CORPORATE SOCIAL RESPONSIBILITY AND FINANCIAL PERFORMANCE: EVIDENCE FROM THE FINANCIAL SECTOR

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Abstract

Does corporate social responsibility (CSR) entail economic and financial loss or does it guarantee competitive advantage? To answer this question, many studies have aimed to establish, largely in samples from multiple industries, the relationship between corporate social performance (CSP) and corporate financial performance (CFP). These studies have produced conflicting results and any attempt to give a generalised and coherent conclusion has proved inadequate. This paper investigates the possible connection between CSP (measured by ethical rating) and CFP (measured by price-to-book-value) in a sample of international financial intermediaries. Although most previous contributions seem to confirm the hypothesis of the existence of a positive relationship between the two variables, the paper finds no clear evidence of a significant relationship between CSP and CFP in the financial sector.

Keywords: corporate social responsibility, corporate social performance, corporate financial performance, financial companies, ethical rating

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Introduction

Does corporate social responsibility (CSR) affect the profitability of companies? Is it possible to identify a relationship between corporate social performance (CSP) and corporate financial performance (CFP)? Can CSP be translated into competitive advantage or, on the contrary, does it drive up costs to the detriment of financial monetary gain? Academic studies have long, attempted to answer these questions, both at theoretical level (Friedman, 1970; Waddock and Graves, 1997; Preston and O' Bannon, 1997) and by empirical analyses (Margolis and Walsh, 2003; Orlitzky et al., 2003; Brammer and Millington, 2008; Choi and Wang, 2009).

From the theoretical point of view, different hypotheses have been formulated on the possible link between CSP and CFP. Some authors (Waddock and Graves, 1997; Husted and Allen, 2001; Husted, 2005; Ribstein, 2005) describe a linear positive relationship between the two variables, reflecting the assumption that corporate social responsibility guarantees financial benefits. But other authors (Friedman, 1970; Preston and O' Bannon, 1997) argue in favor of a linear negative association between CSP and CFP, considering that corporate social responsibility produces costs decidedly superior to profits. In contrast, some studies (McGuire et al., 1988) theorize a non-linear connection between CSP and CFP, while other contributions (McWilliams and Siegel, 2001) describe these variables as uncorrelated, reflecting the assumption that corporate social responsibility has no impact on the profitability of companies.

From the empirical point of view, many studies have been carried out in order to quantitatively establish the possible relationships between CSP and CFP (Margolis and Walsh, 2003; Orlitzky et al., 2003). Although most contributions seem to confirm the hypothesis of the existence of a positive relationship between CSP and CFP (Griffin and Mahon, 1997; Johnson and Greening, 1999; Graves and Waddock, 2000; Ruf et al., 2001; Choi and Wang, 2009), these results are not homogeneous and cannot be generalized to all markets and sectors. So in spite of the great amount of research, there still remains uncertainty regarding both the direction of causality and the sign of the relationship.

The lack of consensus on the link between CSP and CFP arises for several reasons, that make existing research findings not comparable.

First, many studies use different CSP proxies (Griffin and Mahon, 1997; Carroll, 2000), such as content analyses, surveys, reputational indexes, one-dimensional indicators and ethical ratings.

Second, the studies employ a broad range of economic and financial performance measures (Griffin and Mahon, 1997; Margolis and Walsh, 2003), and mix accounting and market indexes, which are sometimes risk-adjusted. Although most contributions employ CFP as a dependent variable, some of them employ it as an independent variable, together with other control variables (Margolis and Walsh, 2003).

Third, existing studies use different methodologies (correlations, regressions, ANOVA and event studies) and consider different time horizons.

Fourth, the main studies are almost exclusively focused on the USA and UK markets and are mainly carried out on samples from multiple industries (Griffin and Mahon, 1997; Simpson and Kohers, 2002). The problem with this approach is that CSP shows marked characteristics depending on the sectors the firms belong to, which are characterised by stakeholders with very different needs and degrees of activity (Rowley and Berman, 2000).

In order to overcome the limitations of previous studies, the first objective of the paper is to understand whether the choice of the CSP measures substantially influences the results. The second purpose of this study is to extend previous research on the relationship between CSP and CFP by focusing on a single industry: the financial industry. The decision to concentrate on the financial sector is dictated by the awareness that financial activity has a "social value". This is why financial companies were among the first to implement socially responsible programmes and initiatives. The quantitative analysis is carried out on a sample of international financial intermediaries. Financial performance is measured by price-to-book-value, a useful indicator for evaluating the CSR contribution to market performance. Social performance is measured using ethical ratings. The article proceeds as follows.

