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IS CORPORATE SOCIAL RESPONSIBILITY REWARDED BY INVESTORS? AN ANALYSIS IN THE CONTEXT OF CANADIAN EXTRACTIVE INDUSTRIES

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IS CORPORATE SOCIAL RESPONSIBILITY REWARDED BY INVESTORS? AN ANALYSIS IN THE CONTEXT OF THE CANADIAN EXTRACTIVE INDUSTRIES

This article examines if investors reward corporate social performance. The investigation is conducted in the context of public Canadian firms operating in the extractive industries. The findings of our study suggest that firm market-value is positively related to an aggregated indicator of corporate social responsibility (CSR), elaborated by the firm Jantzi Research. We also investigate if the data on our sample firms upheld the view that firm market-value is linked to the components of the aggregated metric used to gauge CSR. Those components reflect corporate performance concerning the relationship with key stakeholders or issues. The study found a positive and statistically significant relationship between firm market-value and the ratings on Community and Society and Employees. Nonetheless, the link appears to be statistically insignificant in the cases of Environment, Human Rights and Corporate Governance. We provide explanations for our results and offer suggestions for future research.

Keywords: Corporate social responsibility, Firm valuation, Firm stakeholders

Introduction

Scholars started debating decades ago about the impact that corporate social performance (CSP) may have on corporate financial performance (CFP) (Fu and Jia, 2012). Friedman's frequently quoted assertion that "a corporation's social responsibility is to make a profit" (Friedman, 1962, quoted by Fu and Jia, 2012) sparked indeed a lively debate among scholars and practitioners on the firm-value merits of CSP investments that continues to this day.

According to Lundgren (2011) the overabundance of research about the impact of corporate social responsibility (CSR) on the economic prospects of firms had led to 10-15 surveys of previous literature. The author claims that the empirical evidence (although inconclusive) seems to suggest that CSR increases the firms' financial performance (Lundgren, 2011). Rigorous meta-analytical examinations of the CSP and CFP relationship empirical examinations provided support for the vision that CSP can be a driver of the firm's financial performance (Orlitzky, 2001; Orlitzky et al., 2003; Meng-Ling's 2006; Margolis et al. 2009). Margolis et al. conducted a meta-analysis of 251 studies presented in 214 manuscripts, the most comprehensive of this type of studies according to their claim. They found that the overall effect is positive and statistically significant, although small. For the overall sample of studies, their study reports that the size of the effect of CSP on CFP appears to be larger than that coming out from other

meta-analytical studies on board composition and share ownership among officers and directors, albeit much smaller than the effect on CFP of the implementation of high performance work practices.

Our study examines the potential impact of CSR on firms' market value. Its contribution to the academic literature is fourfold. First, it analyzes the topic at hand in the particular context of the Canadian capital markets, and a particular group of firms: Canadian firms devoted to extraction of natural resources, which are constituents of the S&P/TSX 60, i.e. the largest public Canadian firms. According to our calculations, our sample of firms represented 37% of the market value of the S&P/TSX 60 index by the end of July, 2013. There are two reasons behind our approach. Firstly, most scholarly research on the impact of CSR on the bottom line has focused on the experience of US firms. For instance, only a handful of the manuscripts considered in the meta-analysis study of Margolis et al. (2009) contain in their title a word suggesting a study on a specific country other than the US. It is possible to expect, however, differences in the nature of CSR activities that firms embrace in different countries, and consequently in their impact on the market-performance measurements. In that regard, Zhao (2012) argues that local socio-political institutions confer distinctive features to CSR across national contexts. Moreover, Doh and Guay (2006, cited by McWilliams et al., 2006) present qualitative evidence that differences in the institutional environments of Europe and the US explain different expectations regarding the propensity of firms to be socially responsible. Secondly, our choice of focusing in a single sector, namely that composed of industries related to extraction of natural resources (oil, gas and metals) follows Griffin and Mahon (1997) recommendation to examine the link between CSP and CFP in the context of individual industries, and not across the board. In their vision industries are confronted to unique pressures from their environment, a uniqueness shaping the social engagements of their firms belonging to them. Lundgreen's (2011) modeling of the impact of CSR on firms' economic performance led him to conclude that such an impact is likely to differ across industries or sectors.
Our article examines the potential impact of an aggregate measure of CSR, but also the consequences on the market valuation of firms of the decisions to serve particular stakeholders above the obligations of the law. The Economist (2008) argues that is not only a firm decision to invest in CSR what matters, but also its decision to invest in CSR in the "right" way, i.e. to serve the stakeholders that matters to the firm.

