

**Does a Firm's Exposure to Ethical Issues Matter to
Financial Markets?
A Governance Perspective†**

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Abstract:

This paper investigates if a firm's ethical issues, in conjunction with its governance, affect its standing within financial markets. A firm's ethical reputation arises from its involvement in ethical violations and incidents while a comprehensive index proxies for governance. We assess a firm's standing within financial markets through two complementary perspectives, i.e., the level of information asymmetry between managers and investors as inferred from analyst forecast dispersion and analyst forecast error and the relation between a firm's earnings and its stock market valuation (value relevance). Our results suggest that a firm's ethical reputation affects financial analysts' forecasts as well as the stock market value assigned to its reported earnings. Moreover, it appears that corporate governance moderates such relations, with strong (weak) governance compensating for a weak (strong) ethical reputation. Overall, our evidence shows that ethical issues do not seem to pay.

Key words: Corporate governance, ethical issues, information asymmetry, stock markets.

La réputation d'une entreprise en matière d'éthique et les marchés financiers? Une perspective de gouvernance

Résumé :

Cet article examine l'impact des questions d'éthique d'entreprise sur les marchés financiers en tenant compte de la gouvernance. La réputation d'une entreprise en matière d'éthique provient de son implication ou non dans incidents de violation de l'éthique. Nous évaluons l'impact des questions d'éthique sur les marchés financiers à travers deux perspectives complémentaires : 1) le niveau d'asymétrie d'informationnelle entre les dirigeants et les investisseurs (dispersion des prévisions des analystes et erreur de prévisions) et, 2) la relation entre les résultats comptables et la valorisation boursière. Nos résultats laissent à penser que la réputation éthique d'une entreprise affecte la qualité des prévisions des analystes financiers ainsi que la valorisation des résultats comptables par les marchés boursiers. En outre, il semble que la gouvernance atténue ces relations ; une forte (faible) gouvernance compensant une faible (forte) réputation éthique. Dans l'ensemble, nos résultats montrent que la délinquance en matière d'éthique ne semble pas payer.

Mots clés : Asymétrie informationnelle, gouvernance d'entreprise, marchés boursiers, violation de l'éthique,

Introduction

This paper examines if a firm's exposure to ethical issues clouds the assessment of its future prospects by financial markets, thus translating into higher information asymmetry between managers and financial markets' participants. We argue that while such ethical issues do affect a firm's standing in financial markets, it is conditional of its governance, which is expected to play a compensating role. Our measure of information asymmetry encompasses both analyst forecast dispersion and analyst forecast error. In our view, the mapping between a firm's ethical issues and information asymmetry rests on 1) an evolution of investors' expectations with respect to the impact of corporate actions, 2) a realization that effective risk management underlies a firm's long-term performance and survival, with ethics being a critical role in this regard and, 3) the contribution made by various types of risk to information uncertainty.

Hence, publicly-listed entities are increasingly viewed as being accountable beyond financial performance. The advent of socially responsible investment is but one illustration of that trend.¹ Corporate managers and directors are now expected to consider the ethical dimensions of any action or decision they take. In fact, there may be a mapping between managers' and directors' ethics and their firm's ultimate success or failure. For instance, in a speech to the Global Economic Policy Forum held at New York University in 2013, Federal Reserve Bank of New York President William Dudley

¹ Socially responsible investment (or SRI) can be defined as "Responsible investment is an approach to investment that explicitly acknowledges the relevance to the investor of environmental, social and governance factors, and of the long-term health and stability of the market as a whole. It recognises that the generation of long-term sustainable returns is dependent on stable, well-functioning and well governed social, environmental and economic systems" (<http://unpri.org/wp-content/uploads/1.WhatIsResponsibleInvestment.pdf>). United Nations Principles for Responsible Investment.

argued that the stability of the financial system rested on bank executives' respect for the law and ability to assess the broader impact on society of their actions. More specifically, Mr. Dudley stated that "There is evidence of deep-seated cultural and ethical failures at many large financial institutions... Whether this is due to size and complexity, bad incentives or some other issues is difficult to judge, but it is another critical problem that needs to be addressed".² More broadly, the World Business Council for Sustainable Development (WBCSD), a CEO-led organization, echoes Mr. Dudley's views when it states that "The starting point for the WBCSD's work is based on the fundamental belief that a coherent Corporate Social Responsibility (CSR) strategy, based on sound ethics and core values, offers clear business benefits. Sustainable development rests on three fundamental pillars: economic growth, ecological balance, and social progress."³ These views are consistent with an extensive body of empirical research that provides some evidence of a positive association between financial performance and corporate ethics (e.g., Margolis et al., 2007; Orlitzky et al., 2003; Van Beurden and Gossling, 2008; Verschoor, 1999). However, it must be pointed out that the measurement of corporate ethics typically encompasses many aspects of social performance beyond ethical issues.

