

# Corporate Social Responsibility (CSR) and Firm Performance

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The discourse of corporate social responsibility (CSR) has grown rapidly over the last decade. There are different views of the role of the firm in a society and disagreements as to whether wealth maximization should be the sole goal of a corporation. There is also a debate on whether CSR practices are beneficial for firms. Studies examining the performance of firms that have adopted a CSR policy within a range of sectors in various countries provide inconsistent results. Some studies show excess returns among companies adopting a CSR policy relative to the companies that do not adopt such a policy, while others do not find differences in returns. To further dispel the ambiguity on this issue, the authors explore the relationship between CSR adoption and financial performance of firms' shares in Israeli market, with a US market benchmark as a test of specificity. The findings reveal that no significant difference exists between the performance of firms adopting a CSR policy and firms that do not. Thus, the inclusion of investments in socially-responsible firms in an investor's portfolio does not appear to significantly impact the portfolio's performance. Managers and investors interested in investing in CSR may do so without any concern of the lower returns or performance. This study provides an additional support for the CSR School in that its findings indicate that, on the one hand, investments in firms that integrate social and environmental responsibility are just "as good as" investments in firms that do not. On the other hand, such investments can be seen as superior, since in addition to the financial returns, investors contribute to changing the face of the global environment and are creating a system for support and enforcement that ensures the existence of a better world for the children in the present and future.

*Keywords:* corporate social responsibility (CSR), firm value, performance, return

## Introduction

Corporate social responsibility (CSR) has become a prominent feature in the modern economic jargon and is of interest to both academics and practitioners. This concept was defined by the World Business Council for Sustainable Development (WBCSD)<sup>1</sup>, namely, "CSR is the task of a business to contribute to sustainable economic development, working together with workers, their families, the local community, and society in general to improve quality of life"<sup>2</sup>.

In fact, there are opposing views of CSR. The first was put forward by the well-known economist Milton Friedman (1970), who maintained that CSR was expressed as the maximization of a firm's profit, while

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<sup>1</sup> The World Business Council for Sustainable Development (WBCSD) is a coalition of 160 international companies that have declared their commitments to a sustainable development.

<sup>2</sup> Retrieved from <http://www.wbcd.org>.

adhering to the laws of the country as well as the basic ethical procedures that were standard in a society. This is supposed to be implemented, in fact, by managers of the firm, who serve as agents appointed by those at the top of the pyramid—the firm's owners. Generally, the interpretation of this approach is that managers have to focus on the interests of the firm's owners, and thus, they should not "waste" the firm's money on behalf of the general social interest.

In contrast with Friedman's (1970) approach, the authors have witnessed a greater acceptance of the notion in recent years, namely, the corporation is a social, political, and ethical entity that has responsibilities towards a wider circle of stakeholders (Barkai, 2008), such as shareholders, employees, customers, and suppliers and external groups, such as associations and activists on social and environmental issues (Cohen, 2010). This perception stems from the combination of global changes that began in the 20th century, including the global growth and communications revolution. At the end of the 20th century, the balance of powers in local economies had shifted, due to these changes, as did the state's share in ensuring the welfare of its citizens. At the same time, the power wielded by the business sector, which is increasingly called on to demonstrate the social responsibility and involvement, has grown (Bar-Tsuri, 2008).

The expansion of CSR is also the result of events that have led to a demand for an appropriate conduct by corporations. Such events include, in particular, massive accounting frauds by giant corporations (e.g., Enron) and the rapid development of non-profit organizations (the "third sector") that fight corporations caring only about their profitability and ignoring social codes. Recent protests against the corporate mind-set, such as "Occupy Wall Street" in the US and the tents protest in Israel, have brought the demand for CSR deeper into firms' awareness. Beyond the economic and social processes, in modern economy, business corporations are perceived as citizens in the community, and therefore, the social involvement of the corporation is considered to be the performance of its obligation. In the modern economy, business entities should strive to combine their contributions to the society with their own business interests (Berman-Dayana, 1999). Correspondingly, an innovative philosophy has been developed, which calls for organizations to conduct themselves in a socially-responsible manner, when taking social and environmental factors into account in addition to the sole pursuit of profitability or as defined by Elkington (1994), the triple bottom line (TBL), namely, profit, people, and planet. The concept behind this approach is that, by adopting a socially-responsible agenda, corporations will also enhance their value as a function of logical coexistence with their stakeholders in the long term (Lauterbach & Kriesler, 2006).