The next section reviews existing literature on the relationship between CSP and CFP. The second section examines the methodological aspects. This involves the description of the sample, the variables and the model used in the empirical analysis. The results of the analysis are described in the third section, which is followed by the conclusions.

Literature Review and Hypothesis Development

The nature of the relationship between CSP and CFP has long been debated. Theoretical and empirical studies have often resulted in contradictory conclusions, emphasising the complexity of the investigation process (Carroll, 2000; Rowley and Berman, 2000). In order to analyse previous literature on the topic, this section discusses first the possible theoretical relationship between CSP and CFP. Next, different social performance proxies are described. Results of empirical analyses, classified according to the kind of social performance measures adopted, are presented with the aim of understanding whether the choice of the CSP proxy substantially influences the results of previous studies.

The Possible Relationship Between Corporate Social Performance and Corporate Financial Performance

Academic literature has long tried to investigate the possible association between corporate social performance and corporate financial performance both at a theoretical level and through quantitative studies. Four theoretical hypotheses have been proposed.

The first hypothesis theorizes a linear negative relationship between CSP and CFP. Contributions in this area (Friedman, 1970; Jensen, 2002) argue that companies that opt for social responsibility produce costs decidedly higher than profits and this causes a deterioration in financial-economic results. These costs can be attributed to the restraints associated with geographic and business areas, the employment of additional human resources and the increased expense of activities or processes that satisfy the requirements of stakeholders.

The second hypothesis assumes a linear positive relationship between CSP and CFP, although no causal relationship is established. Some authors (Waddock and Graves, 1997) argue that good financial performance leads to good social performance, because more profitable companies, as a result of allocated profits, have more resources for programmes concerning corporate social responsibility. Others (Husted and Allen, 2001; Ribstein, 2005) conceptualize that becoming socially responsible could determine higher financial returns for a company than for its competitors. In this view, the positive effects of CSP on CFP can be attributed to a reassessment of the strategy, the improvement of processes, and the loyalty of employees, customers and local communities (Fombrun, 1996; Greening and Turban, 2000). All these factors can cause a slight decrease in the unsystematic risk of listed firms (Orlizky and Benjamin, 2001). On this point CSR can play a role in the strategic management of corporate risk (Godfrey, 2005). A further competitive advantage linked to the perception of a company's ethical behaviour is reputation. On this point some authors (Fombrun et al., 2000; Peloza, 2006) observe how the effects of social performance on financial performance are manifold: corporate social responsibility not only provides incentives for incremental investments, but, above all, cushions negative effects on company reputation. From this point of view, social responsibility takes on the connotations of an insurance (Klein and Davar, 2003),

in that it can help safeguard the reputation of the company by reducing its unpredictability in the event of harmful effects, and thus protect profits and financial results.

The third hypothesis theorizes a mixed non-linear relationship between CSP and CFP (Brammer and Millington, 2008). According to this view, the connection between the two variables is not constant in time and the relationship can assume the shape of a "U" or of an " inverted U". A "U" relationship can be explained by the hypothesis that the implementation of a CSR programme could initially cause an increase in costs higher than profits (and therefore a decrease in financial-economic performance), a tendency that would then be reversed in the medium-long term. An "inverted U" relationship reflects the assumption that there exists an optimum level of corporate social responsibility, beyond which long-term social responsibility would no longer be economically advantageous.

The fourth hypothesis assumes a neutral relationship between CSP and CFP. In this view, corporate social performance is too complex to be measured, which means that any link with financial and economic performance is masked.

The Measurement of Corporate Social Performance: A Standard for The Classification of The Results of Empirical Analyses

Various indicators including social and financial performance proxies of companies have been used to quantitatively establish the relationships described in the previous section. But while theory unanimously recognizes accounting and market measures as a good proxy of CFP, this is not the case for CSP. Corporate social performance is a multidimensional construct, and in various studies has been quantified by five different methods: content analysis, surveys carried out using questionnaires, reputational indexes, one-dimensional indicators and ethical ratings.

Many studies (Roman et al., 1999; Margolis and Walsh, 2001; Orlitzky et al., 2003) have systematically reviewed quantitative investigations aimed at identifying the link between CSP and CFP with the purpose of evaluating the results as a whole. These studies have largely used a temporal criterion. Below, on the other hand, we classify existing quantitative studies according to the kind of social performance measures adopted, with the objective of understanding whether the choice of the CSP measure substantially influences results.

