

CORPORATE GOVERNANCE AND ISSUES FROM THE INSURANCE INDUSTRY

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ABSTRACT

In this article, we review the literature and empirical research on the nature and consequences of corporate governance. We particularly assess the impact of corporate governance on firm performance and risk taking. While the article analyzes the general literature on corporate governance in publicly listed firms, we also discuss issues pertaining to the insurance industry. The article identifies avenues for future research.

INTRODUCTION

The last two decades have witnessed a continuing trend of deregulation and integration of capital markets, accompanied by major events in the financial world. The 1997 East-Asian crisis, followed by recent corporate scandals in the United States and around the world, culminated with a worldwide financial crisis like no other in its global reach. All these events have one underlying common feature, failing corporate governance. Indeed, the 1997 Asian crisis was largely blamed by commentators on the expropriation of resources by family concentrated ownership and the prevalence of pyramids and conglomerates. The recent financial scandals resulting from accounting frauds and earnings management in such large players as Enron, WorldCom, and Adelphia were primarily blamed on the behavior of top executives and their excessive risk taking that does not serve the best interest of shareholders (and other stakeholders in the firm). In the same vein, the recent financial turmoil around the world brought to light the extent of resources expropriation by highly paid executives, and their risk-taking behavior. Unsurprisingly then, all these events attracted the attention of investors, practitioners, and regulators alike to the practices of corporate governance and their effectiveness in curbing such behavior.

The insurance industry was not immune to the most recent crisis, and the recent bailout of the "giant" American Insurance Group (AIG) by the U.S. government, was

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equally blamed on excessive risk taking.¹The fact that by the end of 2007, the life insurance industry held \$482 billion of mortgage-backed securities (which accounted for close to 22 percent of their collective bond portfolio and 16 percent of total invested assets) has similarly raised questions about risk-taking behavior and triggered the interest in corporate governance practices in the insurance industry, by investors as well as policymakers (Baranoff and Sager, 2009). More precisely, following the crisis, questions pertaining to executive compensation packages, board of directors duties, the importance of risk management within the firm, and the impact of regulation (among others) have surfaced, leading to a large debate on the type of effective monitoring mechanisms that could curtail managers excessive risk-taking behavior. The magnitude of the crisis added importance to the emergency of identifying and implementing such mechanisms.

In this article, we review the literature and empirical research on the nature and consequences of corporate governance, particularly focusing on how corporate governance affects corporate performance. We also describe a wide array of governance mechanisms, as documented in the literature, and assess their effectiveness with respect to performance and risk taking. While the article analyzes the general literature on corporate governance in publicly listed firms, we also discuss issues pertaining to the insurance industry.

The rest of the discussion is organized as follows: we first define corporate governance, before we present the different internal and external governance mechanisms (or institutions) identified in the literature. We next discuss the studies that focused on corporate governance and its importance to corporate performance and risk taking in the particular setting of the insurance industry. We finally describe the proposed and ongoing reforms in corporate governance before we conclude our discussion with some avenues for future research.

WHAT IS CORPORATE GOVERNANCE?

In general, we define corporate governance as the set of mechanisms that are put in place to oversee the way firms are managed and long-term shareholder value is enhanced. Discussions on corporate governance date back to Berle and Means (1932). Due to the increasing interest in the subject, several scholars have tried to provide an exhaustive definition of corporate governance. For example, Shleifer and Vishny (1997, p. 737) state that corporate governance "deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment." A similar definition is proposed by John and Senbet (1998, p. 372), who consider all stakeholders in the firm, and argue that "corporate governance deals with mechanisms by which stakeholders of a corporation exercise control over corporate insiders and management such that their interests are protected." A contemporaneous definition is proposed by Zingales (1998, p. 4), who states that corporate governance is "the complex set of constraints that shape the ex-post bargaining over the quasi-rents generated by a firm."

¹Please refer to Harrington (2009) for a study on the role of AIG and insurance sectors in the financial crisis, and overall implications for insurance regulation. Also refer to Dionne (2009) for a discussion of the main causes of the crisis as well as the implications in terms of risk management.

