The relationship between corporate social performance and corporate financial performance in the banking sector

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ABSTRACT

Since the 1970's Anglo-American studies have investigated the theme of corporate social responsibility (CSR). Numerous studies have focused on the analyses of the possible costs and benefits that would result from the implementation of socially responsible initiatives in order to understand whether such initiatives entail economic and financial loss, or on the contrary, whether they guarantee the achievement of a competitive advantage.
To this aim, numerous quantitative studies have been carried out to establish, largely in samples of multiple industries, the relationship between corporate social performance (CSP) and corporate financial performance (CFP). Such analyses, however, have produced conflicting results and any attempt to give a generalised and coherent conclusion has proved inadequate.
The present work attempts to investigate the possible connection between social performance and financial performance in the banking sector. In a sample of national and international banks, the eventual correlation between social performance (proxied using ethical ratings) and financial-economic performance (proxied using market and accounting ratios) has been examined. It emerges from these analyses that there is no statistically significant link that indicates any positive or negative correlation between CSP and CFP.

Keywords: *corporate social performance, corporate financial performance, Ethical rating*

Jel codes: G21, G34, M14

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)? In other words, can CSP be translated into competitive advantage or, on the contrary, drive up costs to the detriment of achieving any monetary gain?
Anglo-American studies have, for a long time, attempted to answer these questions, both on a theoretical level as well as by means of quantitative analyses.
The first part of this paper describes the four hypotheses couched in the theory of the possible link between corporate social performance and corporate financial performance and is then followed by a description of the various methodologies of quantification of CSP.
Finally, I will go over the main quantitative analyses that have attempted to establish the relationship between CSP and CFP and that, moreover, have been classified according to the kind of social performance assessments adopted. Although the results of the revised studies would seem to confirm the hypothesis of the existence of a positive relationship between the two variables, such results cannot be used in arriving at any conclusion worthy of being described as cogently valid and true, because the above studies have employed heterogeneous factors. Taking the above into consideration, quantitative analyses have been carried out on a sample of international and Italian banks, with the aim to establish the possible link between CSP and CFP in the banking sector. In an attempt to overcome the limitations of previous quantitative studies, financial performance was proxied using accounting and market ratios, while social performance was proxied using ethical ratings calculated by different operators. The latter indicator has been taken into consideration both in its synthetic version ("global ethical ratings") and by separating it into its different determinants ("analytical ethical rating") in order to understand which single ethical components present a link with the income-earning and financial performance of the companies.

The possible relationship between CSP and CFP

For a long time Anglo-American studies have tried to investigate, both at a theoretical level and through quantitative studies, if there exists an association between corporate social performance and corporate financial performance. In theory four hypotheses regarding possible relationships linking CSP and CFP have been proposed:

- *negative relationship*: in line with the notion of Milton Friedman[1], a company that opts for social responsibility would produce costs decidedly superior to profits and this would cause a deterioration in financial-economic indicators. Such costs would be ascribable to the restraints associated with geographic and business areas, to the employment of additional human resources, to the increase of expenses relative to activities or processes that satisfy the requests of stakeholders or tied to capital asset investments associated with social utilities;

[1] Friedman M. (1970).

- *positive relationship*: according to this hypothesis there would be a direct and growing relationship between CSP and CFP. However their causal relationship seems doubtful.
  It can be maintained, however, that good financial performance causes good social performance: more profitable companies, in the light of allocated profits, would have more resources for programmes concerning corporate social responsibility.
  To the contrary, however, one could imagine that for a company to become socially responsible it could then determine higher financial returns with respect to its competitors[2]. As revealed by Molteni[3], Husted & Allen[4] and Ribstein[5], this would be attributable to a reassessment of the strategy, to the improvement of processes, to the loyalty of employees, customers and of local communities. All these factors, according to Husted[6] and Orlizky & Benjamin[7], would cause a slight diminuition of the "unsystematic risk" of listed firms, the "ε" of the formula of market model:

$$R_i = \alpha_i + \beta_i * R_{mkt} + \varepsilon_i$$

where:

R_i	return of stock "i"
α_i	constant
β_I	systematic risk (not diversifiable) of stock "i"
R_{mkt}	market return
ε_i	unsystematic risk (diversifiable) of stock "i"

A further competitive advantage strictly connected to the perception of the ethical behaviour of a company would then be the development of a good reputation[8].
On this point Fombrun, Gardberg & Barnett[9] and Peloza[10] observe how the effect of social performance on financial performance is manifold: according to these authors, in order for a company to be socially responsible, it should not only provide

[2] In line with this interpretation, Berman, Wicks, Kotha & Jones elaborated two models: the "*strategic stakeholder management model*" and the "*intrinsic stakeholder commitment model".*
The first model is based on the instrumental hypothesis that managers carry out socially responsible choices so that they would be able to influence, in a positive manner, shareholders' financial returns: this could be established directly (*direct effect model*) or indirectly (*moderation model*: the orientation of managers towards stakeholders' interests would have an impact on the strategic plan of the company and, consequently, on its economic performance).
The "*intrinsic stakeholder commitment model"* instead, on the basis of a normative approach to the stakeholder theory, explains how a company, already upon its constitution, establishes the principles (therefore also its duties towards stakeholders) on the basis of its business, from which it is inspired each time it needs to take decisions. To satisfy the principal requests of stakeholders would become therefore a priority for the company with respect to whichever economical consideration: in fact company strategy would be formulated in light of certain values, which would indirectly influence also the financial and economic performance of the firm.
[3] Molteni M. (2004).
[4] Husted B.W., Allen D.B. (2001).
[5] Ribstein L.E. (2005).
[6] Husted B.W. (2002).
[7] Orlitzky M., Benjamin J.D.(2001).
[8] On this point Turban & Greening carried out an empirical analysis on the relationship between CSP and reputation.
[9] Fombrun C., Gardberg N.A., Barnett M.L. (2000).
[10] Peloza J. (2005).

incentives for incremental investments by those who operate in capital markets, but above all, should cushion the unfavourable effects on the reputation of the company.
From this point of view social responsibility could even assume, according to Klein and Davar[11], an insurance undertone, in such that it would contribute to safeguarding the reputation of the company reducing its unpredictability in the event of harmful effects (such as the withdrawal of a product), thus protecting profits and financial results;

- *mixed relationship:* the connection between CSP and CFP could not be constant in time and the relationship between the two variables could assume the form of a "U" or of an " inverted U". The relationship to "U" could be explained by the hypothesis that for a company the implementation of a CSR programme could initially provoke an increase in costs superior to profits (and therefore a decrease in financial-economic performance), a tendency that would then be reversed in the medium-long term. Instead, in various studies there are those that have talked of a relationship between the two variables in the form of an "inverted U", a theory that presupposes the existence of an "optimum" level of corporate social responsibility, beyond which to be "socially responsible in the long-term" would no longer be economically advantageous;

- *no relationship*: according to this hypothesis CSP and CFP would be two uncorrelated variables and therefore corporate social responsibility would have no impact on the profitability of companies.