A third contribution of our article is connected with the examination with the use of Ohlson (1995) model to examine the subject of our study. Ohlson model identifies two fundamental variables to explain stock prices: book value of equity and earnings, allowing the researcher to isolate the impact of other explanatory variables which are later added to the analysis. To the best of our knowledge this model has not been employed before in the literature to shed light on the issue at hand. A fourth contribution of our article is the use of the Jantzi Research's Canadian Social Investment Database (CSID) to gauge the level of CSR of the Canadian firms in our sample. CSID contains social and environmental profiles of companies included in the S&P/TSX Composite Index. Similar information is regularly elaborated by the research firm KLD to rate CSR performance of US and non-US firms, among them Canadian firms. However, it is

unlikely that KLD's coverage of Canadian companies is as broad as that of Jantzi Research, which focuses on Canadian firms. For instance, Mahoney and Roberts (2004) reported that CSID presented information on CSR performance for constituents of the S&P/TSX 300 during the period 1995-99, exhibiting a wide coverage of this group of firms. Furthermore, akin to KLD, Jantzi Research data comes from "third-party auditing," a term employed by Margolis et al. to designate the data elaborated on the basis of systematic assessment of data by researchers who evaluate a company along a set of criteria. Previous literature has raised objections to the use of CSP metrics based on self-assessment of cooperate insiders or on ratings of most admired companies (Margolis et al. 2009; Brown and Perry, 1994).

The rest of the article goes as follows. Next section discusses previous literature and states the hypotheses of the study. A third section presents and discusses the results of the article. A final section wraps up the paper and suggests avenues for future research.

Literature review and statement of hypotheses

Scholars have been strongly debating for a long time the claim that firms outperforming others in their relationship with society at large, or at least some segments of it, can exhibit better financial performance (Margolis et al. 2009; Fu and Jia, 2012). Friedman's (1970) article of opinion is frequently cited as a reference of the scholars who are skeptical about the consequences of firms devoting a portion of their resources to improve their relationship with the societies where they operate (see for instance McWilliams and Siegel, 2001 and Griffin and Mahon, 1997). Friedman's argument is at once positive and normative. From a positive approach, Friedman sees CSR actions as an indication of the presence of agency costs. Managers of firms that decide to invest resources in CSR are doing so with money that legitimately belongs to the owners of the firm, who have hired them as agents to pursue their interests. Thus, executives refraining to increase prices, or deciding to reduce pollution beyond the requirements of the law (two of Friedman's actual examples) are spending other people's money. Executive engagement in CSR is equivalent in the Friedmanian view to the imposing a tax on stockowners, without the latter's consent nor any possible checks and balances, as it is the case when parliaments impose taxes on citizens, which are later raised and spent by the executive branch of governments. Thus, in accordance to Friedman, leaving to managers the decision of which societal objectives to serve, and how to spend the corporation resources on the achievement of those goals, amounts to subversion of the democratic process.

Other scholars have articulated an opposite view to that of Friedman, contending that a firm should be responsive to groups other than the stockowners. Freeman's book on the stakeholder approach of the corporation (Freeman 1984, cited by Donaldson and Preston, 1995) influenced many researchers holding the view that top management should not be accountable only to stockowners, but that it should take into consideration in decision-making as well the interests of other groups (stakeholders) who have an influence on the firm, such as consumers and workers, for the sake of it (the stakeholder normative

approach), or if they want to attain corporation's objectives commonly cited as important such as profitability, growth, or perennity (the stakeholder instrumental approach).

McWilliams and Siegel (2001) define CSR as corporation actions going beyond the requirements of the law in the treatment of stakeholders, and examined theoretically how a firm should set the optimal level of CSR investments. They contend that a firm producing goods with CSR attributes can enjoy a competitive edge vis-à-vis producers who deliver to the market non-CSR goods. This competitive edge may come from consumers paying more for a good that is produced with a technology that respects the environment, for instance, or because employees of the CSR-minded firm are more productive and loyal. However, the production of CSR goods also leads to higher costs, because it implies higher capital costs or wages. McWilliams and Siegel (op. cit. p. 125) conclude that in order to maximize profits, "[…] the firm should offer precisely that level of CSR for which the increased revenue (from increased demand) equals the higher costs (of using resources to provide CSR)." By doing so, the firm can meet the competing interests of a number of stakeholder groups (consumers, employees, communities) and those of the people owning the firm, the shareholders. Nonetheless, in McWilliams and Siegel's view CSR-minded firms could not expect to be more profitable that non-CSR competitors. The latter will face lower prices for their goods, but also lower costs. In the absence of barriers of entry, the level of profitability for both (CSR and non-CSR firms) should be the same.