This study examines the financial performance of shares of firms that have adopted social responsibility codes compared with firms that do not champion these codes (henceforth CSR firms and non-CSR firms respectively). Thus, the literature further provides the inconsistent evidence with respect to the impact of CSR adoption by a firm on the performance of its shares. Despite the increased implementation of CSR around the world, there is still a disagreement regarding the profitability of socially-responsible investments (SRIs) relative to other investments. Thus, the question arises as to whether the authors are looking at a case of "doing good while doing well". The lack of a consensus on the relationship between CSR and financial performance motivates the authors to further explore this issue.

The authors apply the tests on Israeli firms. The authors are interested in the Israeli case, as it has scarcely been examined before, despite the fact that CSR has become a key issue on firms' agenda in Israel in recent years. By studying a sample of US firms as well, the authors seek to examine whether the results derive from or

are dependent on the market in which the firm operates, in order to reinforce the external validity of the Israeli case.

The article proceeds as follows: Section 2 contains the background for this study and the literature review; section 3 describes the goals of this study and discusses the sample and the methodology; section 4 displays the findings and the results of analyses; and section 5 presents the conclusions.

## Literature Review

### CSR

The development of CSR as the norm and the lack of national and global legislation in this area set the stage for the creation of the panoply of rules of conduct and standards for evaluating the responsibility demonstrated by corporations, including corporate codes of conduct, sectorial agreements, and codes of conduct drafted by international organizations (Barkai, 2008). The implementations of CSR are related to various corporate practices.

**Community relations.** Planning and implementing a strategy for the relationship between the corporation and its surrounding community—a relationship that is reflected, among things, by the contribution of funds or donations in kind.

**Employee volunteering.** Community involvement includes volunteer activity and direct contact between employees of the business sector and the social sector (Zichlinsky, Averbuch, Adler, Elad, & Bar-Natan, 2008; Mullen, 1997).

**Working environment in the company and employee rights.** This aspect of CSR includes internal expressions, such as ensuring appropriate working conditions, employee compensation, professional advancement, safety, work hours, welfare of the employees and their families, and the fair treatment of employees who have been laid off and corporate retirees. It also has external expressions like increasing the diversity of firms' workforce (Zichlinsky et al., 2008).

**Environmental protection.** This component of CSR pertains to the firms' impact on the physical environment, including air, ground, and water pollution, emissions and global warming, waste and recycling, deforestation, and conservation of natural resources (Zichlinsky et al., 2008; Mullen, 1997).

**Business ethics.** This component declares and applies principles of honesty, fairness, transparency, loyalty, responsibility, integrity, and respect for others. A clear and implementable code of ethics is supposed to reflect the company's vision, values, and norms practiced in the corporate culture and to serve as an organizational compass (Kaye, 2009).

**Marketing and consumer relations.** A CSR-minded marketing activity requires considering the needs of target audiences and stakeholders. It is believed to have contributed to the success of the brand, the increase of customer loyalty, and the boosting sales (Zichlinsky et al., 2008).

**Corporate governance, reporting, and auditing.** This field relates to an advanced management philosophy that integrates social values and considerations in corporate decision making and the actual business activity. Corporate governance includes a collection of rules for corporate prudence in terms of audit and control and relates primarily to the manner, in which senior management and the board of directors independently oversee and manage the company's affairs and reports to its various direct and indirect stakeholders. Reporting and auditing, thus, require identifying and considering the needs and desires of all of the groups of stakeholders in the organization, formulate values and objectives accordingly, and set defined

targets for their performance and measurement. The results must be disclosed to the stakeholders through a social report that discloses all the impacts of the organization on the community, environment, and stakeholders. The social report's credibility is ensured through a process of quality assurance, much like the audit process that an accounting firm performs on financial statements (Zichlinsky et al., 2008).

**Supply chain.** This aspect refers to an examination of corporate processes, from the supply of raw materials, equipment, and services for the production process to the provision of finished goods to customers. An example is the prudence expected from transnational corporations with regard to the violation of human rights of employees down their supply chains in the developing nations (Shiloh, 2008). Therefore, a corporation must take responsibility for the behavior of the suppliers it works with and consider social and environmental issues, such as how they relate to human rights, environmental degradation, issues of corruption, and the like. This contributes to a reduced risk as well as to the value of the brand (Cohen, 2010).

## SRI

Along with the expansion of the notion of CSR among corporations, a consistently growing concept is developed: SRI. The Social Investment Forum (SIF) defined SRI as (as cited in Williams, 2005):

An investment process that considers the social and environmental consequences of investments, both positive and negative, within the context of rigorous financial analysis. It is a process of identifying and investing in companies that meet certain standards of corporate social responsibility. (p. 2)

Several strategies enable the implementation of SRI policy.