Moreover, a firm's ethics are increasingly viewed as underpinning its risk profile, irrespective of its sector or industry. In this regard, Carlo V. Di Florio, director of Compliance Inspections and Examinations at the U.S. Securities and Exchange Commission states that, in his views, "Leading standards have recognized the centrality

² Derby, M.S. 2013. Fed's Dudley: 'Deep Seated' Cultural, Ethical Lapses at Many Financial Firms. The Wall Street Journal, November 7. <http://blogs.wsj.com/economics/2013/11/07/feds-dudley-sees-deep-seated-cultural-ethical-lapses-at-many-financial-firms/>

³ World Business Council for Sustainable Development. Definition of Corporate Social Responsibility. <http://www.wbcSD.org/work-program/business-role/previous-work/corporate-social-responsibility.aspx>

of ethics and have explicitly integrated ethics into the elements of effective compliance and enterprise risk management.” Moreover, he considers that “Organizations are making meaningful changes to embrace this trend and implement leading practices to make their regulatory compliance and risk management programs more effective”.⁴ While Mr. Di Florio’s views may be deemed to reflect a regulator’s perspective, they find an echo among risk management specialists. Hence, in an essay on the theme of "Ethics and Risk Management", a director emeritus of the Insurance Institute of America states that risk management and ethics both depend on the other, with good risk management requiring good ethics; and good ethics requiring good risk management. Focusing on the ethical side of the equation, he implies that, for an organization to manage its risks well, everyone who represents that organization must practice good ethics. Conversely, he argues that an organization that permits or encourages unethical actions by anyone who represents can be deemed not to practice good risk management.⁵ Consistent with these views, ethics and integrity are an integral part of the COSO Enterprise Risk Management framework, underlying the assessment of the organizational culture comprises that internal environment.⁶ From an academic perspective, the proposition that ethics and risk management are related has conceptual as well as empirical foundations. For instance, Godfrey (2005) shows that “good deeds earn chits”, i.e., corporate actions that are ethical lead to the creation of moral capital, which provides shareholders with insurance-like protection for a firm's relationship-based intangible assets. He argues that such protection

⁴ Di Florio, Carlo V. October 17, 2011. The Role of Compliance and Ethics in Risk Management. Speech to the NSCP National Meeting.

<http://www.sec.gov/news/speech/2011/spch101711cvd.htm>

⁵ Head, G.L. February 2005. IRMI Online (International Risk Management Institute).

<http://www.irmi.com/expert/articles/2005/head02.aspx>

⁶ Committee of Sponsoring Organizations. 2013. Internal Control - Integrated Framework. www.coso.org.

translates into shareholder wealth. Francis and Armstrong (2003) empirically investigate this premise and argue that good ethical practice is essential for effective risk management, with such a connection having significant commercial outcomes. Power (2004, 2009) adopts a more critical stance with respect to the emergence of risk management and argues that risk management real purpose within organizations has less to do with threats and opportunities, and more to do with the need for organizational accountability and legitimacy. However, even within that revised purpose, the role of ethics is probably as important as well as the ultimate effect on investors' appreciation of a firm's future prospects.

While risk can indeed be managed, it is difficult to eliminate it completely. Moreover, some risks may arise from events, issues or transactions in an unforeseen or unforeseeable manner.⁷ Hence, the greater the uncertainty about underlying risks and the effectiveness of a firm's risk management, the greater the information asymmetry between managers and investors and, ultimately, the lower the firm value. There is actually extensive evidence that risk uncertainty underlies information asymmetry between managers and investors, with detrimental effects on firm value (e.g., Healy and Palepu, 2001; Leuz, 2003; Palmrose, Richardson and Scholz, 2004).

The tight mapping between a firm's ethics and its risk management as well as the potential economic importance of risk in shaping investors' appreciation of a firm value underlie this study, which attempts to answer two related questions. On the one hand, do ethical issues affect a firm's standing within financial markets? On the other hand, is such relation conditional upon a firm's governance? For the purpose of the paper, ethical

⁷ An interesting essay in this regard is Taleb (2010), *The Black Swan*.

issues arise from a firm's involvement in ethical violations and incidents while its governance is inferred from a comprehensive index. We assess a firm's standing within financial markets through two complementary perspectives, i.e., the level of information asymmetry between managers and investors as inferred from analyst forecast dispersion and analyst forecast error and the relation between a firm's earnings and its stock market valuation (value relevance). To attenuate any endogeneity concern between ethical issues and governance, we perform a simultaneous two-stage least square estimation process: in one model, we estimate a firm's propensity to exhibit ethical issues while in a second model, we estimate a firm's information asymmetry or its stock market value, conditional upon its exposure to ethical issues and its governance. Our results show that ethical issues affect financial analysts' forecasts as well as the stock market value assigned to a firm's reported earnings. Moreover, it appears that corporate governance moderates such relations, with strong (weak) governance compensating for a firm's exposure (lack of exposure) to ethical issues.

The paper contributes to knowledge about business ethics, governance and information dynamics in the following manner. First, we show that a firm's exposure to ethical issues is significantly determined by its geographical reach (number of geographical segments), its ownership (existence of control block), its performance (poor performance implies more issues) and its executive compensation practices. This finding should be of interest to directors and regulators if they aim to reduce a firm's exposure to ethical issues. From an academic perspective, the determination of ethical issues adds to our understanding of the drivers underlying business ethics.

Second, consistent with our expectations, we show that exposure to ethical issues translates into higher information asymmetry and lower stock market value, thus implying that ethics (or lack thereof) should be part of the framework underlying information asymmetry between managers and investors, in addition to the traditional economic determinants.