Lundgren (2011) presents a theoretical model based on the assumption that the firm attains an optimal level of CSR when it balances its marginal costs and balances associated with it. According to the model, benefits for the firm coming out from CSR engagements are threefold: consumers pay a price premium; workers increase their efforts, given a wage level; and firms are confronted to lower capital costs, because financiers assign lower risks to socially performing firms that have a lower probability of conflict with major stakeholders. Nonetheless, CSR-prone firms also confront higher costs: they should make additional investments; they should advertise their CSR efforts; and CSR engagements crowd out other productive investments. Lundgreen cites empirical support for several of his assumptions. He concludes that the link between CSR and the economic performance of the firm, being dependent on a number of parameters is likely to differ between industries, sectors, and indeed, firms. Feddersen and Gilligan (2001) developed a model, showing that activists supplying information on a market for credence goods (i.e. those for which consumers have a difficulty or impossibility to ascertain their impact on utility) can alter the firms and consumers decisions and enhance the social welfare of market exchange.

Meta-analytical studies of the link between CSR and the economic prospects of firms tend to confirm that firms deciding to serve their stakeholders beyond the obligations of the law can benefit in terms of their financial performance, measured by accounting or firm market-value indicators (Orlitzky, 2001; Orlitzky et al. 2003; Meng-Ling, 2006; Margolis, 2009). Margolis et al. (2009) argue to have conducted, the most comprehensive of the integrative analysis of the relationship between CSP and CFP (251 studies presented in 214 manuscripts were integrated by means of meta-analysis). They found

that the overall effect is positive and statistically significant, although "small" (effects are considered to be small, according to Margolis et al. if *r* is around .10, "medium" if *r* is about .5 and "large" if *r* is greater than .5). For the overall sample of studies, the size of the effect of CSP on CFP ($r = .133$), appears to be larger than that coming out from other meta-analytical studies on board composition and share ownership among officers and directors, albeit much smaller than the effect on CFP of the implementation of high performance work practices ($r = .2$).

On the basis of the discussion of the empirical and theoretical literature discussed above we formulate our first hypothesis:

H1. A rating encompassing the ensemble of CSR dimensions is positively linked to the market value of the firm.

Griffin and Mahon (1997) recommended researchers to examine the link between CSP and CFP in the context of individual industries, and not across the board. In their view, "Industries exhibit special uniqueness in that the internal competencies or external pressures inherent in the industry create a "specialization" of social interests." (Griffin and Mahon, 1997, p. 10). Carroll (1979, quoted by Griffin and Mahon) summarized the point with the formula "[…] *the issues change* and they *differ* from different industries" (italics in the original). As a result, in Griffin and Mahon words, "[…] different industries face different configurations of stakeholders, with different degrees of activism on issues" (Griffin and Mahon, loc. cit.). One interesting question concerning the industry-specific impact CSR is related to the "specialization of social interests," to use Griffin and Mahon's expression. In our view, if CSR performance has a particular impact on market value of the firms belonging to a certain industry, it is because some stakeholders and issues more salient in their case. That being said, it is not easy for researchers to observe which those stakeholders groups are in the context of a particular industry. Our article addresses empirically this aspect, i.e. to which extent investors are able to increase their valuation of firms if the management of those firms decides to serve some particular stakeholder.

We rely for our study on the Jantzi Research's Canadian Social Investment Database to gauge the social performance of the firms in our sample, which comprises the constituent firms of the S&P/TSX 60 engaged in economic activities that can be labeled as "mining and other extractive industries." The database utilizes a set of indicators connected with seven topics to evaluate corporate environmental, social and governance performance of firms. These indicators are connected with six headings: community and society, customers, corporate governance, employees, environment and human rights. With the exception of corporate governance (which corresponds to a major stakeholder of the firm, its shareowners), as well as human rights, which an issue that possibly covers several stakeholders, the topics identified by Jantzi Research coincide with the stakeholders identified in the standard academic literature on business and society as more salient to firms (see for instance Berman et al. 1999 for a broad discussion). Following Griffin and Mahon's (op. cit.) advice we set ourselves to examine if a case can be made concerning

the relevance of the abovementioned stakeholders for the public Canadian firms belonging to the S&P/TSX 60 and operating in the natural-resource extractive industries.