**Negative screening.** A process in which corporations are denied access to the ethical funds, based on the corporations' compliance or non-compliance with the negative or positive criteria they have adopted. The criteria, which have changed over the years from country to country, have included alcohol, fur trade, gambling, human rights, pornography, tobacco, etc. (Harte, Lewis, & Owen, 1991; Kreander, 2002). Presumably, the negative screening of ethics limits the financial resources of the investments, which may have an adverse effect on the performance of the investment portfolio. Therefore, one can expect to find fewer funds that perform massive negative screenings for the reason of "absolute avoidance" (Kreander, 2002).

**Positive screening.** This approach reflects the "best in class" approach, in which corporations from various sectors are ranked according to their CSR performance and funds invested in corporations with the best performance (J. Solomon, A. Solomon, & Norton, 2002). This method allows investors to invest in corporations that work "ethically", while continuing to hold a diversified portfolio of securities at the same time.

**Engagement.** Engagement is an approach that advocates a process of engagement in the corporation, in order to have an impact on its conduct and operations. This involvement may be expressed in several different ways, including an active dialog with the corporations to encourage them to operate in accordance with the principles of CSR (Shippenbauer, 2008; Kreander, 2002; Friedman & Miles, 2001).

There are various approaches of adopting strategies for the implementation of SRI. In European countries, the tendency is to conduct the negative screening with the emphasis on the ethical aspect, which includes arms trading, tobacco, and gambling. On the contrary, the tendency is to adopt a policy of positive screening in the US (Erosif, 2008). Although the total number of investment options is limited (as the institutional investors are not authorized to invest according to SRI dimensions of investments), the inherent yield of which is lower than an investment based solely on financial considerations (Shippenbauer, 2008).

Over the years, there has been a growing trend of awareness of SRI. Different industry surveys found that 14% of the total investments in the UK followed an SRI approach, and in the US, it reached 11% of all the assets under the professional financial management in the period of 2005-2007<sup>3</sup>. The trend towards SRI, in fact, encourages financial investment institutions to assess how the companies in which they invest are related to the issues of environmental protection, employee welfare, and treatment of the community, instead of restricting themselves solely to financial considerations (Pridham, 2001). The authors see an evidence of this in the 1995 pension law enacted in the UK, which requires pension funds to set out the ethical and environmental considerations they take into account, when they select and implement an investment (Schwartz, 2003).

The SRI approach considers at least one of the following: (1) social considerations, a fair treatment of suppliers and creditors, when adopting an enlightened policy towards employees with equal opportunity, non-discrimination, unlawful child labor, or neglect of social benefits; (2) environmental considerations, such as air pollution, global warming, etc.; (3) ethical considerations, such as arms trading, drugs, gambling, etc.; and (4) considerations related to corporate governance, structure of the board of directors, transparency, etc. (Hughes, 2001; PRI, 2006).

In parallel with the heightened global awareness and exposure to the SRI trend, stock exchange indices were launched as tools to present shares of firms that adopted a CSR policy. These indices include the Dow Jones Sustainability Index (DJSI<sup>4</sup>), the Good Index Series of the London Stock Exchange (FTSE4<sup>5</sup>), Domini 400 Social Index (DSI<sup>6</sup>), and the Maala Index on the Tel Aviv Stock Exchange, which is described below.

### **CSR and SRI in Israel**

To promote the application of CSR in Israel, a non-profit organization named “Maala<sup>7</sup>” was founded in 1998 (Kriesler, 2005). Its objective is to help corporations in Israel develop and implement a strategic business approach of social responsibility. Maala currently has over 80 members, local and global companies, in all industries. Maala engages in the development of new corporate responsibility models, development of the profession of corporate responsibility management and training, education and development of knowledge on the subject, increases awareness, and provides information of the subject.

Since 2003, Maala has issued an annual “Maala Ranking of Corporate Social Responsibility”. The ranking reflects the degree of firms’ CSR through a comprehensive and in-depth examination of various parameters and their implementations by the companies participating in the ranking. Maala’s ranking includes companies on

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<sup>3</sup> Retrieved from <http://www.eurosif.org/research/eurosif-sri-study/2008> and [http://www.firstaffirmative.com/pdf/Marketing/SRIUSletter\\_080502\\_FAFN.pdf](http://www.firstaffirmative.com/pdf/Marketing/SRIUSletter_080502_FAFN.pdf).