Third, our results extend our understanding of the close relation between a firm's ethics and its governance. On one hand, with respect to a firm's standing within financial markets, solid governance mitigates (compensates) the effect of ethical issues' exposure. On the other hand, it appears that governance, through ownership and compensation, does influence a firm's propensity to face ethical issues,

Background and Hypotheses

Background

Concurrent with the advent of social responsibility investing, there is increasingly an understanding within society that corporate governance extends to how a firm engages and manages its relations with its key stakeholders. More specifically, many investors do expect such relations to be conducted in a way that is guided by more than just regulatory or legal requirements to encompass an ethical dimension. For instance, Preston and Donaldson (1995, p. 19) highlight that while the American Law Institute's *Principles of Corporate Governance* (1992) clearly affirms the central corporate objective of "enhancing corporate profit and shareholder gain," it immediately introduces qualifications: "Even if corporate profit and shareholder gain are not thereby enhanced,"

the corporation must abide by law and may "take into account ethical considerations" and engage in philanthropy (Sec.2.01(a)(b); 1992: 69). According to Preston and Donaldson (1995), the American Law Institute's view explicitly affirms the stakeholder concept that a modern corporation has legitimate concerns about a variety of interdependent stakeholder groups such as employees, customers, suppliers, and members of the communities in which the corporation operates (1992: 72). Such concerns are consistent with social and ethical considerations often being conducive to a firm's long-run value creation.

A similar situation prevails in Canada, especially since the Supreme Court of Canada's BCE ruling in the BCE Inc. v. 1976 Debenture holders case. In its judgment, the Court reaffirmed its previous view that directors' duties extend to a broad set of stakeholders by stating that "...Where conflicting interests arise, it falls to the directors of the corporation to resolve them in accordance with their fiduciary duty to act in the best interests of the corporation. The cases on oppression, taken as a whole, confirm that this duty comprehends a duty to treat individual stakeholders affected by corporate actions equitably and fairly..." "...commensurate with the corporation's duties as a responsible corporate citizen." [81-83]⁸ By pointing out that directors' duties encompass taking into consideration stakeholders' interests beyond shareholders', the ruling squarely brings ethics into the realm of corporate governance. Hence, in assessing the Supreme Court's ruling, Bone (2010) concludes that "Therefore, modern Canadian corporations may be wise to stay ahead of the curve and begin their transformation into a new era of corporate ethics in relation to corporate citizenship."

⁸ Supreme Court of Canada. BCE Inc. v. 1976 debenture holders. 2008 SCC 69. June 20, 2008.

In this context, the ethics of how firms, through decisions by directors and management, deal with stakeholders such as employees, customers or suppliers have potential implications for financial markets, either directly or indirectly. On one hand, there is evidence that building better relations with key stakeholders such as employees, customers, suppliers, and communities enhances shareholder value as it contributes to the development of long-term, intangible, valuable assets which can be sources of competitive advantage (e.g., Amir and Lev, 1996; Hillman and Keim, 2001; Anderson, Fornell and Mazvancheryl, 2004), with ethics partially underlying such relations. On the other hand, having stable relations with key stakeholders reduces the uncertainty surrounding a firm's financial results since the existence of ongoing implicit claims between a firm and its customers, suppliers, employees, and short-term creditors induce management to choose long-run income-increasing accounting methods (e.g., Bowen, Ducharme and Shores, 1995). Improved risk management capabilities are another potential benefit from enhanced relations with stakeholders (Kytte and Ruggie, 2005). However, empirical evidence in this regard is mixed at best (Godfrey, Merrill and Hansen, 2009).

Hypotheses

There is now considerable theoretical and empirical support for the argument that nonfinancial information about a firm (either disclosed by the firm itself or from third party sources), especially with respect to its relations with its key stakeholders, relates to the level of information asymmetry between a firm's managers and investors (Dhaliwal, Radhakrishnan, Tsang and Yang, 2012; Shroff, Sun, White, and Zhang, 2013). Moreover,

there are theoretical arguments (e.g., Healy and Palepu, 2001) and empirical evidence (e.g., Richardson, 2000) suggesting that information asymmetry between a firm's management and other stakeholders contributes to increase uncertainty surrounding a firm's underlying earnings. Such uncertainty severely compromises other stakeholders' ability to correctly assess and predict a firm's future earnings and performance.

In this regard, critical nonfinancial information is the state of a firm's relations with its key stakeholders, i.e., stakeholders with whom it interacts on a regular and business-like way such as employees, customers and suppliers. Such relations underlie a firm's ongoing operations and performance and, ultimately, its value. For instance, Jensen (2001) puts forward the concept of enlightened value maximization, i.e., the need for managers to consider the interests of stakeholders when making decisions while retaining the maximization of long-run firm value as a deciding criterion for making the necessary trade-offs among stakeholders. Jensen's view implies that, for a firm, disregarding or omitting to consider stakeholders' interests raises concerns about its future performance and its long-term value creation.

An indication of how managers consider stakeholders' interests in their decision-making is the prevalence of ethical issues or failures, i.e., instances in which a firm is found to have acted in a way that harms stakeholders' interests. The revelation of such an issue undermines any management claim that it conducts its business in a way that is consistent with long-term value creation and positive for stakeholders. The existence of such ethical issues with a firm's stakeholders clouds investors' appreciation of a firm's economic and financial prospects, especially in an institutional context in which there is

an increasing number of investors who screen investments for social responsible investing (Rhodes, 2010). Hence, we put forward the following hypotheses:

Hypothesis 1a: A firm's involvement in ethical issues translates into higher information asymmetry.