Local communities

Anecdotal evidence has been presented of the importance of local communities for mining and other industries connected to extraction of natural resources. Both in domestic and worldwide operations, a good relationship with local communities has been identified as a key aspect of financial success of firms doing mining (Weaver, 2012; Newenham-Kahindi, 2011). Building trust between local communities and companies is a complex and difficult process, particularly in hosting countries with political and social norms that differ from those of the country where the mining corporation comes from (Hamann et al., 2005; Alizar and Scott, 2009; Imbun, 2007). Moreover, the saliency of local communities' interests has been heightened by the action of international advocacy organizations. Ensuing debates have leaded the World Bank Group to issue an operation directive on involuntary resettlement of local communities. Some mining firms have voluntarily adhered to these principles, even if they can be only enforced if the mining firms become clients of one of the agencies of the World Bank Group (Szablowski, 2002).

Thus, we elaborate the following hypothesis:

H2a. Investors' appraisal of firms' value in the extractive industries is positively related to the ratings on quality of the relationship with local communities where they operate.

Employees

A number of scholars have pointed to the possible financial gains that companies can derive from a better relationship with their employees. For instance, Turban and Greener (1996: 659) assert that "Attracting and retaining superior human resources can provide organizations with a sustained competitive advantage." According to the authors, this organization ability exhibits accrued importance, given the shortage of skilled manpower in several critical fields, such as engineering and programming. Jones and Murrell (2001) and Wright et al. (1995) event studies provide empirical support for the notion those firms outperforming others in terms of their management of human resources are rewarded by investors in the capital markets. Jones and Murrell found that firms named to the Working Mother magazine's list of "Most Family-Friendly Companies" experienced significant, positive abnormal returns in the days around the announcement. These abnormal returns were significantly higher for firms being traded in NASDAQ. Wright et al. reported significant, positive abnormal returns associated to the announcements of firms receiving an award from the U.S. Department of Labor, for exemplary affirmative action programs in the workplace.

On the basis of previous literature we formulate the following hypothesis:

H2b. Investors' appraisal of firm market value is positively related to the ratings on ratings on the quality of their relationship with their employees.

Environment

Environment has proved to be an enduring preoccupation in modern societies. Dowell et al. (2000) drawing on previous literature findings, stated that during the 1990s, the annual costs in the U.S. alone of firm compliance with environmental regulation exceeded $125 billion, nearly 2.1% of GDP. The important place assigned to environmental issues, in affluent societies at least, has mirrored in the development of an important body of empirical literature examining the financial consequences of devoting firm resources to go beyond the environmental regulatory requirements. The debate on the merits of environmental performance of firms as a driver of the corporate bottom-line has not been yet settled. Russo and Fouts (1997) pointed to the inconclusive nature of previous literature findings on the issue at hand. They concluded for their part that "it pays to be green" (to use their expression). Furthermore, this relationship strengthened with firm growth. Dowell et al. (2000) found that multinational firms that adopted more a single, stringent environmental standard in their operations were rewarded by investors in the capital markets (on the basis of the Tobin's q) vis-à-vis their counterparts defaulting to less stringent (a presumably poorly enforced) host country standards. Wahba (2008) found support for the hypothesis that public environmentally performing firms were rewarded by investors in the capital markets in Egypt. Wagner (2005) found a predominantly negative relationship between economic and environmental performances, when the latter was measured by an emission index. No significant link was found when environmental performance was measured using an inputs-based index. Laplante and Lanoie (1994) conducted event studies to examine the reaction of investors to announcements of firms concerning environmental incidents linked to Canadian firms. They found that investors reacted negatively to suit settlements resulting in fines and to announcements of investments in anti-pollution equipment.

On the basis of the above discussion we formulate the following hypothesis:

H2c. The market value of firms is positively related to the ratings of the environmental performance of firms.

Human rights

Modern corporations have gone increasingly global to attain their objectives. This the consequence of a world characterized by heightened competition among firms and countries, deregulation, and privatization, among other phenomena. Many firms, including some of the largest public corporations, are now strongly dependent on international markets to sustain their growth and profits. It has been reported that in the early 2000s, 69% of the revenue and 60% of the profits obtained by ExxonMobil came from its operations outside the US, while the figures were 58% and 48% respectively for IBM (Shapiro, 2010). Companies develop operations overseas for a number of reasons: search of raw materials, market seeking, cost minimization, among others (Shapiro, op. cit.). In many cases, corporations' production and investment activities take place in countries with regimes incurring in gross violations of human rights of their populations. Corporations' reputation had suffered as a consequence of their operations in such countries. It was the case of oil company Shell's involvement in Nigeria. In early 1990s, allegations surfaced about the consequences for the Ogoni people of Shell oil production