The measurement of social performance: a standard for the classification of the results of empirical analyses

In order to quantitatively establish the possible relationships described in the previous paragraph various indicators such as social and financial performance proxies of companies have been used. If the theory unanimously recognizes in accounting and market measures a good approximation of the CFP, the same consensus is not true for CSP, which in various studies has been quantified according to five different methods:

a) *content analysis*: consists in the evaluation of the area dedicated to social responsibility in documents published regarding companies. One can proceed with a simple count of words, lines or sentences, to the calculation of the amount of "social" information provided or with an analysis of their quality. The use of this method presupposes the acceptance of the hypothesis that social disclosure is a good proxy of corporate social performance[12];

b) *surveys carried out using questionnaires:* this concerns questionnaires, sent to top company managers, analysed by researchers who then elaborate the answers received giving an appraisal of the level of social performance achieved by the firms. The point is that such a judgement is, by character, purely internal and

[11] Klein J., Davar H. (2003).
[12] In this respect Ullmann in 1985 explained how, out of seven previous quantitative studies he had revised on the relationship between social disclosure and CSP, only two (although the limitedness of the sample and the small period analysed did not allow him to draw general conclusions) show a positive relationship between the two variables.

predominantly reflects the orientation and the perception of managers on the theme of social responsibility.

c) *reputational measures*: these are ratios worked out by researchers or specialised journals that, on the basis of a subjective definition of social performance, calculate a score on the "goodwill" associated with the reputation a company may have. Although Moskowitz[13] and the journal, *Business and Society Review*, were the first to develop indicators of this type in 1972, the reputational measurement most used to this day is the *Corporate Reputational Index* (CRI)**.** The journal, *Fortune*, has annually drawn up a classification of American companies based on the CRI since 1983, and is continuously redrafted thanks to the carrying out of surveys on professionals. The approximation of CSP with reputational indicators implies the acceptance of two 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[14];

d) *unidimensional indicators*: this concerns indicators that express a judgement on a single aspect of various socially responsible practices that companies can undertake. The CSP proxies most used in the literature have been: dialogue with local community and philanthropy, orientation towards the client, the degree of involvement in illegal practices and respect for the environment[15];

e) *ethical rating*: it concerns a multi-dimensional index elaborated by specialized agencies. Each one of these has devised its own model of quantification on the social results of companies that forsee the selection of some indicators (for the most part concerning stakeholder typologies with which companies interface) to which is singularly attributed a score, then aggregated into a synthetic result[16] (ethical rating) according to an arithmetic or weighted average.

The five methodologies described above have been used to quantify social performance in numerous empirical studies that have established the possible relationship between CSP and CFP. Various authors have systematically revised quantitative investigations aimed at identifying the link between the two variables with the purpose of evaluating the results as a whole: such studies have largely been represented following a temporal criterion[17].

[13] Moskowitz M.R. (1972).

[14] On this point Brown and Perry spoke of a "*financial performance halo*", demonstrating how the annual rating of the journal *Fortune* was very much conditioned by previous financial results of firms.

[15] Although the evaluation of the environmental impact was born as a proxy of the more general social performance of companies, the trend of environmental responsibility has in time assumed its own autonomy. Actually a number of independent agencies have devised some environmental indicators such as the "Toxis Release Inventory", the "Govermental Pollution Indices" and the "Pollution Performance Ranking".

[16] To this end, it needs to be made clear that some specialized agencies (in reference to those analysed by us, such as Ethibel and EIRIS) give a score to each ethical component, estimated by their models, without then aggregating these values in any global index.

[17] The reference is to Aldag & Bartol (10 revised studies), Arlow & Bannon (7 revised studies), Cochran & Wood (14 revised studies), Aupperle, Carrol & Hatfield (10 revised studies), Ullmann (13 revised studies), Wokutch & McKinney (20 revised studies), Wood & Jones (34 revised studies), Pava & Kraus (21 revised studies), Griffin & Mahon (51 revised studies), Preston & O'Bannon (8 revised studies), Richardson, Welker & Hutchinson (14 revised studies), Roman, Hayibor & Agle (37 revised studies), Margolis & Walsh (95 revised studies), Margolis & Walsh (127 revised studies), Orlitzky, Schmidt & Rynes (52 revised studies), O'Connor (209 revised studies) and Allouche & Laroche (93 revised studies).

Hereafter, it has been decided to classify the previous quantitative studies according to the kind of social performance assessments adopted in the general literature with the objective of understanding whether the choice of the CSP proxy substantially influenced the results of the analyses carried out.

Of the twenty studies that used **content analysis**, one (Bowman & Haire) showed the existence of a mixed relationship between CSP and CFP, two (Ingram & Frazier; Meznar, Nigh & Kwok) of a negative relationship, eleven (Bowman; Fry & Hock; Preston; Belkaoui; Anderson & Frankle; Freedman & Stagliano; Blacconiere & Patten; Blacconiere & Northeut; Verschoor; Verschoor; Ingram) of a positive relationship and six (Abbott & Monsen; Freedman & Jaggi; Patten; Cowen, Ferreri & Parker; Jaggi & Freedman; Patten) did not find the presence of any relationship between the two variables. To these analyses we can add that of Holman, New & Singer, who established the absence of a statistically significant link between social performance and corporate risk (global and systematic).

Of the five studies that approximated corporate social performance by means of **questionnaires**, two (Parket & Eilbirt; Christmann) confirmed the hypothesis of the existence of a positive relationship between CSP e CFP, three (Aupperle, Carroll & Hatfield; O'Neill, Saunders & McCarthy; Kedia & Kuntz) instead did not identify any connection between the two variables.

Other authors chose to assume **reputational measures** as a proxy of social performance, utilizing to this purpose the *Moskowitz reputational scale*, the *Reputational Scales from Business and Society Review* or the *Fortune Reputational Index*.
Among the quantitative analyses revised using the index of Moskowitz and of the journal Business and Society Review, three (Moskowitz; Cochran & Wood; Heinze) obtained evidence of the existence of a positive relationship between CSP and CFP, one (Alexander & Buchholz) nothing, one mixed (Sturdivant & Ginger) and one negative (Vance). Of the fifteen empirical analyses that instead used the *Fortune Reputational Index* as a proxy of social performance, thirteen[18] demonstrated the existence of a positive relationship between CSP and CFP, one (McGuire, Schneeweis & Branch) of a mixed relationship, one (Fombrun & Shanley) the absence of any relationship.