Hypothesis 1b: A firm's involvement in ethical issues translates into lower stock market valuation.

The pivotal role assigned to boards of directors in corporate governance implies that they are likely to play a role in the relation between ethical issues and information asymmetry in financial markets. We expect that for firms, other things being equal, the effect of ethical issues on information asymmetry and firm value is moderated by solid governance. Such a view is consistent with prior evidence that solid (weak) governance is associated with less (more) information asymmetry and is value-enhancing (decreasing) (e.g., under various contexts, Farber, 2005; Kanagaretnam, Lobo and Whalen, 2007; Song, Thomas and Li, 2010). Hence, we put forward the following hypotheses:

Hypothesis 2a: Corporate governance moderates the relation between ethical issues and information asymmetry.

Hypothesis 2b: Corporate governance moderates the relation between ethical issues and stock market valuation.

Method

Sample

The sample comprises Canadian firms in the S&P/TSX index of the Toronto stock exchange for 2011. While 233 firms are in the index, there are missing data for 23 firms. This gives a final sample of 210 observations for the stock market value regressions. We have 28 missing data for forecast dispersion and forecast error (final sample of 182 firms).

Financial data is collected from Compustat and Stock Guide. Governance scores come from Board Games rankings published on annual basis by The Globe & Mail, a leading Canadian newspaper. Ethical issues are measured based on a grid comprising 13 items and the information is collected from the ABI/Inform Global database. Sample firms operate in the following industries: Financial; Real Estate; Materials; Energy; Industrials; Consumer discretionary; Consumer staple; Utilities; Telecommunications; Information technology; and Health care.

Empirical Models

Within our research setting, endogeneity between ethical issues and information asymmetry (proxied by forecast dispersion and forecast error) as well as stock market valuation may critically affect our results. Endogeneity tests (reported in the results section) confirm such interrelations and justify relying on a system of simultaneous equations. The following simultaneous equations summarize the approach adopted in the paper.

Together, equations 1 and 2 represent the empirical model used to assess the relation between ethical issues, corporate governance and information asymmetry (as proxied by either analyst forecast error or dispersion):

$$\begin{aligned}
 &FORDIS / FORERROR = \\
 &BETA + ANFOL + NEGEPS + ETHICAL ISSUES + ETHICAL ISSUES*GOV + GOV \quad (1)
 \end{aligned}$$

$$\begin{aligned}
 ÐICAL ISSUES = \\
 &GEOGSEG + BUSSEG + CONTBLOC + MTB + ROA + LN+ BOARDCOMP + \\
 &COMPENSATION + SHAREHOLDRIGHTS+ GOVDISCL \quad (2)
 \end{aligned}$$

Equations 3 and 4 represent the empirical model used to assess the relation between ethical issues, corporate governance and stock market valuation. The valuation model is inspired by the work of Feltham and Ohlson (1995) and Amir and Lev (1996). Such a model maps a firm's book value and earnings into its stock market valuation.

$$\begin{aligned}
 &PRICE = \\
 &EQPS + EPS + EPS*GOV + EPS*ETHICAL ISSUES + EPS*ETHICAL ISSUES*GOV \\
 &+ ETHICAL ISSUES + ETHICAL ISSUES*GOV + GOV \quad (3)
 \end{aligned}$$

$$\begin{aligned}
 ÐICAL ISSUES = \\
 &GEOGSEG + BUSSEG + CONTBLOC + MTB + ROA + LN+ BOARDCOMP + \\
 &COMPENSATION + SHAREHOLDRIGHTS+ GOVDISCL \quad (4)
 \end{aligned}$$

The definitions of the various variables are as follows: *FORDIS*: Forecast dispersion scaled by lag price; *FORERROR*: Absolute value of forecast error scaled by lag price; *BETA*: Systematic risk; *NEGEPS*: Binary variable for negative earnings; *ANFOL*: Number of analysts following a firm; *PRICE*: Stock price at year-end; *EQPS*: Equity per share; *EPS*: Earnings per share; *ETHICAL ISSUES*: Number different ethical issues; *GOV*: Governance score. *GEOGSEG*: Number of geographic segments (1 out of 7 segments – Canada, USA, South America, Europe, Asia, Africa, Australia and New Zealand); *BUSSEG*: Number of business segments; *CONTBLOC*: percentage of voting shares that are closely held (percentage of votes attached to the shares of a firm held by directors, and individuals or companies that own more than 10% of shares outstanding); *MTB*: Market to book ratio; *ROA*: Return on asset; *Asset*: Total assets; *BOARDCOMP*: Board composition; *COMPENSATION*: Shareholding and compensation; *SHAREHOLDRIGHTS*: Shareholders rights; *GOVDISCL*: Governance disclosure.