of Shell in Nigeria. These allegations led to Greenpeace mounting a boycott against Shell in 1993. The hanging by the Nigerian government in 1995 of Ken Saro-Wiwa, a writer and activist opposing Shell activities in the Ogoni Delta further tarnished Shell reputation (Rieff, 1997). Corporations doing business in Myanmar (formerly Burma) have also been confronted to the dilemma of continue profitable operations in the host country, ruled for decades by a military junta, or face potential boycotts in their consumers and capital markets. Reportedly, many firms have opted by pulling out of Myanmar. During the 1990s, companies such as Levi Strauss, Eddie Bauer, Liz Claibourne, PepsiCo, Disney, Carlsberg and Heineken decide to halt their operations. It is worthwhile to note that these pullouts were not driven by governmental regulation. Instead they were based on informal sanctions and corporate reflection (Holliday, 2005). Many companies also divested from South Africa during the 1980s and early 1990s, abiding to pressure from organized consumers and shareholders who sought the dismissal of the Apartheid political regime, which violently suppressed opposition to its discriminatory policies towards the non-white population.

It is not clear to which extent corporate decisions to withdraw countries ruled by governments abusing human rights are based on a business case, or in other extra-financial considerations. Theo et al. (1999) analyzed company withdrawals from South Africa, which they argue is the most important shareholder boycott against companies operating in a country violating human rights. Their event study examined if announcements of investor divestments from firms involved in South Africa were associated to significant abnormal returns of the targeted firms. The authors detected no discernible change in the abnormal returns. Meznar et al. (1994) analyzed investor reaction to announcements of firms' withdrawal from South Africa. Using event studies as well they found significant drop in the market value of the withdrawing firms. Contrary to Teoh et al. and Meznar et al., Posnikoff (1997) detected positive abnormal returns associated to US firms announcing their departure from South Africa. Kumar et al. found that firms that decided to remain in South Africa during the Apartheid exhibited significant positive abnormal returns after President Mandela requested the end of the sanctions in his speech at the United Nations.

On the basis of previous literature we formulate the following hypothesis:
H2d. Market value of firms is positively correlated with the ratings they receive concerning human rights.

Corporate governance

The issue of good governance, i.e. the mechanisms put in place by investors to obtain a return from the funds that they have invested in firms, goes back to Berle and Means (1967). The separation of firm control rights, which are left to appointed managers and stockowners' ownership rights, create the potential for self-serving dealing by managers (Jensen and Meckling, 1976; Shleifer and Vishny, 1997). The question of the agency costs associated with the separation of firm control rights and ownership rights is an important one. In Shleifer and Vishny (op. cit.: 773) words, "the opportunities for managers to abscond with financiers' funds, or to squander them on pet projects, are

plentiful and well-documented." In fact, they argue that even in Italy, a rich European country, an underperforming corporate governance system makes extremely difficult for firms to raise external financing, forcing them to fund their investment projects internally. Evidence gathered from Russia privatization of manufacturing firms, suggests that investors discount the value of the firms' assets using extremely high rates (close to 99%), compared to market valuations of Western firms. Arguably, the discount rates reflect to a large extent the poor quality of the Russian corporate governance system (Shleifer and Vishny, 1997). A number of mechanisms have been implemented to align managerial and shareholder interests. They are a varied array of elements, including among others, appointment of boards, managerial pay for performance, takeovers, use of debt and ownership concentration, as well as use of debt (Shleifer and Vishny, 1997), as well as appointing boards and other mechanisms of internal control (Jensen, 1993). There is evidence that the abovementioned mechanisms can mitigate the agency costs brought about by the separation of management and ownership. However, it has been argued that these corporate governance mechanisms have their own faults. For instance, takeovers have proven to be useful to remove underperforming managerial teams. However, they are also costly and difficult to arrange, something that make them a suitable device to correct only the grossest examples of underperformance (Shleifer and Vishny, 1997). Moreover, the debate continues to this day on the relevance of some corporate governance devices. For instance, Jensen (1993) argued that boards (the most important international mechanism of corporate governance are extremely ineffective, vis-à-vis other mechanisms, such as takeovers. Other researchers differ and present empirical evidence suggesting that boards can increase stockowner wealth (Anderson et al., 2004; Chaganti et al. 1985; Larmou and Vafeas, 2010) under some circumstances.

On the basis of the discussion above, we formulate our last hypothesis:
H2e. Market value of firms is positively related to ratings on the quality of the corporate governance of the firms.