Although to this day the multi-dimensional character of social performance is unquestionable, among the quantitative investigations I revised, thirty-three have proxied CSP using a **unidimensional indicator**: the most important investigations mention the relationship with local communities and philanthropy (six investigations), orientation towards clients (eight investigations), the degree of participation in illegal practices (one investigation), corporate governance (three investigations) and respect for the environment (fifteen investigations). In all, twenty-eight analyses[19] confirm the hypothesis of a positive relationship between CSP and CFP, only one analysis (Ogden and Watson) reveals a negative link between the two variables, which instead appears absent in five

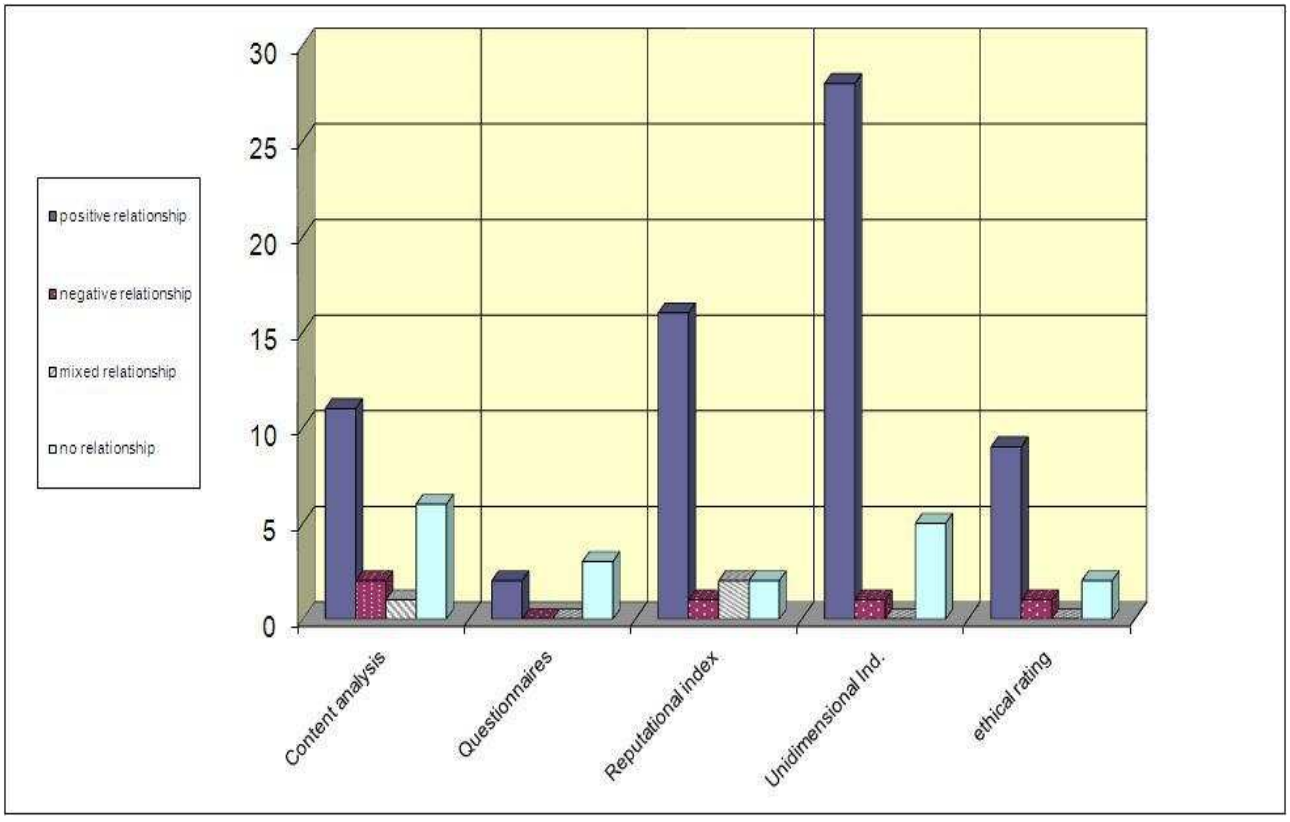
[18] The reference is to Conine & Madden; Spencer & Taylor; Wokutch & Spencer; Clarkson; McGuire, Sundgren & Schneeweis; Preston & Sapienza; Cottrill; Ticky, McGill & St. Clair; Preston & O'Bannon; Brown; Stanwick & Stanwick; Herremans, Akathaporn & MCInnes; Simerly.
[19] The reference is to Maddox & Siegfried; Fry, Keim & Meiners; Levy & Shatto; Galaskiewicz; Morris, Rehbein, Hosseini & Armacost; Crafton, Hoffer & Reilly; Reilly & Hoffer; Jarrell & Peltzman; Pruitt & Peterson; Hoffer, Pruitt & Reilly; Bromiley & Marcus; Davidson & Worrell; Wokutch & Spencer; Gompers, Ishii & Metrick; Brown & Caylor; Bragdon & Marlin; Spicer; Shane & Spicer; Stevens; Dowell, Hart & Yeung; Klassen & Whybark; Nehrt; Russo & Fouts; Marcus & Goodman; Newgren, Rasher, LaRoe & Szabo; Klassen & McLaughlin; Judge & Douglas; Porter & Van Der Linde.

investigations (Seifert, Morris & Bartkus; Fogler & Nutt; Chen & Metcalf; Ogden & Watson; Core, Guay & Rusticus).

Finally, of the most recent quantitative studies on the subject that have approximated social performance using a **multidimensional indicator (ethical rating)**, nine (Berman, Wicks, Kotha & Jones; Graves & Waddock; Griffin & Mahon; Johnson & Greening; Waddock & Graves; Ruf, Muralidhar, Brown, Janney & Paul; Knoepfel; OSIF[20]; Van de Velde, Vermeir & Corten) support the hypothesis of a positive relationship between CSP and CFP, two (Berman, Wicks, Kotha & Jones; Waddock, Graves & Gorsky) show that between the two variables there is no connection, which instead appears negative in the analyses undertaken by Brammer, Brooks & Pavelin.

Graph 1 summarizes the global results of ninety-two analyses examined.