Definition of variables –Determinants of asymmetry and stock market valuation

GOV. Prior research suggests that stronger corporate governance should be associated with less information asymmetry and should improve analyst forecast accuracy (Vafeas, 2000; Dey, 2005). A negative (positive) association is expected between *GOV* and information asymmetry (stock market valuation). The governance score comes from Board Games (The Globe and Mail’s annual report on corporate governance)⁹, which includes four components: 1) board composition; 2) shareholding and compensation; 3) shareholder rights; and 4) disclosure. The grid is based on a total of

⁹ The Globe and Mail is Canada’s leading financial newspaper in terms of reach and readership. Its governance survey has been widely used in prior research (e.g., Klein *et al.*, 2005).

100 marks (Board composition; 31 marks; Shareholding and compensation: 26 marks; Shareholder rights: 31 marks; Disclosure: 12 marks).

ETHICAL ISSUES. There is potentially a gap between a firm's governance and the actual social sustainability of its underlying activities, as measured by ethical lapses and issues it faces. We expect that a firm's exposure to ethical issues will increase (decrease) information asymmetry (stock market valuation). We also expect that the impact of ethical issues on information asymmetry (stock market valuation) is moderated by corporate governance. We measure ethical issues based on a grid comprising 13 items (see Appendix 1). Information is collected from the ABI/Inform Global database. Key words used are based on the ethical issues grid. Internal consistency estimates (Cronbach's alpha) show that the variance of components is quite systematic (alpha= 0.74). The selection of the ethical issues is based upon the assessment that they reflect the conduct of business relations with critical stakeholders, i.e., employees, customers, suppliers. These stakeholders, and the state of the relation between them and the firm, are deemed to be instrumental in enhancing firm value (e.g., Jensen, 2001).

BETA. Patton and Verardo (2010) observe that the increase in systematic risk is greater for earnings announcements with larger positive or negative surprises, and with greater analyst forecast dispersion. We expect a positive association between *BETA* and *FORDIS / FORERROR*.

ANFOL. Analyst forecasts precision is likely to improve, as more information about a company is processed and disclosed by analysts (Alford and Berger, 1999). Hope (2003a) documents a negative relationship between analyst following and forecast error. Thus, a negative association is expected between *ANFOL* and *FORDIS / FORERROR*.

NEGEPS. Hope (2003a) documents that negative earnings are associated with more forecast error, suggesting that earnings is more difficult to predict for companies that experience losses. Consistent with Hope (2003a, b), an indicative variable for negative earnings is used. We anticipate a positive relationship between this binary variable and *FORDIS / FORERROR*.

Definition of variables –Determinants of ethical issues

While ethical issues may arise from various sources and in several contexts, the conduct of business transactions in different sectors and across several geographical regions (and cultures) is likely to represent a major concern in this regard. There is substantive documentation that business practices and customs vary considerably across sectors and geographical regions, thus increasing the risk that a firm will experience some mishap (e.g., Crane and Matten, 2010). Hence, we expect complexity of operations, as proxied by the number of business segments (*BUSSEG*) and the number of geographic segments (*GEOGSEG*), to be positively associated with a firm's involvement in ethical issues. From a corporate governance perspective, closely-held ownership, often by a family, potentially leads to agency conflicts and does raise ethical concerns. While the evidence with respect to the mapping between a firm's ownership and its ethics is ambiguous as to its direction, it is less controversial as to the existence of a relation (e.g., Fogel, 2006; Lubatkin, Ling, Schulze, 2007). Hence, we expect that a closely held ownership (*CONTBLOC*) may alter governance and influence ethical issues. Finally, we expect a firm's profitability (*ROA*) to be associated with ethical issues (Fombrun, 1997).

Firm size (*LNASSET*) and market-to-Book ratio (*MTB*) are introduced as control variables.

Results

Descriptive statistics

Table 1 provides descriptive statistics about sample firms' financial variables. We document that information asymmetry is quite low as expressed by forecast dispersion (mean of forecast dispersion, scaled by lag price, of 0.01) and forecast error (mean of forecast error in absolute value, scaled by lag price, of 0.031), a systematic risk (beta) lower than the market beta at 0.76, and a high analyst following (mean of 13.64 analysts). On average, firms operate in two geographic segments and two business segments (1.82).

Table 2 reports on ethical issues and governance scores. The mean number of different ethical issues is 0.18 while total ethical issues exceed 0.50 on average. The mean total score is 65.1. Board composition (19.37) and Shareholder rights (21.46) present the highest mean scores. Considering the maximum scores allowed within each component, we get a mean relative score of 0.67 for Board composition (19.37/29), 0.57 for Compensation (15.93/28), 0.66 for Shareholders rights (20.46/31) and 0.72 for Disclosure (8.60/12).

Multivariate results

Within our research setting, endogeneity between ethical issues and information asymmetry (proxied by forecast dispersion and forecast error) as well as stock market

valuation may critically affect our results. We first assess whether or not an interaction exists between these variables using the Hausman test (residuals of Ethical issues model added to *FORDIS*, *FORERROR* and *PRICE* models). Based on this procedure, we reject the null hypothesis of no endogeneity with respect to *FORDIS* and *Ethical issues* ($t=2.05$; $p < 0.04$), *FORERROR* and *Ethical issues* ($t= 2.13$; $p < 0.04$), as well as *PRICE* and *Ethical issues* ($t= 3.28$; $p < 0.01$). Therefore, these variables are treated endogenously and we rely on a two-stage estimation models. 3SLS (which combines 2SLS and Seemingly Unrelated Least Square - SURE) improves the efficiency of parameter estimates when there is contemporaneous correlation of errors across equations (Binkley 1982). In practice, the contemporaneous correlation across equations is estimated using OLS residuals. We observe an insignificant correlation of errors across equations (-0.01 between *Ethical issues* and *FORDIS*, *Ethical issues* and *FORERROR* (-0.05) and between *Ethical issues* and *PRICE* (0.06). The software used is STATA. We exclude observations with standardized residuals exceeding two from our regressions. Since there is no evidence of a contemporaneous correlation of errors across equations, we rely on a 2SLS estimation procedure rather than a 3SLS.