The first methodology, content analysis, consists of evaluating the area dedicated to social responsibility in a company's public documents. This method presupposes the acceptance of the strong hypothesis that social disclosure is a good proxy of corporate social performance. Of the nineteen content analysis studies I reviewed, one (Bowman and Haire, 1975) shows the existence of a mixed relationship between CSP and CFP, two (Ingram and Frazier, 1983; Meznar et al., 1994) a negative relationship, ten (Belkaoui, 1976; Fry and Hock, 1976; Bowman, 1978; Ingram, 1978; Preston, 1978; Anderson and Frankle, 1980; Freedman and Stagliano, 1991; Blacconiere and Patten, 1994; Blacconiere and Northeut, 1997; Verschoor, 1998) a positive relationship and six (Abbott and Monsen, 1979; Freedman and Jaggi, 1982; Freedman and Jaggi, 1986; Cowen et al., 1987; Patten, 1990; Patten, 1991) find no relationship between the two variables. To these analyses we can add Holman, New and Singer (1990), who establish the absence of a statistically significant link between social performance and global and systematic corporate risk.

Other analyses proxy CSP by surveys carried out using questionnaires. These are completed by top company managers and analysed by researchers in order to appraise the level of social performance achieved by the firms. A possible weakness of this method is that by its nature the evaluation is internal and reflects the orientation and perception of managers themselves. Of the five studies I reviewed of this type, two (Parket and Eilbert, 1975; Christmann, 2000) confirm the hypothesis of a positive relationship between CSP e CFP, while three (Kedia and Kuntz, 1981; Aupperle et al., 1985; O'Neill et al., 1989) find no link between the two variables.

Other researchers take reputation as a proxy of corporate social performance, by calculating a score on the basis of a subjective definition of social performance. Although Moskowitz (1972) and the journal Business and Society Review were the first to develop such indicators, the most widely used reputational measurement is the Corporate Reputational Index calculated by Fortune magazine.

The approximation of CSP with reputational indicators implies the acceptance of two strong hypotheses: (i) the "reputation" perceived by third parties is a good proxy of responsible behaviour actually practised by companies and (ii) the reputational measures are not influenced by the good financial-economic performance of companies *(endnote 1)*. Among the quantitative analyses I reviewed using the Moskowitz and the Business and Society Review indexes, three (Moskowitz, 1972; Heinze, 1976; Cochran and Wood, 1984) find evidence of a positive relationship between CSP and CFP, one (Alexander and Buchholz, 1978) finds null, one mixed (Sturdivant and Ginger, 1977) and one negative (Vance, 1975). Of the fifteen empirical analyses that use the Fortune Reputational Index as a proxy of social performance, thirteen (Conine and Madden, 1986; Spencer and Taylor, 1987; Wokutch and Spencer, 1987; Clarkson, 1988; McGuire et al., 1988; Cottrill, 1990; Preston and Sapienza, 1990;

Herremans et al., 1993; Simerly, 1995; Preston and O'Bannon, 1997; Ticky et al., 1997; Brown, 1998; Stanwick and Stanwick, 1998) demonstrate a positive relationship between CSP and CFP, one (McGuire et al., 1990) a mixed relationship and one (Fombrun and Shanley, 1990) the absence of any relationship.

Although today the multi-dimensional character of social performance is no longer called into question, some quantitative investigations proxy CSP using a one-dimensional indicator. These are indicators that express a judgement on a single aspect of various socially responsible practices. The CSP proxies most widely used in the literature are the following: dialogue with local community and philanthropy, orientation towards the client, the degree of involvement in illegal practices and respect for the environment. In this area, twenty-eight studies I reviewed (Bragdon and Marlin, 1972; Spicer, 1978; Levy and Shatto, 1980; Maddox and Siegfried, 1980; Crafton et al., 1981; Fry et al., 1982; Reilly and Hoffer, 1983; Shane and Spicer, 1983; Stevens, 1984; Jarrell and Peltzman, 1985; Newgren et al., 1985; Marcus and Goodman, 1986; Pruitt and Peterson, 1986; Wokutch and Spencer, 1987; Hoffer et al., 1988; Bromiley and Marcus, 1989; Morris et al., 1990; Davidson and Worrell, 1992; Porter and Van Der Linde, 1995; Klassen and McLaughlin, 1996; Nehrt, 1996; Galaskiewicz, 1997; Russo and Fouts, 1997; Judge and Douglas, 1998; Dowell et al., 1999; Klassen and Whybark, 1999; Gompers et al., 2003; Brown and Caylor, 2006) confirm the hypothesis of a positive relationship between CSP and CFP. Only one study (Ogden and Watson, 1999) reveals a negative link between the two variables, but this is absent in five further studies (Seifert et al., 2004; Fogler and Nutt, 1975; Chen and Metcalf, 1980; Ogden and Watson, 1999; Core et al., 2006). Brammer and Millington (2008), on the other hand, demonstrate the existence of a mixed relationship between CSP and CFP.