Graph 1: the results of empirical analyses



Although the majority of contributions revised would seem to confirm the hypothesis of the existence of a positive relationship between CSP e CFP, the lack of homogeneity of these results does not allow any generalization to be applied to all markets and all sectors. The studies examined in the analyses have actually adopted factors that were not consistent with each other, such as different methodologies of social performance quantification,

[20] OSIF is the watchdog on the sustainability of firms connected to the company SAM.

different indicators of financial-economic performance[21] (accounting measures, market ratios, at times "adjusted" according to the corporate risk) as well as different historical series. Even the range of samples used in the investigations appear to be the most disparate, as does the choice of dependent and independent variables[22], of the control variables and of the methodologies of statistical analysis used (correlations, regressions, t-tests, ANOVA and *event studies*).
The majority of studies revised are also almost exclusively focused on the USA e UK markets[23] and investigate the possible link between social performance and financial-economic performance mainly on samples of multiple industries, while the CSP reveals marked peculiarities depending on the sectors firms belong to, characterised by different stakeholders often with very different needs.
Concerning the most recent investigations that have quantified the CSP by means of ethical ratings, it should be specified that the various specialized agencies base their ethical evaluations on methodologies that are subjectively formulated. This is the evident result of analyses that I have carried out (through interviews and consultation of public documents) on the procedures of quantification of ethical rating used by some agencies, which operate or have operated in Italy: AEI, Avanzi SRI Research (now Vigeo Italia), Axia, E. Capital Partners, EIRIS, Ethibel, KLD and SAM. From the investigation it has emerged how each agency subjectively interprets the concept of social performance and how this manifests itself in the implementation of different analyses and processes: this is shown in the disparity of sources used in making evaluations, of the systems used in the weighting of the results and of the methods of aggregation of these results.
The use of different methodologies by these agencies could result in the formulation of judgements that are equally different to each other even though the issuer is the same. This could, moreover, be a disadvantage for the "ethical investor" interested in understanding the ethical position of a company. In addition, the further element of heterogeneity would block the possibility of arriving at a general and coherent conclusion of the data coming from the quantitative investigations that approximated CSP with an ethical rating.
A comparative analysis has been conducted in order to understand if the various methods of quantification of ethical ratings, formulated by agencies, actually translate into different ethical judgments. Ethical ratings attributed to a number of Italian banks by three specialised agencies have been compared. These three different agencies are:

- AEI, which carries out a qualitative evaluation at eight increasing levels: E-, E, E+ (below average), EE-, EE, EE+ (average), EEE-, EEE (above average);

- Axia, which expresses a judgement aggregated in hundredths, identifying 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;

[21] The choice of accounting measures and market ratios is certainly not banal. McGuire, Sundgren and Schneeweis emphasize the unsuitability of the use of accounting measures, too often distorted by the manipulation of managers. On the other hand, however, also the use of market ratios needs to be evaluated with attention, since it presupposes the existence of efficient markets in an informative and evaluative sense.
[22] Social performance has alternatively been employed as a dependent or independent variable (in the majority of cases) with respect to financial performance.
[23] Some 95% of the 92 studies revised used a sample of firms operating in Anglo-American countries.

- SAM, which calculates the ethical rating in hundredths, even if the data that have been provided are expressed in qualitative terms on a scale that increases from 1 to 5.

Results are reported in graph 2.

Graph 2 : ethical ratings of some Italian banks

	Rating by Axia (December 2005)	Rating by AEI (May 2006)	Rating by SAM (March 2006)
Monte dei Paschi di Siena	89,2 / 100	EE - / EEE	***** / *****
San Paolo IMI	81,3 / 100	EE - / EEE	***** / *****
Unicredito	82,3 / 100	EE / EEE	***** / *****
BNL	70,4 / 100	suspended	**** / *****
Banca Fideuram	69,6 / 100	E / EEE	*** / *****
Banca Intesa	37,5 / 100	E / EEE	*** / *****
Banche Popolari Unite	57,7 / 100	EE / EEE	*** / *****
Banca Pop. di Verona e Novara	70,3 / 100	EE+ / EEE	*** / *****
Mediobanca	-	E / EEE	** / *****
Mediolanum	-	E - / EEE	** / *****
Banca Lombarda	77,1 / 100	E + ° / EEE	* / *****
Capitalia	53,9 / 100	suspended	* / *****
Banca Popolare di Milano	75,5 / 100	EE / EEE	-

° rating updated in July 2004

As hypothesized, it appears evident that to some institutions (Monte dei Paschi di Siena, San Paolo IMI, Unicredito, Banca Fideuram, Banca Intesa, Banca Lombarda e Capitalia) the specialized agencies have attributed somewhat different evaluations. This shows how, to this day, no unambiguous or "certain" method of determination of ethical ratings exists, which allows the objective quantification of CSP. In absence of a universally accepted model, future empirical investigations must take this peculiarity into account.

The sample

With the aim of verifying the relationship between CSP and CFP a quantitative analysis on a sample of 21 international banks[24] rated on 31/12/2005 by Ethibel and 16 Italian banks[25] rated on 31/12/2005 by AXIA has been developed.
A further investigation to examine the link between corporate governance and financial-economic performance was carried out on a sample of 31 Italian banks[26] rated in April 2005 by AEI.
The decision to concentrate on the banking sector was dictated by the awareness that the banks, even in the light of recent financial scandals, are at present more than ever opting for the protection of their reputation; it is not by chance that banks in particular, both in Italy and at international level, have been among the first companies to implement socially responsible programmes and initiatives.

In the analyses presented CSP was approximated using both ethical "analytical" ratings (relative to each single component of ethics evaluated) as well as utilizing a "global" rating (achieved by the aggregation of single analytical ratings) relative to the year 2005. The "global" ethical rating is instrumental in establishing the relationship between "global" corporate social performance and its income and financial performance. The consideration of the "analytical" ethical rating should instead enable the investigation of the possible relationship that each single component of ethics has with the CFP indicators.
With the aim of considering the different quantitative methodologies of ethical ratings adopted by the agencies multiparametric indicators have been employed in the analyses, calculated by the three specialized agencies previously mentioned: Ethibel, Axia and AEI.

CFP, however, was quantified by means of a number of accounting and market measures calculated on 31/12/2005.