Determinants of ethical issues

Panel B of Table 3 reports 2SLS regressions on the relation between ethical issues corporate governance, and information asymmetry. As expected, good governance, as proxied by shareholding and compensation for executives (*COMPENSATION*)¹⁰, is

¹⁰ For shareholding and compensation, marks are allowed if the CEO is required to own shares, if rules prohibit executives to use derivatives to retain legal ownership, if the firm provides details of compensation policies, etc.

associated with less ethical issues. Consistent with our expectation, a firm's profitability (*ROA*) is negatively associated with ethical issues: hence, as stated early by Fombrun (1997), profitability is not incompatible with a firm's ethical stand, on the contrary. Finally, the extent of a firm's international activities (number of geographical segments: *GEOGSEG*) and a concentrated ownership (*CONTBLOC*) are positively associated with ethical issues. This is consistent with prior work showing that the broader the activity and geographical scope of a firm, the more it becomes exposed to ethical risks.

Ethical issues and information asymmetry

Panel A of Table 3 presents 2SLS regressions on the incidence of ethical issues on information asymmetry and how corporate governance moderates this relation. Based on prior literature that documents their potential role in determining forecast dispersion and forecast errors, *BETA*, *ANFOL* and *NEGEPS* are used as control variables in the regressions. Consistent with hypothesis 1a, a firm's involvement in ethical issues (*ETHICAL ISSUES*) is positively associated with *FORDIS* (0.091; $p < 0.05$). Consistent with hypothesis 2a, the association is moderated for firms with good governance since the coefficient on the interaction term *ETHICAL ISSUES*GOV* is negative (-0.001; $p < 0.05$). Moreover, the sum of coefficients *ETHICAL ISSUES* and *ETHICAL ISSUES*GOV* is statically close to zero (joint test F: 1.49; $p < 0.223$), which is consistent with Hypothesis 2a. In other words, strong corporate governance cancels out the negative impact of ethical issues on information asymmetry. Similar results are obtained for *FORERROR*.

Ethical issues and stock market valuation

Panel B of Table 4 reports results from the 2SLS estimation of the determinants of *ETHICAL ISSUES*. These results are more or less similar to those reported in Panel B of Table 3, with the addition of a positive relation between *CONTBLOC* and *ETHICAL ISSUES*, a finding that is consistent with some of the governance literature (e.g., Fogel, 2006). Panel A of Table 4 reports on the value relevance of earnings, considering ethical issues and corporate governance. First, results show that corporate governance enhances the value relevance of earnings since the coefficient on *EPS*GOV* is positive and significant (0.021; $p < 0.05$). Second, also as expected, *ETHICAL ISSUES* reduces the value relevance of earnings (coefficient on the interaction terms *EPS*ETHICAL ISSUES* = -43.651; $p < 0.05$). This is consistent with hypothesis 1b. Third, consistent with hypothesis 2b, corporate governance moderates the impact of ethical issues on a firm's stock market valuation since the coefficient on the interaction term *EPS*ETHICAL ISSUES*GOV* is positive and significant (0.401; $p < 0.05$). Overall, taking the variables' mean values (see Table 1) and multiplying each of them by the appropriate estimated coefficient provides a value of -8.854 ($EPS*GOV + EPS*ETHICAL ISSUES$ is -8.854 ($0.021 \times 1.484 \times 65.10 = 2.029 - 43.651 \times 1.484 \times 0.168 = -8.854$). Thus, on its own, the negative impact of ethical issues on stock price is larger than the positive impact of governance. However, the joint effect of ethical issues and governance on stock price is less negative. If we add the coefficient for the interaction term *EPS*ETHICAL ISSUES*GOV*, we get $-8.854 + 0.401 \times 1.484 \times 0.168 \times 65.1 = -2.346$, thus a combined negative impact on the valuation of earnings. However, overall, earnings are positively still valued considering ethical issues and corporate governance ($EPS = 2.942 \times 1.484 =$

4.365 - 2.346 = 2.019). Moreover, the joint test regarding the sum of the coefficients $EPS + EPS*GOV + EPS*ETHICAL\ ISSUES + EPS*ETHICAL\ ISSUES*GOV$ is different from zero ($F= 3.28$; $p < 0.071$) suggesting that corporate governance does not compensate for ethical issues in the valuation of earnings. Thus, governance partially substitutes for ethical issues in the valuation of earnings by stock markets.¹¹ This is consistent with Hypothesis 2b. Our results suggest that a substitution effect between governance and ethical issues in their relation with stock market valuation.