<sup>4</sup> The DJSI is cooperatively managed by Dow Jones indexes and sustainable asset management. Launched in 1999, it covers 250 of the 2,500 companies with the largest capital in the world, which represent the Top 10 of corporations, which are committed to sustainability, while integrating three aspects: economic, social, and environmental. The DJSI is divided by geographic-global distribution, North America, Europe, Asia, and the US. It provides precise and objective criteria, through which it is possible to evaluate companies that adopt sustainability dimensions and are included in the SRI portfolios (Retrieved from [http://www.sustainability-index.com/07\\_html/indexes/overview.html](http://www.sustainability-index.com/07_html/indexes/overview.html)).

<sup>5</sup> The FTSE4 Good Index was launched in 2001 by FTSE—the independent global index company. It is one of the world’s leading standards in the SRI arena. The index comprises a series of five indexes divided by various regions—global, UK, Japan, US, and Europe, such that in each of the indices includes about 50 to 100 companies (Retrieved from [http://www.ftse.com/Indices/FTSE4Good\\_Index\\_Series/Downloads/FTSE4Good\\_Inclusion\\_Criteria.pdf](http://www.ftse.com/Indices/FTSE4Good_Index_Series/Downloads/FTSE4Good_Inclusion_Criteria.pdf)).

<sup>6</sup> The DSI was launched in 1990 by Kinder, Lydenberg, and Domini (KLD) Co. Inc.. This index is a measurable variable for investments that are based on the social screening. And, in fact, DSI is the global opening salvo in the field of SRI, which incorporates three key dimensions: environmental, social, and corporate governance (Retrieved from <http://www.kld.com/indexes/ds400index/index.html>).

<sup>7</sup> Maala is the Hebrew word for virtue.

the TA-100 Index or companies with revenues of no less than \$85 million. The ranking started with only publicly-traded companies, and in 2004, it was expanded to include private companies as well. Since the launch of the ranking, there was an increase of 73% in the number of companies participating in the ranking, indicating the increasing importance of CSR standardization and rankings. The ranking of 2011 has already included 85 firms, of which 51 are publicly-traded firms and 34 are private firms.

In February 2005, another major stride took place in the realm of CSR in Israel, namely, the launch of the TA-Maala SRI Index on the Tel-Aviv Stock Exchange. This financial tool comprised, until recently, of the Top 20 companies in the Maala ranking, which were also listed on the TA-100 Index. As of July 2010, the composition of the index was changed and 19 new stocks were added. Thus, it currently includes 39 top-ranked companies. The weight of each share in the index is determined according to the ratio between its market value and the total market value of all the shares on the index, ranging currently between 2.18% and 3.44%. The composition of the index is revised once a year, on the first trading day in June. Only eight of the stocks, currently in the index, were listed on it continuously since the index's inception. The index is revised and published every 30 seconds (in parallel with the ongoing trading).

### **Recent Research on SRI**

Despite the increased implementation of SRI around the world, there is still a disagreement regarding its profitability relative to other investments. Studies examining this question have yielded mixed results. Waddock and Graves (2000) found that companies implementing SRI criteria achieved an identical yield compared with conventional companies. Schröder (2004) examined several funds in the US and Europe with SRI strategies and found that the performance of these funds was similar to the performance of parallel funds. Derwall, Guenster, Bawer, and Koedijk (2005) showed that companies taking environmentalism seriously achieved a higher yield of sales than other companies that did not. Kempf and Osthoff (2007) found that shares with high ratings in the following aspects of CSR—community, employer relations, diversity, environment, and human rights achieved better yields of shares than investment portfolios with low ratings in these areas. Statman (2000) examined the performance of various socially-responsible indicators in the period of 1990-2004 and found that these indicators achieved better yields of shares than the standard and poor (S&P) index in the era of prosperity in the 1990s and lower yields than the S&P index did in the same period. In a study conducted by Statman and Glushkov (2009) in the period of 1992-2007, it was found that there was a surplus yield of shares from the DSI for social responsibility over conventional shares. In an Israeli study conducted soon after the launch of Maala Index, Lauterbach and Kriesler (2006) showed that in the short term, shares on the Maala Index achieved surplus yields relative to the TA-100 Index.

In summary, studies that have examined the performance of firms adopting a CSR policy in various sectors in different countries present inconsistent results. While some studies indicate surplus yields among corporations that have adopted a CSR policy compared with corporations that have not adopted such a policy, others indicate similar yields. Given the inconclusive results documented in the literature, the authors seek to remove some of the ambiguities on this issue in this study. This study attempts to present a clear and current picture of the performance of corporations, not only following the CSR adoption, but also following their inclusions in the CSR stock market indices. Furthermore, the authors explore whether this impact depends on the market or the environment in which the firm operates. For that matter, the authors use firms operating in the US market and firms operating in the Israeli market.