[24] These are the banks monitored by Ethibel: 3I Group, Abbey National plc, ABN AMRO, Australian and New Zealand Banking Group, Banca Monte Dei Paschi Di Siena, Bank of America, Bank of Montreal, Barclays plc, Commerzbank AG, Dexia N.V., Emporiki Bank, Hachijuni Bank, HBOS plc, HVB Group, Lloyds TSB Group, National Australia Bank Ltd., Royal bank of Canada, Sumitomo Mitsui Financial Group, Svenska Handelsbanken, Swedbank (FöreningsSparbanken) AB, Westpac Banking Corporation.
[25] These are the banks monitored by Axia: Banca Antonveneta, Banca Carige, Banca Fideuram, Banca Intesa, Banca Lombarda, Banca Milano, Banca Monte dei Paschi di Siena, Banca Popolare Emilia Romagna, Banca Popolare Verona e Novara, Banche Popolari Unite, Bnl, Capitalia, Credito Bergamasco, Sanpaolo Imi, Unicredito and Unipol.
[26] These are the banks monitored by AEI: Banca Antonveneta, Banca Carige, Banco di Desio e della Brianza, Banca Fideuram, Banca Finnat, Banca IFIS, Banca Intermobiliare, Banca Intesa, Banca Lombarda, Banca MPS, Banca Popolare di Etruria e Lazio, Banca Popolare di Spoleto, Banca Popolare di Verona e Novara, Banca Popolare di Intra, Banca Popolare di Lodi, Banca Popolare di Milano, Banca Profilo, Banche Popolari Unite, BNL, Capitalia, Cassa di Risparmio di Firenze, Credito Artigiano, Credito Bergamasco, Credito Emiliano, Credito Valtellinese, Fineco Group, Mediobanca, Mediolanum, Meliorbanca, Reti Bancarie, San Paolo IMI and Unicredito.

For that which regards accounting measures (obtained by BankScope®) three indicators have been used: the Return on Average Equity (ROAE), the Return on Average Assets (ROAA) and the Cost to Income Ratio. ROAE and ROAA are profitability ratios, while Cost/Income is an efficiency ratio.
Market performance, however, has been approximated by means of three market multiples: the Market to Book Value, the Price to Book Value and the Price/Earning adjusted, calculated from the databank, Datastream®.

The existence of a link between social performance and economic-financial performance has been examined by means of the establishment of a linear bivariated correlation using the statistical software SPSS®: to this regard, the significance levels used for the tests were 1% and 5%.

Results and conclusions

The first part of the investigation concerns itself with a sample of international banks rated by Ethibel and with a sample of Italian banks rated by Axia, for which was established the correlation between "global" ethical ratings[27] and accounting ratios (tables 1 and 2 in the appendix) and between "global" ethical ratings and market ratios (tables 3 and 4). No statistically significant link has been shown in any of the cases examined.

Subsequently, a further possible correlation between "analytical" ethical ratings and financial-economic indicators was examined, in order to understand if and how each single ethical component used in the determination of the synthetic ethical rating could have an impact on the economic and financial performance of firms subject to analyses.
Of the four ethical parameters examined by Ethibel in the calculation of the rating ("internal social policy", "external social policy", "environmental policy" and "economic policy") not one showed a quantitatively significant link with accounting ratios (table 5) and market ratios (table 6) out of the international banks included in the sample. An exception is represented by "internal social policy", which presents a negative relationship with ROAA, Price to Book Value and Price/Earning Ratio: this could indicate how socially responsible management of employees in international banks involves costs superior to benefits.
A further investigation was carried out on Italian banks to which Axia assigned an ethical rating, subdivided into the following components: "product", "environment", "territory", "minorities", "transparency", "international operations", "corporate governance", "employees", "social balance". Although the majority of ethical indicators have been shown to have no correlation with accounting ratios (table 7) and market ratios (table 8), it emerged that there was a positive link between the following variables: "corporate governance" and ROAE, "employees" and Cost/income, "international operations" and Market to Book Value, "international operations" and Price to Book Value. These results could be interpreted as evidence that good governance of a bank has positive effects on its income results, that management that is "responsible" for its employees can increase efficiency and that the transparency of credit institutions in international operations can have a bearing on the preferences of investors. Moreover, the investigation shows that there is a negative link between "transparency" and Cost/Income: this could indicate how

[27] Concerning ethical rating attributed to international banks by Ethibel, it should be specified that this operator does not elaborate any synthetic judgement, but disaggregates score relative to the components of ethicity envisaged by his model (social internal policy, social external policy, environmental policy and economic policy). In order to verify the correlation between "global" ethical rating and CFP I have therefore taken measures to normalize these values aggregating them in a single scalar.

the systematic communication of objectives, results and strategies with respect to the market, shareholders, clients and suppliers implies a “sacrifice” in terms of efficiency ultimately to be paid by the banks’ balance sheet.

In order to confirm the existence of a positive link (resulting in analysis of data belonging to Axia) between “corporate governance” and economic-financial performance in Italian credit institutions, in a sample of 31 banks rated by AEI, the correlation between corporate governance rating (disaggregated into the two components “ownership” and “board of directors”) and accounting ratios (table 9) and market ratios (table 10) has been tested.
“Governance” has not shown any significant link with market multiples, but has shown a negative link with ROAE e ROAA.
This investigation would seem to confirm the hypothesis that those banks that have the most transparent and efficient ownership structure are also the least profitable for shareholders, contradicting the results of previous analyses, which had identified the existence of a positive link between good governance of Italian credit institutions and their economic results. To this end, it needs to be made clear that the sample examined by AEI, unlike that of Axia, includes many popular and cooperative banks that respectively approach or substitute lucrative objectives, essential to banking activity, with mutualistic ones. Furthermore, taking into account that popular and cooperative banks are notoriously more orientated towards patrimonial consolidation rather than to profitability, it is difficult to compare the investigations carried out on the data of Axia and of AEI.

From the analyses carried out, in particular from those relative to the national market (for which the significance of the sample was decidedly more pronounced) no clear evidence of a significant relationship between CSP and CFP emerged.
According to an initial point of view this would be a reassuring result, since it would negate the hypothesis of the existence of a negative correlation between social performance and financial performance: that would demonstrate that Italian banks have succeeded to ethically orientate a part of their investments (and, therefore, of their costs) without having to “bear” any sacrifice in terms of economic results.
From a different point of view the empirical investigations undertaken could instead provide evidence of the inability of investments in CSR to realize financial advantageous for the banking institutions.
The results of analyses carried out on banks do not allow us to confirm either of the above-mentioned hypotheses: such investigations in fact refer to a sample of firms evaluated on a one-year horizon and do not allow us to identify the possible link of causalty between the variables.
This paper has however attempted to provide an initial contribution to the study of the relationship between CSP e CFP in relation to the Italian market and to the banking sector in particular. Following the demonstration of the lack of homogenity of ethical quantitative judgements between the various agencies specialized in the same issuing banks, the CSP has been approximated by means of an ethical rating calculated by different agencies, a peculiarity that future research on this theme should take into consideration.