Finally, the most recent quantitative studies on the subject approximate social performance by using multidimensional indicators (ethical ratings). These are multi-dimensional indexes elaborated by disinterested research agencies. Each agency has devised its own model of CSP quantification which selects indicators concerning stakeholder categories with which companies interface. A score is attributed to each indicator, and scores are then aggregated into single ethical rating according to an arithmetic or weighted average. Of the fourteen studies I reviewed that use ethical ratings, ten (Griffin and Mahon, 1997; Waddock and Graves, 1997; Berman et al., 1999; Knoepfel, 2001; Ruf et al., 2001; Simpson and Kohers, 2002; Van de Velde et al., 2005; Hull and Rothenberg, 2006; Choi and Wang, 2009) support the hypothesis of a positive relationship between CSP and CFP, three (Berman et al., 1999; Waddock et al., 2000; Yang et al., 2010) show that there is no relationship between the two variables, and two show a negative relationship (Brammer et al., 2006; Makni et al., 2008).

Figure 1 summarizes the global results of ninety-three studies examined.

Figure 1. Results of empirical analyses

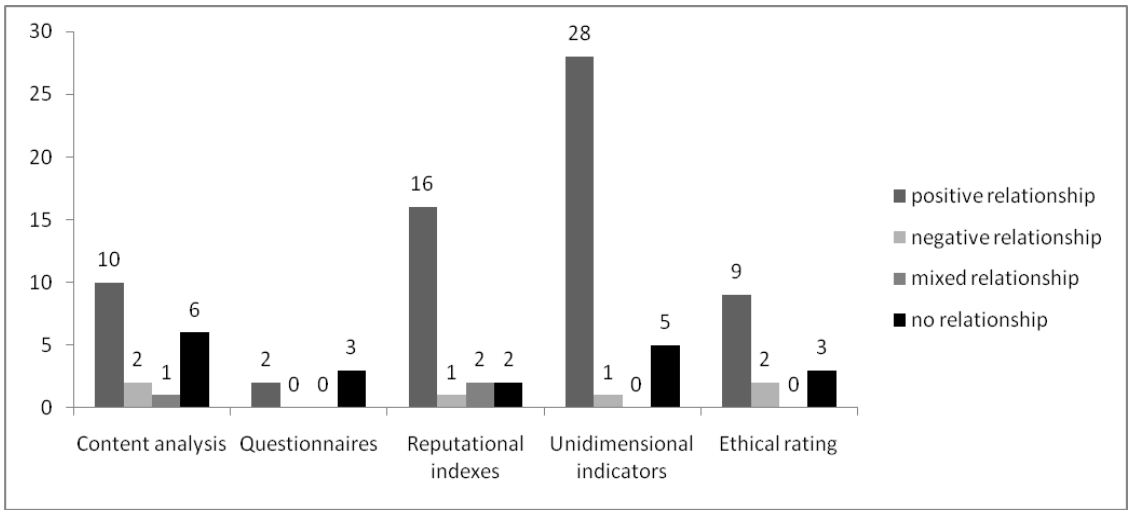

Figure 1 shows the global results of 93 previous studies examining the relationship between corporate social performance and corporate financial performance.

Although most studies seem to confirm the hypothesis of the existence of a positive relationship between CSP e CFP, results are not homogeneous and cannot be generalized to all markets and sectors. The studies in fact are inconsistent in terms of methodologies of social performance quantification, indicators of financial-economic performance as well as historical series. Even the range of samples is

disparate, as is the choice of dependent and independent variables, control variables and empirical methodologies used (correlations, regressions, ANOVA and event studies). Most studies are also almost exclusively focused on the USA and UK markets and investigate the possible link between social performance and financial-economic performance on samples from multiple industries. But CSP often shows marked distinguishing characteristics depending on the sectors firms belong to, which tend to be characterised by different stakeholders with very different needs.

The purpose of this study is to extend previous research on the relationship between CSP and CFP by focussing on the financial industry. The decision to concentrate on this sector is dictated by the awareness that financial intermediaries are now more than ever before seeking to protect their reputation. It is not by chance that financial companies have been among the first in the world to implement socially responsible programmes and initiatives. And although a premise of this paper is that the relationship between the two variables is not straightforward, I assume that the overall relationship in the financial sector is a positive one.

Hypothesis: Corporate social performance positively affects corporate financial performance in the financial sector

Method

Data and measures

The sample consists of 47 listed international financial intermediaries ethically rated for the years 2004 and 2005: 14 financial companies rated for the year 2004 and 33 financial companies rated for the year 2005. The total sample is made up of 40 banks, 4 insurance companies and 3 financial service companies. 81% of financial companies are based in Europe, 11% in America, 6% in Australia and 2% in Asia.