## Methods

In the first phase of this study, the authors examine the relationship between the adoption of a CSR policy by Israeli firms and the performance of their shares. The authors use all of the 39 traded firms included in the Maala Index and a sample of 39 matched Israeli firms (a control group) that do not adopt a CSR policy. Specifically, for each CSR firm, the authors identified a comparable firm based on industrial affiliation<sup>8</sup>, size (measured in terms of the market value), and performance (measured in terms of return on assets [ROAs]). The results remain qualitatively similar, when the authors identify comparable firms based on other measures, such as total assets, monthly average return, cumulative return, trade volume, net profit, and return on equity (ROE). The data were collected from Bizportal, Yahoo, and A-Online Capital.

In addition to a univariate comparison between CSR and non-CSR firms, the authors also performed a multivariate analysis that controlled various parameters based on the prior research. Specifically, the authors employed a discriminant analysis, which distinguished between nominal categories of the variable being examined (a firm belonging to one of the two categories: CSR firms and non-CSR firms) based on a group of seven discriminant interval variables: market value, book value, net income, trade volume, *ROA*, *ROE*, and monthly stock return.

Furthermore, the authors ran a logistic regression model:

$$\log\left(\frac{pi}{1-pi}\right) = \beta_0 + \beta_1 \times MV + \beta_2 \times ROA + \beta_3 \times ROE + \beta_4 \times Vol + \beta_5 \times AR + \varepsilon \quad (1)$$

Where:

*Pi* equals to the proportion of cases. The dependent dichotomous variable was defined as “1”, if the firm adopted a CSR policy and “0” if otherwise. The explanatory variables included market capitalization (*MV*), *ROA*, *ROE*, trading volume (*Vol*), and monthly average returns (*AR*).  $\varepsilon$  is the error term.

In the second stage of the analysis, the authors investigate whether and how investors in the stock market are influenced by an entry of a share to the Maala Index. The authors use an event study methodology to examine investors' responses to the adoption of a CSR policy. The authors estimate the abnormal returns using the market model  $\varepsilon_{it} = R_{it} - \alpha_i - \beta_i R_{mt}$ , where  $R_{it}$  is the rate of return on day  $t$  for firm  $i$ ,  $R_{mt}$  is the rate of return on day  $t$  of the market index, and  $\varepsilon_{it}$  is the abnormal return for firm  $i$  on day  $t$ .  $\alpha$  and  $\beta$  are estimated using transaction data for the 200 trading days up to 20 days prior to the announcement day of the inclusion of the share in the Maala Index. In order to examine the effect on share prices around the time of the announcement and around the time of the actual inclusion of the shares in the Maala Index, the authors calculated the average abnormal return and the average cumulative abnormal return (CAR) for the period starting 20 days preceding the date of announcement and ending 20 days following the day of inclusion in the Maala Index. Finally, from a long-term perspective, the authors calculated monthly average abnormal returns in the five years that preceded the entry to the Maala Index and the monthly average abnormal returns in the five years following the date when the shares were included in the Maala Index.

In the third stage of the analysis, the authors compare the performance of the Maala Index (beginning shortly after its launch in February 2005 and through July 2010) with that of the TA-100, by comparing performance indicators, such as cumulative yield, monthly average yield, standard deviation of monthly yield,

<sup>8</sup> According to the standard industrial classification (SIC) 3-digit.

Beta, and the Sharpe index.

Finally, the same analyses were repeated using the US firms on the DJSI of the New York Stock Exchange (NYSE). The authors sampled 39 out of 250 firms traded on the DJSI for at least eight consecutive years from 2002 to 2009 and subjected to the existence of trade data in those years. The firms are selected from different industries<sup>9</sup>, similar to the Israeli sample. The control group consisting of 39 shares of firms traded on the leading indices on the NYSE is paired by industry and sub-industry, market value, and total balance sheet. The data for the US sample were collected from the databases of Bizportal and Yahoo.

### Findings

Table 1 presents descriptive statistics for the sample firms by CSR-firms versus non-CSR firms. The CSR firms of this paper are consistently and insignificantly different from the non-CSR firms, in terms of size (market value) and profitability (*ROA* and *ROE*). The insignificant differences are obtained both for a comparison of the means (presented in Table 1) as well as a comparison of the medians (not illustrated in Table 1).