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Appendix

Table 1: The correlation between CSP (global ethical rating by Ethibel) and accounting ratios

		global rating (Ethibel)	ROAE	ROAA	Cost to Income Ratio
global rating (Ethibel)	Pearson Correlation	1	,211	-,239	-,065
	Sig. (2-tailed)	.	,372	,311	,792
	N	21	20	20	19
ROAE	Pearson Correlation	,211	1	-,202	-,199
	Sig. (2-tailed)	,372	.	,392	,414
	N	20	20	20	19
ROAA	Pearson Correlation	-,239	-,202	1	-,758(**)
	Sig. (2-tailed)	,311	,392	.	,000
	N	20	20	20	19
Cost to Income Ratio	Pearson Correlation	-,065	-,199	-,758(**)	1
	Sig. (2-tailed)	,792	,414	,000	.
	N	19	19	19	19

** Correlation is significant at the 0,01 level (2-tailed)

Table 2: The correlation between CSP (global ethical rating by Axia) and accounting ratios

		global rating (Axia)	ROAE	ROAA	Cost to Income Ratio
global rating (Axia)	Pearson Correlation	1	,052	,015	,105
	Sig. (2-tailed)	.	,847	,957	,700
	N	16	16	16	16
ROAE	Pearson Correlation	,052	1	,879(**)	-,419
	Sig. (2-tailed)	,847	.	,000	,106
	N	16	16	16	16
ROAA	Pearson Correlation	,015	,879(**)	1	-,156
	Sig. (2-tailed)	,957	,000	.	,564
	N	16	16	16	16
Cost to Income Ratio	Correlazione di Pearson	,105	-,419	-,156	1
	Sig. (2-tailed)	,700	,106	,564	.
	N	16	16	16	16

** Correlation is significant at the 0,01 level (2-tailed)

Table 3: The correlation between CSP (global ethical rating by Ethibel) and market ratios

		global rating (Ethibel)	MTBV	PTBV	P/E RATIO (Adj)
global rating (Ethibel)	Pearson Correlation	1	-,145	-,250	-,518
	Sig. (2-tailed)	.	,577	,351	,058
	N	21	17	16	14
MTBV	Pearson Correlation	-,145	1	,939(**)	,817(**)
	Sig. (2-tailed)	,577	.	,000	,000
	N	17	17	16	14
PTBV	Pearson Correlation	-,250	,939(**)	1	,939(**)
	Sig. (2-tailed)	,351	,000	.	,000
	N	16	16	16	13
P/E RATIO (Adj)	Pearson Correlation	-,518	,817(**)	,939(**)	1
	Sig. (2-tailed)	,058	,000	,000	.
	N	14	14	13	14

** Correlation is significant at the 0,01 level (2-tailed)

Table 4: The correlation between CSP (global ethical rating by Axia) and market ratios

		global rating (Axia)	MTBV	PTBV	P/E RATIO (Adj)
global rating (Axia)	Pearson Correlation	1	,126	-,157	,072
	Sig. (2-tailed)	.	,681	,609	,815
	N	16	13	13	13
MTBV	Pearson Correlation	,126	1	,654(*)	,301
	Sig. (2-tailed)	,681	.	,015	,318
	N	13	13	13	13
PTBV	Pearson Correlation	-,157	,654(*)	1	,454
	Sig. (2-tailed)	,609	,015	.	,119
	N	13	13	13	13
P/E RATIO (Adj)	Pearson Correlation	,072	,301	,454	1
	Sig. (2-tailed)	,815	,318	,119	.
	N	13	13	13	13

* Correlation is significant at the 0,05 level (2-tailed)

Table 5: The correlation between CSP (analytical ethical rating by Ethibel) and accounting ratios

		INTERNAL SOCIAL POLICY	ENVIRON-MENTAL POLICY	EXTERNAL SOCIAL POLICY	ECONOMIC POLICY	ROAE	ROAA	Cost to Income Ratio
INTERNAL SOCIAL POLICY	Pearson Correlation	1	,374	-,247	,197	,146	-,624(**)	,228
	Sig. (2-tailed)	.	,095	,281	,393	,538	,003	,347
	N	21	21	21	21	20	20	19
ENVIRON-MENTAL POLICY	Pearson Correlation	,374	1	,402	,225	,088	-,027	,141
	Sig. (2-tailed)	,095	.	,071	,326	,711	,909	,564
	N	21	21	21	21	20	20	19
EXTERNAL SOCIAL POLICY	Pearson Correlation	-,247	,402	1	,247	,063	,203	-,199
	Sig. (2-tailed)	,281	,071	.	,281	,791	,390	,415
	N	21	21	21	21	20	20	19
ECONOMIC POLICY	Pearson Correlation	,197	,225	,247	1	,268	-,177	-,313
	Sig. (2-tailed)	,393	,326	,281	.	,254	,456	,191
	N	21	21	21	21	20	20	19
ROAE	Pearson Correlation	,146	,088	,063	,268	1	-,202	-,199
	Sig. (2-tailed)	,538	,711	,791	,254	.	,392	,414
	N	20	20	20	20	20	20	19
ROAA	Pearson Correlation	-,624(**)	-,027	,203	-,177	-,202	1	-,758(**)
	Sig. (2-tailed)	,003	,909	,390	,456	,392	.	,000
	N	20	20	20	20	20	20	19
Cost to Income Ratio	Pearson Correlation	,228	,141	-,199	-,313	-,199	-,758(**)	1
	Sig. (2-tailed)	,347	,564	,415	,191	,414	,000	.
	N	19	19	19	19	19	19	19

** Correlation is significant at the 0,01 level (2-tailed)

Table 6: The correlation between CSP (analytical ethical rating by Ethibel) and market ratios