The cross sectional ordinary least squares (OLS) method is used to estimate the linkage between CFP and CSP. In the model CFP is the dependent and CSP the independent variable.

Previous studies on the relationship between CSP and CFP employ a broad variety of corporate financial performance measures (Margolis and Walsh, 2003), using both accounting indicators and market ratios. The choice between accounting-based measures and market ratios is far from simple. Some authors (Aupperle et al.,1985) opt for accounting indicators, arguing that market rations presuppose the strong hypothesis of the existence of efficient markets in an informative and evaluative sense. On the other hand, others (Benston,1982) emphasize the lack of objectivity of accounting-based measures, too often distorted by managers, and maintain that market performance is the financial dimension most relevant to investors. In this study a market-based performance measure is employed: the price-to-book-value. The ratio, comparing the book value of a firm to its market price, has been shown in the literature to correlate strongly with Tobin's q, the theoretical standard for measuring intangible assets (Villalonga, 2004). For this reason price-to-book-value is useful for evaluating the contribution made by CSR (considered as an intangible asset) to market performance. Data on price-to-book-value are derived from the Damodaran database.

CSP is approximated using ethical rating. As it is calculated using all data on different aspects of corporate social responsibility, it seems the most suitable index to evaluate the multidimensional character of CSP (Waddock and Graves, 1997; Hull and Rothenberg, 2008). Ethical ratings used in this study have been developed by three ethical screening agencies: Ethibel (18 companies rated), Axia (15 companies rated) and AEI Standard Ethics (14 companies rated).

Ethibel's own evaluation model consists of an extensive checklist of sustainable criteria which together form the ethical rating. The criteria cover four areas: internal social policy, environmental policy, external social policy and ethical economic policy. Each area is given equal importance and assigned a score from 1 to 5. Ethibel does not elaborate any overall ethical judgement. For this reason, in order to verify the relationship between CSP and CFP, the four area scores have been added so as to construct an aggregate measure of CSP from 1 to 20.

Axia, on the other hand, expresses an ethical rating aggregated in hundredths. It identifies an area of low promotion of positive criteria between 0 and 30 points, one of average promotion between 31 and 50 points, one of medium-high promotion between 51 and 80 points and an area of excellence over 81 points.

AEI Standard Ethics carries out an ethical evaluation at eight increasing levels: E-, E, E+, EE-, EE, EE+, EEE-, EEE.

In this study, other variables that may affect the market-to-book value are included as controls.

First *firm size*, operationalized as the natural logarithm of the market capitalization of each company, is included because large size often brings about economies of scale affecting financial performance (Mc Williams and Siegel, 2000; Choi and Wang, 2009). Second *firm risk*, measured as the standard deviation of annual returns, is also taken into account, since risk has been found to be associated with CFP (Waddock and Graves, 1997; Choi and Wang, 2009). Furthermore, since firms with lower debts (Waddock and Graves, 1997) and higher profitability (Nelling and Webb, 2006) are expected

to have higher price-to-book-value, *firm leverage* (measured by the ratio of market debt to capital) and *profitability* (measured by return on equity) are also included. Firm *dividend payouts*, proxied by the payout ratio, are also introduced into the model.

Model specification

The examination of the relationship between CSP and CFP employs a cross-sectional regression analysis. The following equation is estimated in this study.

$$CFP_{i,t} = \alpha_1 + \alpha_2 + \beta_1 * CSP_{i,t} + \beta_2 * SIZE_{i,t} + \beta_3 * RISK_{i,t} + \beta_4 * LEVERAGE_{i,t} + \\ + \beta_5 * PROF_{i,t} + \beta_6 * DIV_{i,t} + \varepsilon \quad (1)$$

where $CFP_{i,t}$ is the price-to-book-value for financial company *i* on the year *t*, t is the year 2004 or 2005, α_1 is a dummy variable which equals 1 for the year 2004 and 0 otherwise, α_2 is a dummy variable which equals 1 for the year 2005 and 0 otherwise, $CSP_{i,t}$ is the ethical rating for company *i* on the year *t*, $SIZE_{i,t}$ is the natural logarithm of the market capitalization form company *i* on the year *t*, $RISK_{i,t}$ is the standard deviation of annual returns for company *i* on the year *t*, $LEVERAGE_{i,t}$ is the market debt to capital ratio for company *i* on the year *t*, $PROF_{i,t}$ is the return on equity ratio for company *i* on the year *t*, $DIV_{i,t}$ is the payout ratio for company *i* on the year *t*. All statistical analyses are performed with the software Gretl.