Table 1

#### Descriptive Statistics

	Number of firm	Mean	Std. deviation
<i>MV</i> (%)			
CSR firms	39	41220	39910
Non-CSR firms	39	30280	28080
		Sig. (0.264)	
<i>ROA</i> (%)			
CSR firms	39	5.96	4.52
Non-CSR firms	39	7.15	5.57
		Sig. (0.737)	
<i>ROE</i> (%)			
CSR firms	39	18.47	12.69
Non-CSR firms	39	19.55	15.58
		Sig. (0.708)	

Notes. (1) Variable definitions: *MV* is the market value of equity; *ROA* is the return on assets computed as earnings before interest, taxes, depreciation, and amortization (EBITDA) divided by total assets; and *ROE* is the return on equity computed as earnings before extraordinary items scaled by the book value of equity; and (2) All financial statement data are from the firm's annual fiscal period and are measured in US dollar (million).

The multivariate discriminant analysis, using the Wilks' lambda method, created a discriminant function that was not statistically significant ( $p$ -value = 0.584), which indicated that none of the interval variables discriminated significantly between a firm adopting a CSR policy and the one that did not. This fact is expressed in a relatively high Wilks' lambda coefficient (0.925) and low discriminating power (0.52).

Table 2 presents the results of the regression Model (1). The results show that none of the variables examined significantly predicts whether a firm has adopted a CSR policy or not. Moreover, the logistic regression model for predicting whether a firm belongs to the group of CSR firms is not statistically significant ( $\chi^2 = 5.63$ ,  $p > 0.1$ ,  $R^2 = 0.093$ ). The results of both the univariate and the multivariate analyses indicate that the two groups of firms, CSR and non-CSR, are indeed comparable.

<sup>9</sup> Industries include consumer products, raw materials, services, industrial space, high technology, energy, and finance.



Table 2

*Logistic Regression for Prediction of Adoption of a CSR Policy*

Significance	EXP(B)	Standard error of regression coefficient	Non-standardized regression coefficient (B)	Variable
0.698	1	0.012	0.005	<i>MV</i>
0.443	0.947	0.071	-0.054	<i>ROA</i>
0.882	1.003	0.022	0.003	<i>ROE</i>
0.407	1	0	0	<i>Vol</i>
0.215	0.696	0.292	-0.362	<i>AR</i>
0.585	1.363	0.567	0.31	<i>Fixed</i>

*Notes.* (1) Table 2 presents a logistic regression model, where the dependent dichotomous variable is defined as “1”, if the firm has adopted a CSR policy and “0” if otherwise; (2) The explanatory variables include *MV*, *ROA*, *ROE*, *Vol*, and *AR*; and (3) *Fixed* is the constant value of the regression model.

**The Impact of CSR Adoption on the Stock Performance**

The authors now move to explore whether and to what extent does the CSR adoption by a firm have an impact on the stock performance. Table 3 presents the cumulative as well as the monthly average returns on the shares of CSR firms compared with non-CSR firms.

Table 3

*Comparison of Monthly and Cumulative Returns*

	Number of firm	Average (%)	Std. deviation
Monthly returns			
CSR firms	39	0.83	0.76
Non-CSR firms	39	1.26	1.24
		Sig. (0.071)	
Cumulative returns			
CSR firms	39	50.67	66.21
Non-CSR firms	39	86.01	117.56
		Sig. (0.170)	

The findings in Table 3 indicate that, on average, CSR firms have a lower monthly return than non-CSR firms (0.83% compared with 1.26%). The difference is significant at the level of 10%. However, there was no significant and statistical difference between the cumulative returns of the two groups of firms.

**The Impact of Entry of a Share to the Maala Index on Its Performance in Both the Short and Long Term**

Table 4 displays the short-term CARs surrounding the announcement date of the inclusion of a share in the Maala Index (see Panel A in Table 4) as well as surrounding the date of the actual inclusion. The authors find that CAR is consistently positive yet insignificantly different from zero, indicating that, on the average, investors do not respond to such an event. This finding is consistent with the findings presented earlier. They may be regarded as another piece of evidence to support the hypothesis that investors do not expect that an adoption of CSR policy will damage the performance or profitability of the firm. A time window is exceptionally found to significantly and positively yield CARs (at the significance level of 10%): 20 days prior to announcement of the inclusion of the share in the Maala Index up until 10 days following the actual inclusion in the index (see Panel B in Table 4).