Discussion and Conclusion

The main purpose of the paper is to assess the mapping between a firm's exposure to ethical issues and its governance in affecting the level of information asymmetry between stakeholders and managers and stock market valuation. The underlying arguments are to the effect that 1) exposure to ethical issues creates uncertainty regarding the firm's future prospects and, consequently, compromises financial analysts' ability to forecast future earnings and, 2) such information asymmetry in financial markets translates into a situation in which exposure to ethical issues affects a firm's stock market valuation downward. Our analyses are performed using a sample of relatively large Canadian firms that are followed by financial analysts. Our results are consistent with expectations and suggest that while ethical issues translate into higher information asymmetry and lower stock market valuation, it appears that corporate governance moderates (attenuates) such relations, thus playing a substitution role. In other words, in terms of information asymmetry or earnings stock market valuation, strong corporate governance compensates

¹¹ Taking the third quintile of governance score (score of 80), there is a quasi-perfect substitution between governance and ethical issues.

for the existence of ethical issues in a firm`s relations with its key stakeholders. However, the lack of ethical issues will not nullify the information asymmetry and earnings valuation impact of weak corporate governance.

The finding that corporate governance and ethical issues are not complementary, i.e., do not reinforce each other, suggests that relations with key stakeholders are not necessarily a primary concern for boards of directors. For instance, looking at the mapping between a firm`s environmental governance and its environmental performance, Rodrigue, Magnan and Cho (2013) do observe that the relation is rather weak, with directors focusing mostly on compliance and on avoiding specific risks. With respect to ethical issues, one can infer from our results that boards take action once such issues are revealed (hence the compensating effect) rather than being active on a consistent basis (which would imply a complementary effect). Hence, our results provide further evidence in support of the view put forward by Rodrigue, Magnan and Cho (2013) that boards of directors are not necessarily pro-active when it comes to their firm`s social responsibility, which encompass both environmental and ethical issues.

To gain further insights regarding the process by which corporate governance mechanisms ultimately relate to ethical issues and directors` involvement in furthering a firm`s interactions with its stakeholders, a promising avenue would be to engage into a qualitative data collection effort through interviews with corporate governance actors (e.g., directors, institutional investors, managers). However, getting access to these actors could be a challenge as the topic being discussed is relatively sensitive in most organizations.

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Table 1
Descriptive Statistics
Financial Variables

Variable	Mean	Std Dev.	Min.	Max.
<i>FORDIS</i>	0.010	0.013	0.001	0.156
<i>FORERROR</i>	0.031	0.045	0.000	0.346
<i>PRICE</i>	25.763	32.630	0.185	437.01
<i>BETA</i>	0.716	2.551	-15.027	8.385
<i>NEGEPS</i>	0.180	0.385	0	1
<i>ANFOL</i>	13.639	7.075	0	45
<i>EQPS</i>	15.064	25.466	0.358	358.9
<i>EPS</i>	1.484	2.021	-6.24	8.69
<i>GEOGSEG</i>	2.022	1.474	1	7
<i>BUSSEG</i>	1.825	1.253	1	7
<i>CONTBLOC (%)</i>	17.289	19.975	0.01	84.09
<i>MTB</i>	2.265	2.531	0.010	20.794
<i>ROA</i>	0.044	0.088	-0.561	0.291
<i>ASSET (in billion \$)</i>	26.883	96.205	0.145	751.702

FORDIS: Forecast dispersion scaled by lag price; *FORERROR*: Absolute value of forecast error scaled by lag price; *PRICE*: Stock price at year-end; *BETA*: Systematic risk; *ANFOL*: Number of analysts following a firm; *EQPS*: Equity per share; *EPS*: Earnings per share; *ETHICAL ISSUES*: Number different ethical issues; *GOV*: Governance score; *GEOGSEG*: Number of geographic segments (1 out of 7 segments – Canada, USA, South America, Europe, Asia, Africa, Australia and New Zealand); *BUSSEG*: Number of business segments; *CONTBLOC*: percentage of voting shares that are closely held (percentage of votes attached to the shares of a firm held by directors, and individuals or companies that own more than 10% of shares outstanding; *MTB*: Market to book ratio; *ROA*: Return on asset; *ASSET*: Total assets.

Table 2
Descriptive Statistics
Ethical Issues and Corporate Governance

N : 210	Mean	Std Dev.	Min.	Max.
Ethical issues				
Number of different ethical issues*	0.168	0.461	0	4
Total ethical issues	0.507	1.478	0	15
Corporate governance				
Board composition	19.365	4.920	5	29
Compensation	15.929	6.107	2	28
Shareholder rights	21.462	6.137	6	31
Disclosure	8.603	5.732	1	12
Total	65.101	16.539	29	96

*Based on the presence or absence of the element (maximum one point for an element)

Table 3
Two-Stage-Least-Square Estimation of the Relationship between Information Asymmetry and Ethical Issues in Interaction with Corporate Governance