Model, Methodology and Sample

The model used is based on that of Ohlson (1995). This model, which is presented in Equation 1 below, uses two fundamental variables to explain stock price: The book value of a company's shareholders' equity ($BV_{i,t}$) and its earnings ($EAR_{i,t}$). The variables associated to the research hypotheses are then added to Equations 2 and 3. The three equations are presented below:

$$VM_{i,t} = \beta_0 + \beta_1 BV_{i,t} + \beta_2 EAR_{i,t} + \varepsilon_{i,t} \quad (1)$$

$$VM_{i,t} = \beta_0 + \beta_1 BV_{i,t} + \beta_2 EAR_{i,t} + \beta_3 CSRscore_{i,t} + \varepsilon_{i,t} \quad (2)$$

$$VM_{i,t} = \beta_0 + \beta_1 BV_{i,t} + \beta_2 EAR_{i,t} + \beta_3 COM_{i,t} + \beta_4 EMP_{i,t} + \beta_5 ENV_{i,t} + \beta_6 HR_{i,t} + \beta_7 CG_{i,t} + \varepsilon_{i,t} \quad (3)$$

where

$MV_{i,t}$ = market value of firm *i* six months after year-end *t*;
$BV_{i,t}$ = book value of common equity of firm *i* at year-end *t*;
$EAR_{i,t}$ = earnings of firm *i* at year-end *t*;
$CSRscore_{i,t}$ = Jantzi aggregated corporate social responsibility score of firm *i* at the year-end t;
$COM_{i,t}$ = Jantzi community and society score of firm *i* at the year-end *t*;
EMP = Jantzi employee score of firm *i* at the year-end *t*;
$ENV_{i,t}$ = Jantzi environment score of firm *i* at the year-end *t*;
$HR_{i,t}$ = Jantzi human rights score of firm *i* at the year-end *t*;
$GC_{i,t}$ = Jantzi corporate governance score of firm *i* at the year-end *t*;
$\varepsilon_{i,t}$ = error term.

Sample

The sample comprises 23 companies operating in the mining and metals and energy sectors, which were constituents of the S&P/TSX 60 index as of July 1, 2011. This index includes the 60 largest public Canadian companies. The period studied extends over five years (i.e. fiscal years 2004 to 2008). The number of possible observations is thus 115. Six observations were omitted from the regression out of the latter number, because of missing data on the CSR aggregated score. The total number of observations decreases to 95 when one considers five out of the six components of RSE evaluated by Jantzi Research. This decrease is explained by the fact that Jantzi attributed for certain companies an aggregated score without attributing one to each of the five components that we retained in our examination. Jantzi rates companies on their relationship with customers in order to gauge their CSR level. We dropped this Costumer component because it would have had the effect of excluding all gold companies, which are not rated by Jantzi on the Customer component of CSR. This choice was made to maintain the representativeness of the sample, given that the gold-based companies represent a large share of the mining and metals industry in Canada.

The price of companies' common shares was obtained from the Thomson Reuters database. Data on their book value, earnings and number of common shares outstanding were retrieved from the financial statements available in the SEDAR Website. The Corporate Social Responsibility, Community and Society, Employees, Environment, Human Rights and Corporate Governance ratings were obtained from the Jantzi Research's Canadian Social Investment Database, which assigns social responsibility scores on an annual basis to numerous Canadian companies.

Results

a) Descriptive analysis

The descriptive statistics of the variables included in our examination are presented in Table 1. Company size, whether it is measured by market value and book value, shows a large gap between the largest and smallest companies. The average market value is $16.2 billion with a standard deviation of $14.4 billion. The smallest market capitalization was

$0.3 billion whereas the largest was $74.9 billion. The book values range from $190 million to $28 billion. The average book value is $5.7 billion with a standard deviation of $5.5 billion. The average earnings is $1.1 billion, with values ranging from a loss of $983 million to a profit of $7.2 billion.

Table 1

Descriptive data

Variables	Number of observations	Minimum	Maximum	Mean	Standard deviation
MV[1]	109	265	74 900	15 204	14 353
BV[1]	109	190	28 000	5 722	5 490
EAR[1]	109	-983	7 240	1 112	1 421
CSRscore	109	2,9	7,2	5,2	0,8
COM	95	1,8	8,9	4,3	1,8
EMP	95	2,3	7,0	4,9	1,0
ENV	95	3,2	7,2	5,4	0,8
HR	95	1,2	7,6	4,4	1,1
CG	95	4,1	9,1	7,3	0,8

[1] The variables MV, BV, and EAR are stated in millions of Canadian dollars

The aggregated CSR score of firms exhibits a mean of 5.2, ranging from a minimum of 2.9 (Husky Energy, 2008) to a maximum of 7.2 (Suncor, 2006). The standard deviation is 0.8. The Community and Society, Corporate Governance, Employee, Environment and Human Right components of the global index have mean values of 4.3, 4.9, 5.4, 4.4 and 7.3, respectively. The Community and Society component shows the highest standard deviation, with a value of 1.8. The Corporate Governance and Environment components exhibit the lowest variance, with a standard deviation of 0.8.

b) Test of hypotheses

Estimates for the parameters of Equation 1, show that both variables of the baseline model, $BV_{i,t}$ and $EAR_{i,t}$ are significant at 99% and 95% thresholds of confidence, respectively (see Table 2). The fitted equation explains nearly 41% of the variance observed in company market value. It is possible to conclude, given the results of these regressions, that the two baseline variables suggested by Ohlson (1995) adequately explain the market value of the companies in this sample.