Table 4

*CARs Surrounding the Date of Announcement and the Date of Actual Inclusion of the Shares in the Maala Index*

Panel A: CARs surrounding the date of announcement					
	$T_1, T_2$				
Days	-20, 1	-20, 5	-20, 10	-20, 20	-1, 1
Mean	0.08	1.05	0.74	0.07	0.02
<i>p</i> -value	(0.949)	(0.468)	(0.633)	(0.977)	(0.779)
Panel B: CARs surrounding the date of inclusion					
	$T_1, T_2$				
Days	-20, 1	-20, 5	-20, 10	-20, 20	-1, 1
Mean	0.87	1.83	2.68	1.95	0.22
<i>p</i> -value	(0.576)	(0.166)	(0.097)	(0.949)	(0.977)

*Notes.* (1) CAR is calculated according to the market model estimated using share prices over a period of 180-200 days up to 20 trading days preceding the date of announcement of the inclusion of the share in the Maala Index; (2)  $T_1$  and  $T_2$  represent the event window; (3) In Panel A,  $T_1$  is the number of days prior to the announcement of the inclusion of the share in the Maala Index and  $T_2$  is the number of days following the announcement; (4) In Panel B,  $T_1$  is the number of days prior to the announcement of the inclusion of the share in the Maala Index and  $T_2$  is the number of days following the actual inclusion in the index; and (5) Values in brackets represent the *p*-value for a *t*-test that examines the hypothesis that the mean is insignificantly different from zero.

From a long-term perspective, the results are the same. The authors find that while the monthly CARs over the 5-year period prior to the entry into the index are higher than after the entry to the index (0.74% compared with 0.53% on average), the difference is not significant. The inferences do not change when using 4, 3, 2, or 1 year surrounding the inclusion in Maala Index. This finding implies that investors have considered the inclusion of CSR firms in their long-term portfolios, which are not expected to suffer a reduction in the performance of their portfolios as a result of such a decision.

The inferences do not change after controlling the degree of share liquidity.

#### **An Examination of the Performance of the Maala Index as Compared With the TA-100 Index**

Table 5 shows that cumulatively, the TA-100 Index, from March 2005 to July 2010, yielded 51.71% compared with a cumulative yield of 33.8% of the Maala Index. The average monthly return on the TA-100 Index is 0.73% as compared with 0.36% for the Maala Index. Notwithstanding, the differences between the cumulative as well as the average returns are statistically insignificant. Measurement of the beta coefficient of the Maala Index compared with the TA-100 Index is 0.86, which indicates the smaller movement and lower systematic risk of the former with respect to the TA-100 Index. The Sharpe index of the Maala Index is positive, indicating a surplus yield relative to a risk-free asset (such as short-term loans and bonds, with an average yield during the examined period of approximately 3% annually). Although the TA-100 Index has a higher Sharpe measure, the difference is not particularly large and does not indicate the unworthiness of investment in the Maala Index relative to TA-100 Index.

As noted, similar analyses were repeated using a matched-pairs sample of 39 US firms on the DJSI and a corresponding sample paired by industry and size. The results of the analyses of the US firms were similar to those obtained from the analyses of Israeli firms. No significant differences were found between the performance of the DJSI sample and the control group in both the univariate and multivariate analyses. Hence, results presented in this study do not derive from nor are dependent on the market in which the firms operate.

Table 5

Comparison of the Performance of the Maala Index Versus TA-100 Index for the Period From March 2005 to July 2010

TA-100 Index	Maala Index	Item
51.71	33.8	Cumulative yield*
0.73	0.36	Average monthly yield*
5.6	5.32	Standard deviation monthly yield
1	0.86	Beta** <sup>10</sup>
0.086	0.022	Sharpe index <sup>11</sup>

Notes. \* indicates that the *t*-test for paired samples for a comparison of the average yields shows that there is no significant difference between the indices ( $p > 0.1$ ); and (2) \*\* indicates that Beta is different than one and at a significant level of 10% (*t*-test).

In this stage of the analysis, the authors compare the performance of the Maala Index (beginning shortly after its launch in February 2005 till July 2010) with that of the TA-100. Figure 1 shows that the two indices move very closely. Additionally, the correlation coefficient is 0.91, which validates the graphic impression.