		INTERNAL SOCIAL POLICY	ENVIRON-MENTAL POLICY	EXTERNAL SOCIAL POLICY	ECONOMIC POLICY	MTBV	PTBV	P/E RATIO (ADJ)
INTERNAL SOCIAL POLICY	Pearson Correlation	1	,374	-,247	,197	-,439	-,576(*)	-,654(*)
	Sig. (2-tailed)	.	,095	,281	,393	,078	,020	,011
	N	21	21	21	21	17	16	14
ENVIRON-MENTAL POLICY	Pearson Correlation	,374	1	,402	,225	-,096	-,067	-,207
	Sig. (2-tailed)	,095	.	,071	,326	,713	,804	,477
	N	21	21	21	21	17	16	14
EXTERNAL SOCIAL POLICY	Pearson Correlation	-,247	,402	1	,247	,260	,200	,212
	Sig. (2-tailed)	,281	,071	.	,281	,314	,457	,468
	N	21	21	21	21	17	16	14
ECONOMIC POLICY	Pearson Correlation	,197	,225	,247	1	-,117	-,218	-,550(*)
	Sig. (2-tailed)	,393	,326	,281	.	,656	,417	,042
	N	21	21	21	21	17	16	14
MTBV	Pearson Correlation	-,439	-,096	,260	-,117	1	,939(**)	,817(**)
	Sig. (2-tailed)	,078	,713	,314	,656	.	,000	,000
	N	17	17	17	17	17	16	14
PTBV	Pearson Correlation	-,576(*)	-,067	,200	-,218	,939(**)	1	,939(**)
	Sig. (2-tailed)	,020	,804	,457	,417	,000	.	,000
	N	16	16	16	16	16	16	13
P/E RATIO (Adj)	Pearson Correlation	-,654(*)	-,207	,212	-,550(*)	,817(**)	,939(**)	1
	Sig. (2-tailed)	,011	,477	,468	,042	,000	,000	.
	N	14	14	14	14	14	13	14

** Correlation is significant at the 0,01 level (2-tailed)

* Correlation is significant at the 0,05 level (2-tailed)

Table 7: The correlation between CSP (analytical ethical rating by Axia) and accounting ratios

		product	environment	territory	minorities	transparency	international operations	corporate governance	employees	social balance	ROAE	ROAA	Cost to Income Ratio
product	Pearson Correlation	1	,584(*)	,532(*)	,475	,070	,299	,276	,618(*)	,582(*)	-,205	-,125	,350
	Sig. (2-tailed)	.	,017	,034	,063	,798	,260	,300	,011	,018	,446	,644	,184
	N	16	16	16	16	16	16	16	16	16	16	16	16
environment	Pearson Correlation	,584(*)	1	,697(**)	,735(**)	,081	,329	,009	,501(*)	,808(**)	-,070	-,143	,097
	Sig. (2-tailed)	,017	.	,003	,001	,764	,213	,972	,048	,000	,798	,598	,721
	N	16	16	16	16	16	16	16	16	16	16	16	16
territory	Pearson Correlation	,532(*)	,697(**)	1	,727(**)	,363	,256	,299	,403	,696(**)	,062	-,103	-,173
	Sig. (2-tailed)	,034	,003	.	,001	,167	,338	,261	,122	,003	,821	,705	,522
	N	16	16	16	16	16	16	16	16	16	16	16	16
minorities	Pearson Correlation	,475	,735(**)	,727(**)	1	,314	,337	,246	,255	,530(*)	-,198	-,272	-,036
	Sig. (2-tailed)	,063	,001	,001	.	,237	,201	,358	,341	,035	,463	,307	,894
	N	16	16	16	16	16	16	16	16	16	16	16	16
transparency	Pearson Correlation	,070	,081	,363	,314	1	,319	,370	-,365	,102	,182	,188	-,501(*)
	Sig. (2-tailed)	,798	,764	,167	,237	.	,229	,159	,165	,707	,500	,487	,048
	N	16	16	16	16	16	16	16	16	16	16	16	16
international operations	Pearson Correlation	,299	,329	,256	,337	,319	1	,268	-,272	,097	,055	-,084	-,205
	Sig. (2-tailed)	,260	,213	,338	,201	,229	.	,316	,308	,722	,840	,757	,447
	N	16	16	16	16	16	16	16	16	16	16	16	16
corporate governance	Pearson Correlation	,276	,009	,299	,246	,370	,268	1	,114	,035	,527(*)	,372	-,474
	Sig. (2-tailed)	,300	,972	,261	,358	,159	,316	.	,674	,899	,036	,156	,064
	N	16	16	16	16	16	16	16	16	16	16	16	16

employees	Pearson Correlation	,618(*)	,501(*)	,403	,255	-,365	-,272	,114	1	,708(**)	,163	,264	,498(*)
	Sig. (2-tailed)	,011	,048	,122	,341	,165	,308	,674	.	,002	,548	,323	,050
	N	16	16	16	16	16	16	16	16	16	16	16	16
social balance	Pearson Correlation	,582(*)	,808(**)	,696(**)	,530(*)	,102	,097	,035	,708(**)	1	,131	,176	,248
	Sig. (2-tailed)	,018	,000	,003	,035	,707	,722	,899	,002	.	,628	,515	,355
	N	16	16	16	16	16	16	16	16	16	16	16	16
ROAE	Pearson Correlation	-,205	-,070	,062	-,198	,182	,055	,527(*)	,163	,131	1	,879(**)	-,419
	Sig. (2-tailed)	,446	,798	,821	,463	,500	,840	,036	,548	,628	.	,000	,106
	N	16	16	16	16	16	16	16	16	16	16	16	16
ROAA	Pearson Correlation	-,125	-,143	-,103	-,272	,188	-,084	,372	,264	,176	,879(**)	1	-,156
	Sig. (2-tailed)	,644	,598	,705	,307	,487	,757	,156	,323	,515	,000	.	,564
	N	16	16	16	16	16	16	16	16	16	16	16	16
Cost to Income Ratio	Pearson Correlation	,350	,097	-,173	-,036	-,501(*)	-,205	-,474	,498(*)	,248	-,419	-,156	1
	Sig. (2-tailed)	,184	,721	,522	,894	,048	,447	,064	,050	,355	,106	,564	.
	N	16	16	16	16	16	16	16	16	16	16	16	16

** Correlation is significant at the 0,01 level (2-tailed)

* Correlation is significant at the 0,05 level (2-tailed)