Table 2
Regression results

		Equation 1		Equation 2		Equation 3	
Explanatory variables	**Expected sign**	**Coefficient**	***t***	**Coefficient**	***t***	**Coefficient**	***t***
Constant (millions)		6 273	4,05**	-17 630	-2,52**	-10 041	-1,10
BV	+	0,96	3,03**	1,00	3,32**	0,87	3,32**
EAR	+	3,10	2,54**	2,07	1,73*	1,22	1,12
CSRscore (millions)	+			4 774	3,50**		
COM	+					1 515	2,04**
(millions)	+					-236	-0,18
CG	+					4 591	3,76**
(millions)							
EMP							
(millions)							
ENV	+					-603	-0,49
(millions)	+					-1 131	-1,21
HR							
(millions)							
N		109		109		95	
R^2		0,405		0.467		0.634	
Adjusted R^2		0,394		0,452		0,605	
Increase in adjusted R^2				0,058***		0,143***[1]	

[1] The increment in the adjusted-R^2 of the estimation of Equation 3 takes as a benchmark the base model depicted by Equation 1, estimated on the basis of the 95 observations used to estimate Equation 3. The results of this latter regression of Equation 1 are not presented in Table 2. However, they are similar to those of the regression with 109 observations, given that both regressions are significant at 99% and that the book value and earnings variables are significant at 99% and 95%.

Table 2 also shows that adding the variable $CSRscore_{i,t}$ to Equation 2 ─the aggregate metric measuring CSR─, increases the adjusted R^2 by 0.058, reaching 0.452. This increase is significant at a confidence threshold of 99%, suggesting that the model improves with the inclusion of this variable. Considered individually, the global score variable is positive and significant at 99%. This result confirms hypothesis 1, i.e. it upholds the view that CSR performance has a positive effect on the market value of companies. Management of firms looking to enhance shareholder wealth should invest in CSR-enhancing actions, instead of avoiding them. Our result confirms previous theoretical (Lundgren, 2011) and empirical literature based on meta-analysis (Orlitzky, 2001; Orlitzky et al., 2003, Meng-Ling, 2006, Margolis, 2009) suggesting that CSR can be a driver for firms' financial performance.

In Equation 3, the CSRscore variable is replaced by five of its components: Community and Society, Employee, Environment, Human Rights and Corporate Governance, allowing us to test the relevance for investors of corporations' ability to deal with specific stakeholders or issues. The explanatory power of the model, according to the adjusted R^2, grows from 0.143 to 0.605 when compared to the base model with the same sample, i. e. the 95 observations used to estimate Equation 3 (results not presented for the sake of space). It is worthwhile to note that according to the VIF values, the regression is not biased due to colinearity of the independent variables (results also not presented).

Thus, our results show that not all stakeholders and their issues seem to be equally salient for firms. The coefficient associated to the variable Community and Society is positive and significant at a 95% level of confidence. The market value of firms exhibiting a better performance in terms of communities is therefore higher, as it has been hypothesized. Local communities constitute a key partner for firms in the extracting industries. In the times of the internet a dispute with a local community in a mining site, in a distant corner of the world could be easily brought to the attention of a global public, embarrassing host governments and firms alike. Arguably, mining companies exhibiting in the past an ability to develop good relationships with local communities in their projects, enjoy an edge when bidding for exploration and exploitation permits, which are granted by governments. These governments need the cash flow associated with royalties coming from extractive industry firms, but are wary of conflicts with local communities that could escalate and scare the investing community. The Employee variable's coefficient is also positive and significant at 99%. This implies that investors reward companies that care about the well-being of their employees. This result supports findings reported in previous literature (Jones and Murrell, 2001; Wright et al. 1995), suggesting firms can derive a financial edge when they outperform others in managing human resources.