Results

Descriptive statistics and simple correlation analysis

Table 1 presents the descriptive statistics of CFP and CSP measures and of the control variables. The means of the aggregate CSP measure (ethical rating) are 48.2 and 70.8 for 2004 and 2005 respectively, while the mean for both years is 64.1. The average price-to-book-values for 2004 and 2005 are 2.2 and 2.6 respectively.

Table 1. Descriptive statistics of the sample

	Mean	Median	Standard deviation	Minimum	Maximum	N
CFP	2.470	2.159	1.465	1.206	9.550	47
2004	2.188	1.896	0.913	1.206	4.615	14
2005	2.589	2.165	1.642	1.285	9.550	33
CSP	64.070	70.000	19.767	12.500	89.200	47
2004	48.214	50.000	23.440	12.500	87.500	14
2005	70.797	75.500	13.485	33.800	89.200	33
Size	10.085	10.328	1.629	5.770	16.066	47
2004	10.784	10.653	0.806	9.292	12.433	14
2005	9.789	9.864	1.801	5.770	16.066	33
Risk	0.182	0.173	0.063	0.046	0.373	47
2004	0.202	0.196	0.058	0.143	0.369	14
2005	0.173	0.158	0.064	0.046	0.373	33
Leverage	0.662	0.780	0.249	0.000	0.946	47
2004	0.665	0.794	0.249	0.282	0.922	14
2005	0.660	0.780	0.253	0.000	0.946	33
Prof	0.133	0.133	0.088	-0.042	0.390	47
2004	0.132	0.139	0.072	0.023	0.245	14
2005	0.133	0.123	0.096	-0.042	0.390	33
Div	0.235	0.231	0.294	-0.636	1.001	39
2004	0.330	0.357	0.271	0.000	1.001	12
2005	0.192	0.175	0.298	-0.636	0.790	27

Table 1 presents descriptive statistics of CFP and CSP measures and of the control variables.

The Pearson correlation coefficients between CFP, CSP and the control variables are given in Table 2. In general, CSP and CFP measures are positively and strongly correlated. Furthermore, CFP is strongly correlated with firm size and dividend payout, as previous literature has also shown.

Table 2. Correlation matrix of research variables

	CFP	CSP	SIZE	RISK	LEV	PROF	DIV
CFP	1	0.131***	0.488***	0.446	-0.228	0.182	-0.355**
Sig. (2-code)	(0.381)	(0.001)	(0.002)	(0.123)	(0.219)	(0.381)	(0.027)
CSP		1	0.018	-0.045	-0.091	0.193	-0.038
Sig. (2-code)		(0.902)	(0.766)	(0.544)	(0.195)	(0.902)	(0.819)
SIZE			1	0.309**	0.174	0.054	0.451***
Sig. (2-code)				(0.035)	(0.242)	(0.720)	(0.004)
RISK				1	-0.340**	-0.200	-0.138
Sig. (2-code)					(0.019)	(0.178)	(0.403)
LEVERAGE					1	-0.094	-0.043
Sig. (2-code)						(0.529)	(0.799)
PROF						1	-0.063
Sig. (2-code)							(0.702)
DIV							1
Sig. (2-code)							

*** Statistically significant at the 1% level
** Statistically significant at the 5% level
* Statistically significant at the 10% level

Table 2 shows the correlations between variables. The correlation was generated with the Gretl programm. The significance of the coefficients is expressed with one, two or three asterisks, i.e. the rejection of the null hypothesis of the coefficients with a probability level of 10%, 5% and 1%, respectively.

Results of the regression model

Table 3 presents the results of the OLS regression model. The adjusted R-squared for the regression is 0.604, which indicates the equation is reliable. Most of the control variables are significant at the 1% and 5% level. In particular, financial companies with high price-to-book-value ratio show higher size, higher profitability and lower leverage, as suggested by previous studies. Dividend payout, on the contrary, shows a negative linkage with CFP, in contrast with existing analyses. This can be explained considering that the payout ratio is a measure of how much profit is returning to shareholders in the form of dividends. Sometimes, an unusually high ratio over a longer period of time may be a danger signal, a sign that the company will soon have to cut its dividend in order to have the money it needs to reinvest in its business.