In a nutshell, these authors view the firm as a nexus of contracts (both implicit and explicit). When contracts are incomplete because of, among other things, uncertainty, informational asymmetries, and "contracting costs" (Grossman and Hart, 1986; Hart and Moore, 1990; Hart, 1995), conflicts of interest between insiders and outsiders resulting from the separation between ownership and control arise, and corporate governance becomes necessary (as first suggested by Jensen and Meckling, 1976). We discuss more extensively in what follows the root of agency conflicts.

The Root Problem

In Jensen and Meckling's (1976) model, the principal (the external owner of the firm) engages in a contract of an agency relationship with an agent (the manager). The authors show that the utility-maximizing agent has an incentive to expropriate resources from the firm, especially if it is widely held. This expropriation of resources takes the form of perquisites and less effort (shirking), which both lead to a destruction of value to shareholders. To limit this self-serving behavior of the agent, the principal needs to put in place costly monitoring mechanisms such as nominating independent directors on the board or calling upon rating agencies, auditing agencies, and financial analysts' following. In addition, as Jensen and Meckling (1976) propose, the principal may be led to incur some bonding costs in order to commit the agent to a value-maximizing behavior. Such costs may include designing a new compensation package, or granting a larger equity participation in the firm to the agent. In equilibrium, however, the marginal benefits in terms of value creation should compensate for these costs.

The literature identifies several problems resulting from the agency relationship between the principal and the agent, in addition to the perquisites and the shirking problems discussed in Jensen and Meckling (1976): while firms have an infinite life leading shareholders to anticipate perpetual cash flows, managers' expected cash flows are limited to their salaries while they manage the firm. They thus have a shorter horizon than shareholders that is likely to enhance their preference for short-term projects or projects with a higher short-term return (negative net present value). Agents also exhibit different risk preferences that worsen the principal-agent conflict. While managers have undiversified portfolios (a large portion of their wealth being tied to the company), shareholders are able to diversify their portfolios and thus eliminate all unsystematic risk specific to the company. Finally, widely dispersed ownership contributes to the conflicts between the agent and the principal because of "the free-riding problem of minority shareholders" that, short of incentives to monitor managerial actions, will provide the agent with discretion over the decisions of the firm.

These theoretical arguments have fostered a large empirical literature on the magnitude and outcome of the principal-agent conflicts (also called the equity agency costs). In what follows, we review the monitoring devices or corporate governance mechanisms that seek to achieve this objective. They basically fall into two main categories: those internal and those external to the firm.

Internal Mechanisms of Corporate Governance

The literature identifies several internal governance mechanisms that permit the firm to control agency problems. One of the most widely studied such mechanisms is the

board of directors (BODs hereafter). Previous studies characterize the effectiveness of the BODs through different dimensions; for example, smaller boards have been shown to be more effective than large ones as these latter are harder to coordinate. Indeed, the literature shows that large BODs do not seem to be associated with a higher firm value (Cheng, 2008). Sah and Stiglitz (1986, 1991) argue that a large board is more likely to reject risky projects because convincing a large number of directors that a project is worthwhile is more difficult. In other words, coordination and agreement are harder to reach in larger boards.

Another measure of the quality of corporate governance at the board level that has attracted much attention lately is the independence of the board and the weight of *outside directors* herein. Firm value is found to increase with the number of outside directors, suggesting that they play a positive role in the monitoring and control function of the board. Coles, Daniel, and Naveen (2006) report that the percentage of insiders on the board is positively related to firm risk and argue this is the case because insiders have incentives to increase volatility and to adopt financing and investment policies that heighten firm risk. Brick and Chidambaran (2008) find that board independence (i.e., higher percentage of outsiders) is negatively related to firm risk when measured by the volatility of stock returns. In general, however, the results in the empirical literature remain mixed as to whether outside directors are systematically correlated with firm performance and value (Dahya, McConnell, and Tavlos, 2002).

The duality of the chief executive officer (CEO) as the chair of BODs has also been extensively studied. The argument is that having the CEO also assume the BOD's leadership is likely to result in conflicts of interest and to increase the incentives of the manager to expropriate firms' resources at the expense of shareholders. The board thus becomes ineffective at protecting shareholders' interests as suggested by Jensen (1993, p. 866), who notes, "Without the direction of an independent leader, it is much more difficult for the board to perform its critical function." The literature provides mixed evidence on this issue, although it is more generally found that independence of the BODs² contributes to a closer monitoring of managerial behavior (e.g., Baliga, Moyer, and Rao, 1996; Brickley, Coles, and Jarrell, 1997; Dalton and Dalton, 2011).