Panel A	Predictio n	FORDIS	FORERROR
<i>BETA</i>	+	*0.001	-0.002
<i>NEGEPS</i>	+	-0.001	-0.001
<i>ANFOL</i>	-	*-0.001	*-0.001
<i>ETHICAL ISSUES</i>	+	**0.091	***0.143
<i>ETHICAL ISSUES*GOV</i>	+/-	** -0.001	** -0.002
<i>GOV</i>	-	0.001	0.001
R-Square		13.2%	23.4%
F-Statistic		4.45 (0.00)	15.7 (0.00)
F tests of coefficient difference			
<i>ETHICAL ISSUES + ETHICAL ISSUES*GOV = 0</i>		1.49(0.223)	1.83(0.177)
Panel B		Ethical Issues	Ethical Issues
<i>GEOGSEG</i>	+	**0.024	**0.031
<i>BUSSEG</i>	+	0.005	0.010
<i>CONTBLOC</i>	+	**0.002	**0.002
<i>MTB</i>	+	0.014	0.010
<i>ROA</i>	-	** -0.645	** -0.552
<i>LNASSET</i>	+	0.006	0.012
<i>BOARDCOMP</i>	-	0.003	0.005
<i>COMPENSATION</i>	-	** -0.009	*-0.008
<i>SHAREHOLDRIGHTS</i>	-	0.007	0.007
<i>GOVDISCL</i>	-	0.001	0.001
R-Square		10.1%	8.7%
F-Statistic		1.96 (0.02)	1.70 (0.05)
N		182	182

*: $p < 0.10$; **: $p < 0.05$; ***: $p < 0.01$. One-tailed if directional prediction, two-tailed otherwise.

ETHICAL ISSUES: Number of different ethical issues; *FORDIS*: Forecast dispersion; *FORERROR*: Forecast error; *BETA*: Systematic risk; *NEGEPS*: Binary variable for negative earnings; *ANFOL*: Number of analysts following a firm; *ETHICAL ISSUES*: Number different ethical issues; *GOV*: Governance score. *GEOGSEG*: Number of geographic segments (1 out of 7 segments – Canada, USA, South America, Europe, Asia, Africa, Australia and New Zealand); *BUSSEG*: Number of business segments; *CONTBLOC*: percentage of voting shares that are closely held (percentage of votes attached to the shares of a firm held by directors, and individuals or companies that own more than 10% of shares outstanding; *MTB*: Market to book ratio; *ROA*: Return on asset; *BOARDCOMP*: Board composition; *COMPENSATION*: Shareholding and compensation; *SHAREHOLDRIGHTS*: Shareholders rights; *GOVDISCL*: Governance disclosure.

Table 4
Two-Stage-Least-Square Estimation of the Relationship between Share Price and Ethical Issues in Interaction with Corporate Governance

Panel A (N: 210)	Prediction	PRICE
<i>EQPS</i>	+	***0.933
<i>EPS</i>	+	***2.942
<i>EPS*GOV</i>	+	**0.021
<i>EPS*ETHICAL ISSUES</i>	-	**-43.651
<i>EPS*ETHICAL ISSUES*GOV</i>	+/-	**0.401
<i>ETHICAL ISSUES</i>	-	5.899
<i>ETHICAL ISSUES*GOV</i>	+/-	0.172
<i>GOV</i>	+	0.009
R-Square		56.3%
F-Statistic		39.2 (0.00)
F test of coefficient difference		
<i>EPS + EPS*GOV + EPS*ETHICAL ISSUES + EPS*ETHICAL ISSUES*GOV = 0</i>		3.28(0.071)
Panel B	Ethical Issues	
<i>GEOGSEG</i>	+	***0.039
<i>BUSSEG</i>	+	0.008
<i>CONTBLOC</i>	+	***0.003
<i>MTB</i>	+	0.008
<i>ROA</i>	-	*-0.365
<i>LNASSET</i>	+	**0.027
<i>BOARDCOMP</i>	-	0.007
<i>COMPENSATION</i>	-	**-0.011
<i>SHAREHOLDRIGHTS</i>	-	0.005
<i>GOVDISCL</i>	-	-0.001
R-square		11.0%
F-Statistic		2.20(0.01)

*: $p < 0.10$; **: $p < 0.05$; ***: $p < 0.01$. One-tailed if directional prediction, two-tailed otherwise.

ETHICAL ISSUES: Number of different ethical issues; *PRICE*: Stock price at year-end; *EQPS*: Equity per share; *EPS*: Earnings per share; *GOV*: Governance score; *GEOGSEG*: Number of geographic segments (1 out of 7 segments – Canada, USA, South America, Europe, Asia, Africa, Australia and New Zealand); *BUSSEG*: Number of business segments; *CONTBLOC*: percentage of voting shares that are closely held (percentage of votes attached to the shares of a firm held by directors, and individuals or companies that own more than 10% of shares outstanding); *MTB*: Market to book ratio; *ROA*: Return on asset; *LNASSET*: Total assets; *BOARDCOMP*: Board composition; *COMPENSATION*: Shareholding and compensation; *SHAREHOLDRIGHTS*: Shareholders rights; *GOVDISCL*: Governance disclosure.

Appendix 1
Ethical grid

	Number of different ethical issues	Total ethical issues
Violation of labour code	0.020	0.101
Discrimination based on race and gender	0	0
Non-compliance with trade laws on pricing	0.034	0.048
Exploitation of child labor	0	0
Unfair competition, fines for non-compliance	0.010	0.010
Products: management of health and human security	0.084	0.224
False advertising	0	0
Industrial spying	0	0
Influence peddling	0	0
Fraud	0.029	0.029
Corruption	0	0
Illegal financing of political parties	0	0
Bribes	0.005	0.005
Total	0.182	0.507