Table 8: The correlation between CSP (analytical ethical rating by Axia) and market ratios

		product	environ-ment	territory	minorities	transpa-rency	Internatio-nal ope-rations	corporate governance	employees	social balance	MTBV	PTBV	P/E RATIO (Adj)
product	Pearson Correlation	1	,584(*)	,532(*)	,475	,070	,299	,276	,618(*)	,582(*)	,332	,253	,394
	Sig. (2-tailed)	.	,017	,034	,063	,798	,260	,300	,011	,018	,268	,404	,183
	N	16	16	16	16	16	16	16	16	16	13	13	13
environment	Pearson Correlation	,584(*)	1	,697(**)	,735(**)	,081	,329	,009	,501(*)	,808(**)	,339	-,186	-,057
	Sig. (2-tailed)	,017	.	,003	,001	,764	,213	,972	,048	,000	,258	,543	,854
	N	16	16	16	16	16	16	16	16	16	13	13	13
territory	Pearson Correlation	,532(*)	,697(**)	1	,727(**)	,363	,256	,299	,403	,696(**)	-,059	-,158	-,077
	Sig. (2-tailed)	,034	,003	.	,001	,167	,338	,261	,122	,003	,849	,606	,804
	N	16	16	16	16	16	16	16	16	16	13	13	13
minorities	Pearson Correlation	,475	,735(**)	,727(**)	1	,314	,337	,246	,255	,530(*)	,303	-,080	,315
	Sig. (2-tailed)	,063	,001	,001	.	,237	,201	,358	,341	,035	,315	,795	,295
	N	16	16	16	16	16	16	16	16	16	13	13	13
transpa-rency	Pearson Correlation	,070	,081	,363	,314	1	,319	,370	-,365	,102	,251	-,053	-,035
	Sig. (2-tailed)	,798	,764	,167	,237	.	,229	,159	,165	,707	,408	,864	,909
	N	16	16	16	16	16	16	16	16	16	13	13	13
international operations	Pearson Correlation	,299	,329	,256	,337	,319	1	,268	-,272	,097	,728(**)	,690(**)	,214
	Sig. (2-tailed)	,260	,213	,338	,201	,229	.	,316	,308	,722	,005	,009	,483
	N	16	16	16	16	16	16	16	16	16	13	13	13
corporate governance	Pearson Correlation	,276	,009	,299	,246	,370	,268	1	,114	,035	,214	,267	,274
	Sig. (2-tailed)	,300	,972	,261	,358	,159	,316	.	,674	,899	,482	,378	,365
	N	16	16	16	16	16	16	16	16	16	13	13	13

employees	Pearson Correlation	,618(*)	,501(*)	,403	,255	-,365	-,272	,114	1	,708(**)	-,347	-,344	,174
	Sig. (2-tailed)	,011	,048	,122	,341	,165	,308	,674	.	,002	,245	,250	,570
	N	16	16	16	16	16	16	16	16	16	13	13	13
social balance	Pearson Correlation	,582(*)	,808(**)	,696(**)	,530(*)	,102	,097	,035	,708(**)	1	,080	-,188	-,066
	Sig. (2-tailed)	,018	,000	,003	,035	,707	,722	,899	,002	.	,796	,537	,832
	N	16	16	16	16	16	16	16	16	16	13	13	13
MTBV	Pearson Correlation	,332	,339	-,059	,303	,251	,728(**)	,214	-,347	,080	1	,654(*)	,301
	Sig. (2-tailed)	,268	,258	,849	,315	,408	,005	,482	,245	,796	.	,015	,318
	N	13	13	13	13	13	13	13	13	13	13	13	13
PTBV	Pearson Correlation	,253	-,186	-,158	-,080	-,053	,690(**)	,267	-,344	-,188	,654(*)	1	,454
	Sig. (2-tailed)	,404	,543	,606	,795	,864	,009	,378	,250	,537	,015	.	,119
	N	13	13	13	13	13	13	13	13	13	13	13	13
P/E RATIO (Adj)	Pearson Correlation	,394	-,057	-,077	,315	-,035	,214	,274	,174	-,066	,301	,454	1
	Sig. (2-tailed)	,183	,854	,804	,295	,909	,483	,365	,570	,832	,318	,119	.
	N	13	13	13	13	13	13	13	13	13	13	13	13

** Correlation is significant at the 0,01 level (2-tailed)

* Correlation is significant at the 0,05 level (2-tailed)

Table 9: The correlation between CSP (analytical ethical rating by AEI) and accounting ratios

		governance global rating	ownership	board of directors	ROAE	ROAA	Cost to Income Ratio
governance global rating	Pearson Correlation	1	,962(**)	,743(**)	-,446(*)	-,530(**)	,101
	Sig. (2-tailed)	.	,000	,000	,012	,002	,590
	N	32	32	32	31	31	31
ownership	Pearson Correlation	,962(**)	1	,532(**)	-,419(*)	-,513(**)	,103
	Sig. (2-tailed)	,000	.	,002	,019	,003	,583
	N	32	32	32	31	31	31
board of directors	Pearson Correlation	,743(**)	,532(**)	1	-,341	-,369(*)	,058
	Sig. (2-tailed)	,000	,002	.	,060	,041	,756
	N	32	32	32	31	31	31
ROAE	Pearson Correlation	-,446(*)	-,419(*)	-,341	1	,893(**)	-,092
	Sig. (2-tailed)	,012	,019	,060	.	,000	,622
	N	31	31	31	31	31	31
ROAA	Pearson Correlation	-,530(**)	-,513(**)	-,369(*)	,893(**)	1	-,225
	Sig. (2-tailed)	,002	,003	,041	,000	.	,223
	N	31	31	31	31	31	31
Cost to Income Ratio	Pearson Correlation	,101	,103	,058	-,092	-,225	1
	Sig. (2-tailed)	,590	,583	,756	,622	,223	.
	N	31	31	31	31	31	31

** Correlation is significant at the 0,01 level (2-tailed)

* Correlation is significant at the 0,05 level (2-tailed)

Table 10: The correlation between CSP (analytical ethical rating by AEI) and market ratios

		governance global rating	ownership	board of directors	MTBV	PTBV	P/E RATIO (Adj)
governance global rating	Pearson Correlation	1	,962(**)	,743(**)	-,186	-,244	,036
	Sig. (2-tailed)	.	,000	,000	,372	,240	,868
	N	32	32	32	25	25	24
ownership	Pearson Correlation	,962(**)	1	,532(**)	-,111	-,168	-,023
	Sig. (2-tailed)	,000	.	,002	,596	,421	,914
	N	32	32	32	25	25	24
board of directors	Pearson Correlation	,743(**)	,532(**)	1	-,330	-,373	,187
	Sig. (2-tailed)	,000	,002	.	,107	,067	,380
	N	32	32	32	25	25	24
MTBV	Pearson Correlation	-,186	-,111	-,330	1	,878(**)	,089
	Sig. (2-tailed)	,372	,596	,107	.	,000	,678
	N	25	25	25	25	25	24
PTBV	Pearson Correlation	-,244	-,168	-,373	,878(**)	1	,178
	Sig. (2-tailed)	,240	,421	,067	,000	.	,406
	N	25	25	25	25	25	24
P/E RATIO (Adj)	Pearson Correlation	,036	-,023	,187	,089	,178	1
	Sig. (2-tailed)	,868	,914	,380	,678	,406	.
	N	24	24	24	24	24	24

** Correlation is significant at the 0,01 level (2-tailed)

* Correlation is significant at the 0,05 level (2-tailed)