Table 3. Results of the OLS regression model

	Coefficient	*Std. Error*	*t-ratio*	*p-value*
a	-0.682	1.126	-0.605	0.549
b	-0.303	1.031	-0.294	0.770
CSP	-0.008	0.007	-1.125	0.269
SIZE	0.330	0.105	3.156	0.004***
RISK	1.231	2.422	0.508	0.615
LEVERAGE	-1.256	0.528	-2.379	0.024**
PROF	6.817	1.505	4.529	0.000***
DIV	-1.815	0.463	-3.924	0.000***

Mean dependent var	2.371	S.D. dependent var	1.085
Sum squared resid	14.427	S.E. of regression	0.682
R-squared	0.677	Adjusted R-squared	0.604
F(7, 31)	9.297	P-value(F)	3.66e-06
Log-likelihood	-35.946	Akaike criterion	87.893

*** Statistically significant at the 1% level
** Statistically significant at the 5% level

Table 3 shows the results of the cross sectional OLS regression. The regression was generated with the Gretl programm. The significance of the coefficients is expressed with one, two or three asterisks, i.e. the rejection of the null hypothesis of the coefficients with a probability level of 10%, 5% and 1%, respectively.

The null hypothesis of no relationship or a negative relationship between the two variables is accepted, as indicated by the p-value (0.269) for the CSP variable. CSP, however, shows no sign of being directly affected by CFP. This result is consistent with the ambiguous findings on the relationship between CSP and CFP previously discussed (Ullmann, 1985).

Conclusions

This paper has attempted to provide a contribution to the study of the relationship between CSP and CFP, which has long been debated in literature.

Many previous studies simply classified previous quantitative investigations aimed at identifying the linkage between CSP and CFP following a ?temporal criterion. However, with the objective of understanding whether the choice of the CSP measure substantially influences the results, this work classifies previous quantitative studies according to the kind of social performance assessments adopted in the general literature. Although most studies reviewed seem to confirm the hypothesis of a positive relationship between CSP and CFP, the methodologies and results are not homogeneous and cannot be generalized to all markets and sectors. Previous studies are inconsistent in terms of CSP and CFP proxies, historical series and range of samples, and are mainly focused on the USA and UK markets. They also investigate the link mainly on samples of multiple industries, which is a major limitation given that the CSP shows marked distinguishing characteristics between sectors.

To overcome these limitations, the present study investigated the relationship between CSP and CFP on a sample of international financial companies. The decision to focus on the financial sector was dictated by the awareness that financial intermediaries have been among the first companies in the world to implement socially responsible programmes and "social value" initiatives. CSP was measured by means of the ethical rating calculated by different agencies, which could constitute a useful precedent for future research.

From the analyses carried out no clear evidence emerged of a significant relationship between CSP and CFP in the financial sector.

Superficially this may seem a reassuring result, since it appears to negate the hypothesis of a negative correlation between social performance and financial performance. It could seem that financial companies have succeeded in ethically orientating part of their investments (and, therefore, costs) without "bearing any sacrifice" in terms of economic results. But from a different point of view, we may be faced with empirical proof that CSR investments do not in fact realize financial advantages for the financial intermediaries.

But in fact the study is far too limited to confirm either hypothesis or permit any generalization, and the results need to be interpreted taking into account two

major limitations. First, the sample size was small and second, only a two-year period was examined. Future research on the financial sector needs to broaden both the sample and the time horizon, and future studies need to investigate the relationship between CSP and CFP on a wider range of firms in the middle-long term.