The estimated coefficients associated to the rest of the independent variables connected with CSR, namely the ratings for the environment, human rights and corporate governance are not statistically insignificant. We do not have a ready-made explanation for these results. Issues associated to the environment have shown to be of great importance to firms, which are obliged to devote considerable resources in order to comply with environmental regulations as Dowell et al. (2000) have shown. We speculate that the estimated coefficient for the ratings for the environment can be insignificant, precisely because the environment, due to its heightened political importance for governments is already protected by a profuse ensemble of regulations. Thus, a managerial decision to push a firm to go beyond the requirements of the law concerning the environment may end up being detractive to the firm's stockowners' wealth. Although plausible, this explanation demands further analysis using appropriate methodologies, and it is beyond the scope of this article. The insignificant coefficient estimated for the corporate governance could reflect the complexity of the topic. As in has been pointed out, many of the mechanisms associated with a good corporate governance also imply agency costs of their own. For instance, concentrated ownership could help improving the corporate governance of a firm, because it mitigates the free-riding inclination of smaller stockholders. Nonetheless, large stockholders can also arrive to expropriate wealth from the smaller counterparts, if they arrive to control the firm (Shleifer and Vishny, 1997). It is plausible that corporate

governance mechanisms cancel out in their functioning, rendering ineffectual a single, aggregated measure of them. More puzzling even is the fact that the coefficient associated with human rights is also statistically insignificant. As it has been pointed out previously, firms developing operations in countries ruled by human-rights abusing regimes can end up being targeted by boycotts in their product or capital markets. Extractive-industry firms could be particularly exposed to this type of risk, given that natural resources scarcity can lure them to develop operations in countries with non-democratic governments that abuse their populations. There is evidence that at least boycotts in the product markets can harm the stock price prospects of targeted firms (Davidson et al. 1995). One possible explanation for the lack of significance of the estimated coefficients may lie in the fact that Canadian firms strategically decide to avoid investing in countries with massive, widely publicized human rights violations. Further examining this possibility demands precise information concerning the countries where the companies where active during the years 2004-2008, and developing a typology of the countries in terms of the respect of human rights. Such endeavor was as well out of the scope of the present study. Another possible explanation for the lack of connection between the rating on human rights and market valuation of firms could be that Canadian firms active in the extractive industries produce undifferentiated goods that are not marketed by them to the final consumer. If such is the case, consumers willing to force corporations to pull out from countries with governments violating human rights can only have a limited possibility of success. Davidson et al. (1995) presented evidence that boycotts in the product markets of the firms elicit negative reactions of investors in capital markets, and prompt firms to mend their ways. Nonetheless, such successful boycotts by politically-engaged consumers seem difficult to appear in the context of firms selling commodities to manufacturers rather than the final consumer.

Conclusion

Our article examines if firms exhibiting high levels of social performance are preferred by investors. Following Griffin and Mahon (1997) we analyzed this question using data from firms appertaining to a single industry, namely the extractive industry in Canada. Although the consequences of firm CSR-decisions on the financial prospects of firms have been examined in numerous articles, we believe that most of that literature concentrates in the US context, and that examining the issue in other contexts could further its understanding.

Our data shows that the market valuation of firms in our sample increases with higher levels of the aggregated-CSR ratings elaborated by Jantzi Research. The estimated coefficient obtained using ordinary least squares regression was positive and significant at a 99% level of confidence. We examine as well the effect of five out of six components of the Jantzi's aggregated CSR rating. Separate ratings on firm relationships with communities and employees exhibited positive and significant coefficients with a level of confidence of 95% and 99%, respectively. A better rating on the performance of the firms regarding the environment, human rights and corporate governance, as measured by Jantzi is not related to market valuation of firms. In the case of the environment we suspect that such absence of a statistically significant relationship could be the result of

the importance bestowed to environmental issues, which had led already to the implementation of strong regulations. If our intuition is right, going beyond the obligations of the law could be ineffectual to enhance the market value of firms in this case, or even detractive. Future research could gain to shed light on this aspect. That will demand, however, an appropriate methodology, able to measure the extent of environmental regulation in the extractive industries in Canada and elsewhere. Concerning the absence of a link between human rights and market value, we speculate that it can be due to the potential high costs of litigation and boycotts in the capital and product markets of the firms, the latter preemptively avoid operation in the spots of the world where human-rights abuses are more likely to appear. However, future researchers could revisit the issue, focusing on the type of countries where the Canadian firms in the extractive industries operate, and measuring to which extent there is empirical evidence supporting our intuition. Otherwise, it is possible that Canadian firms active in the extractive industries do not market their products to the final, rendering unviable boycotts and other pressures directed to stop firm involvement in controversial countries. Jantzi Research rates corporate governance. Those ratings are not connected with market valuation of firms. We argue that one possible explanation could lie in the complexity of measuring corporate governance with a single, aggregate indicator.

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