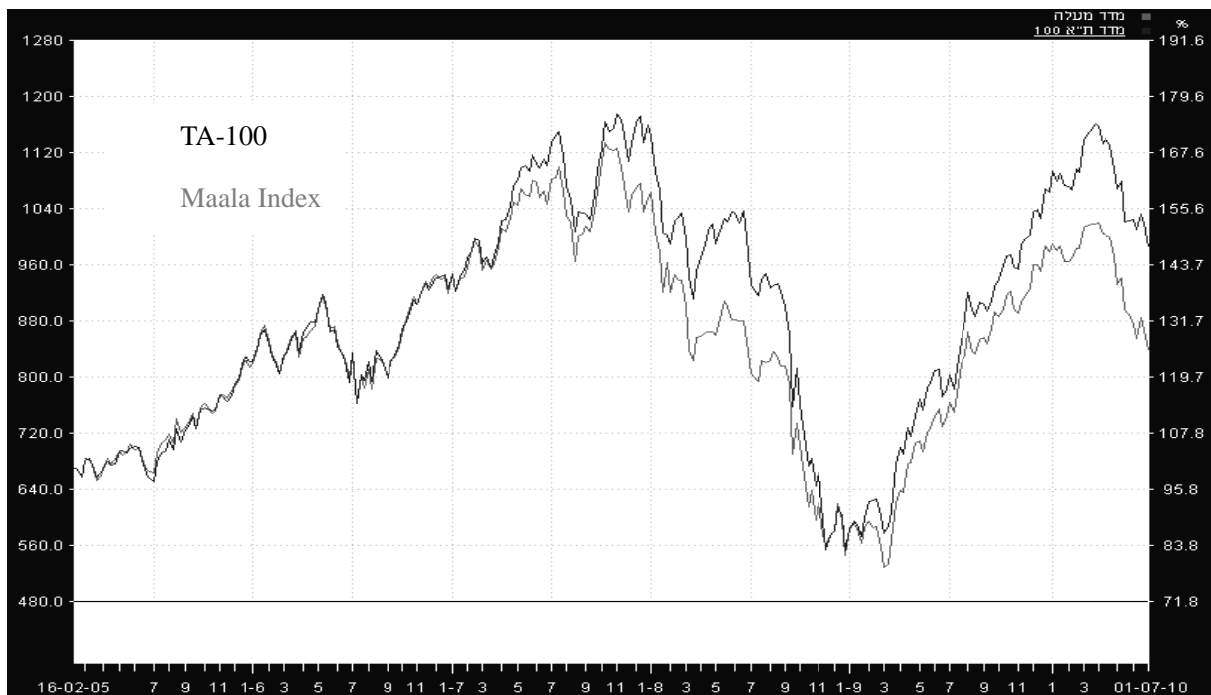


Figure 1. The patterns of Maala Index versus the TA-100 Index from February 2005 to July 2010.

### Summary and Conclusions

The concept of social responsibility in business is a developing issue that spurs different opinions both ideologically and pragmatically. Little agreement exists regarding the effectiveness of the implementation of CSR for the corporation's financial performance. Research conducted to date has not produced unequivocal findings regarding the corporate performance following the integration of CSR.

<sup>10</sup> Beta indicates the risk level of the index relative to the market index (TA-100). A beta greater than one indicates a higher risk on the investment horizon calculated with respect to an investment in the market index.

<sup>11</sup> The Sharpe index provides criteria for the average return on investment relative to the risk of the said financial asset.

In this study, the authors attempted to provide a current test of the performance of corporations implementing a CSR policy. For that matter, the authors utilized information extracted from two different markets: the US and the Israeli markets. The results obtained from the two markets are qualitatively similar. The main findings of this paper indicate that there is no significant difference between the performances of stocks of firms adopting CSR in comparison to firms that do not. Notably, the findings remove the basis from an argument that the implementation of social-environmental responsibility in business comes at a high cost that reduces the value of the firm. Specifically, the findings indicate that the performance of shares of CSR firms is not significantly different from the performance of non-CSR firms, in the short term as well as in the long term. While the adoption of a CSR policy may require some of the firm's resources to be invested in causes that are not directly related to the (maximization of) welfare of the firm's owners but rather with the welfare of the society as a whole (e.g., contribution of funds or donations to the community, investments in the reduction of the environment's pollution, and investments in employees' welfares), the market does not seem to respond to such actions, as value reduces. Rather, investors seem to appreciate the firms adopting social responsibility as reflected in the performance of CSR firms' shares, which are at least as good as those of firms that ignoring the adoption of CSR.

This research is of direct relevance to managers, investors, and the society as a whole. For managers of firms that have avoided adopting a CSR policy to avoid unnecessary expenditures, this study provides the additional evidence that the maximization of profit and the wealth of the firm's owners are not impaired as a result of adopting a CSR policy. For investors, the results of this study indicate that the inclusion of shares of CSR firms in their portfolio has no (negative) impact on the performance of the portfolio in the short term or in the long term. The society would naturally benefit from the evidence supporting CSR adoption by corporations.

This study provides an additional support for the CSR School in that its findings indicate that investments in firms that integrate social-environmental responsibility are just "as good as" investments in firms that do not integrate this line and even better as in addition to the financial return. The authors are changing the face of the global environment and are creating a system for support and enforcement that ensures the existence of a better environment for the children in the present and future.

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