References

1. Aupperle, K.E., Carroll, A.B., Hatfield, J.D. (1985), "An empirical examination of the relationship between corporate social responsibility and profitability", *Academy of Management Journal*, vol. 28, pp. 446-463.
2. Benston, G.J. (1982), "Accounting numbers and economic values2, *Antitrust Bulletin*, vol. 27, pp. 161–215.
3. Brammer, S., Millington, A. (2008), "Does it pay to be different? Analysis of the relationship between corporate social and financial performance", *Strategic Management Journal*, vol. 29, pp. 1325–1343.
4. Carroll, A. (2000), "The four faces of corporate citizenship", *Academy of Management Journal*, vol. 4, pp. 497-508.
5. Choi, J., Wang, H. (2009), "Stakeholder relations and the persistence of corporate financial performance", *Strategic Management Journal*, vol. 30, pp. 895–907.
6. Fombrun, C.J. (1996), *Reputation: realizing value from the corporate image*. Harvard Business School Press. Boston, MA.
7. Fombrun, C., Gardberg, N.A., Barnett, M.L. (2000), "Opportunity platforms and safety nets: corporate citizenship and reputational risk", *Business and Society Review*, vol. 105, pp. 85 -106.
8. Friedman, M. (1970), "The social responsibility of business is to increase its profits", *New York Times Magazine*, vol. 13.
9. Godfrey, P. (2005), "The relationship between corporate philanthropy and shareholder wealth: a risk management perspective", *The Academy of Management Review*, vol. 30, pp. 777-798.
10. Graves, S.B., Waddock, S.A. (2000), "Beyond built to last: stakeholder relations in 'built-to-last' companies", *Business and Society Review*, vol. 105, pp. 393–418.
11. Greening, D.W., Turban, D.B., (2000), "Corporate social performance as a competitive advantage in attracting a quality workforce", *Business and Society*, vol. 39, pp. 254–280.
12. Griffin, J.J., Mahon, J.F. (1997), "The corporate social performance and corporate financial performance debate", *Business and Society*, vol. 36, pp. 5-31.
13. Hull, C.E., Rothenberg, S. (2008), "Firm performance: the interactions of corporate social performance with innovation and industry differentiation", *Strategic Management Journal*, vol. 29, pp. 781–789.
14. Husted, B.W., Allen, D.B. (2001), "Toward a model of corporate social strategy formulation", Academy of Management, Washington, D.C., August 6, 2001.
15. Husted, B.W. (2005), "Risk management, real options e corporate social performance", *Journal of Business Ethics* vol. 60, pp. 175-183.
16. Jensen, M. (2002), "Value maximization, stakeholder theory and the corporate objective function", *Business Ethics Quarterly*, vol. 12, pp. 235–256.
17. Johnson, R.A., Greening, D.W. (1999), "The effects of corporate governance and institutional ownership types on corporate social performance", *Academy of Management Journal*, vol. 42, pp. 564-576.
18. Klein, J., Davar, N. (2003), "Corporate social responsibility and consumers' attributions and brand evaluations in a product-harm crisis", *International Journal of Research in Marketing*, vol. 21, pp. 203-217.
19. Margolis, J.D., Walsh, J.P. (2001), *People and profit? The search for a link between a company's social and financial performance*, Lawrence Erlbaum Associates, Mahwah.
20. Margolis, J.D., Walsh, J.P. (2003), "Misery loves companies: rethinking social initiatives by business", *Administrative Science Quarterly*, vol. 48, pp. 268-305.
21. McGuire, J.B., Sundgren, A., Schneeweis, T. (1988), "Corporate social responsibility and firm financial performance", *Academy of Management Journal*, vol. 31, pp. 854–872.
22. McWilliams, A., Siegel, D. (2000), "Corporate social responsibility and financial performance: correlation or mispecification?", *Strategic Management Journal*, vol. 21, pp. 603–609.
23. McWilliams, A., Siegel, D. (2001), "Corporate social responsibility: a theory of the firm perspective", *Academy of Management Review*, vol. 26, pp. 117–127.
24. Nelling, E., Webb, E. (2006), "Corporate social responsibility and financial performance: the virtuous circle revisited", Working Paper, Drexel University and Federal Reserve Bank of Philadelphia.
25. Orlitzky, M., Benjamin, J.D. (2001), "Corporate social performance and firm risk: a meta-analytic review", *Business and Society*, vol. 40, pp. 369-396.
26. Orlitzky, M., Schmidt, F.L., Rynes, S.L. (2003), "Corporate social and financial performance: a meta-analysis", *Organization Studies*, vol. 24, pp. 403–441.
27. Peloza, J. (2006), "Using corporate social responsibility as insurance for financial performance", *California Management Review*, vol. 48, pp. 52-72.
28. Preston, L.E., O'Bannon, D.P. (1997), "The corporate social-financial performance relationship", *Business and Society*, vol. 36, pp. 419 - 429.
29. Ribstein, L.E. (2005), "Accountability and responsibility in corporate governance", *Illinois Law and Economics Working Paper Series*, working paper n. LE05-015.
30. Roman, R.M., Hayibor, S., Agle, B.R. (1999), "The relationship between social and financial performance: repainting a portrait", *Business and Society*, vol. 38, pp. 109-125.
31. Rowley, T.J., Berman, S. (2000), "A brand new brand of corporate social performance", *Business and Society*, vol. 39, pp. 397–418.
32. Ruf, B., Muralidhar, K., Brown, R.M., Janney, J.J., Paul, K. (2001), "An empirical investigation of the relationship between change in corporate social performance and financial performance: a stakeholder theory
33. perspective", *Journal of Business Ethics*, vol. 32, pp. 143–156.

34. Simpson, G., Kohers, T. (2002), "The link between corporate social and financial performance: evidence from the banking industry", *Journal of Business Ethics*, vol. 35, pp. 97-109.
35. Ullmann, A. (1985), "Data in search of a theory: a critical examination of the relationship among social performance, social disclosure, and economic performance", *Academy of Management Review*, vol. 10, pp. 540-577.
36. Villalonga, B.(2004), "Intangible resources, Tobin's q and sustainability of performance differences", *Journal of Economic Behaviour and Organization*, vol. 54, pp. 205–230.
37. Waddock, S.A., Graves, S.B. (1997), "The corporate social performance-financial performance link", *Strategic Management Journal*, vol. 18, pp. 303–319.