the day before the magazine date. Abnormal returns over the last half of the study over the [1, 30] window were not as low as for other periods, but this could mean the market had adequately incorporated all information prior to the magazine date.

SECTION 5: CONCLUSION

All in all, the returns clearly accept the hypothesis that the market negatively reacts to the publishing of Fortune’s “100 Best Companies.” There are various explanations for such findings. If news of companies’ placement on the list leaked prior to the event window and the market positively overreacted to the information, the window would only account for the correction in valuation following the initial overreaction. However, the clearest assumption based on these findings is that shareholders perceive employee-friendly firms to be detrimental to maximizing their wealth. It seems that investors assume funds directed toward employee benefit programs directly reduce the company’s bottom line and ultimately decrease returns to shareholders.

Further studies need to be conducted on other related corporate visibility studies before drawing definitive conclusions. However, this study presents a significant anomaly to the Filbeck and Preece (2003a) study demonstrating positive market reaction to the announcement and adds to a growing body of literature on corporate visibility and socially responsible investing. Variations of this study can also be performed to further analyze this particular data set. It might be appropriate to create a matched sample of companies or measure returns against another market index given the nature and characteristics of firms within the data set. Since an
exact event date is uncertain, it might be wise to increase the size of the event window to [-45, 30] and analyze more subsets of the window to find a more specific event date and account for any additional information leakage that might occur.
References