Another internal corporate governance mechanism is *managerial compensation*: extensive empirical evidence identifies a strong relation between firm performance and executives' performance-based compensation, suggesting that compensation can align the interests of managers and shareholders (Mayers and Smith, 2010). However, because of managerial risk aversion, this relation is theoretically nonoptimal (Farinha, 2003a). In addition, the literature shows that managers tend to time stock-option grants to their advantage, suggesting that this device may not be completely effective.

Insider ownership has also been considered as a potential effective corporate governance mechanism. Managerial ownership has been advanced by Jensen and Meckling (1976) as a potential incentive to align the interests of managers and shareholders. Morck, Shleifer, and Vishny (1988) and McConnell and Servaes (1990), among others,

²Independence here is understood as the CEO not chairing the BOD.

show that below a certain level, managerial ownership creates the necessary incentives for managers to increase firm value (incentive effect). However, beyond a certain threshold, managers become entrenched (entrenchment effect) and end up rejecting value-enhancing projects that do not benefit them, which in turn adversely affects performance. Many studies provide support for the managerial ownership incentive effect, and an equally important number find no association of managerial ownership with performance. As suggested by Cho (1998) and Himmelberg, Hubbard, and Palia (1999), this mixed evidence may be due to the failure to control for the endogeneity of managerial ownership or for the simultaneous effect of other monitoring devices in the firm that can either substitute or complement each other.

In widely held corporations, small shareholders may lack the motivation to monitor management. To avoid this free-riding problem, *large shareholders and blockholders* have been considered as an alternative effective governance mechanism given the large stakes they usually hold in the firm. The empirical evidence is generally supportive of this conjecture and shows that large shareholders are associated with better performance and higher firm value. They are also positively associated to managerial turnover, which is consistent with an effective monitoring role. Some mixed results, however, are documented outside the United States, particularly in countries where concentrated ownership dominates, as large shareholders are found to be entrenched once their stake goes beyond a certain threshold (Claessens et al., 2002).

Lastly, *debt and dividend policies* have been shown to have a monitoring effect as they subtract the free cash flows generated by the firm from the discretion of managers, thus reducing the equity agency costs (Farinha, 2003b). Indeed, by imposing a fixed stream of debt repayments on the firm, debt plays a disciplinary role that ensures management pursues shareholders' value maximization. The literature also shows that the terms of the debt contract and protective covenants protect bondholders from expropriation and financial distress (Agrawal and Knoeber, 1996). Based on the same principle, by returning the available "free cash-flow" to shareholders as extraordinary dividends, dividend policy plays a disciplinary role leading managers to enhance firm performance and maximize shareholders' wealth (Crutchley and Hansen, 1989).

A general conclusion that emerges from the above discussion is that the literature fails to identify a universally adopted device that is effective in monitoring managers' discretion. Each mechanism may provide benefits but at a cost. This may explain why corporate governance characterizes firms differently across industries. In addition, several of these mechanisms may substitute to each other or complement each other making it more difficult to come up with a general recommendation. Finally, firms also benefit from additional potential monitoring devices that are external to the firm, as discussed in the next section.

External Mechanisms of Corporate Governance

The literature identifies several external mechanisms that can encourage managers to align their interests with shareholders and commit to a value-maximizing behavior. They include the threat of takeover (Jensen and Meckling, 1976; Fama and Jensen, 1983a, 1983b), competition in product and factor markets, and the market for CEOs

(Jensen and Meckling, 1976; Hart, 1995). We describe these and other mechanisms in what follows.

The *takeover market* has been considered in the literature to act as a performing disciplining device, particularly in the United States. Indeed, in few other countries, with the exception of the United Kingdom, does one find a highly efficient takeover market. The nature of corporate ownership that tends to be concentrated rather than diffuse (as in the United States and the United Kingdom) hinders the use of takeovers. In addition, capital markets' lack of liquidity and regulation may limit the use of takeovers as a disciplining tool. Nevertheless, the existing studies on U.S. and U.K. markets show that an active hostile takeover market is indeed efficient as a watchdog device (Denis and McConnell, 2005).

Some authors have underscored the monitoring role of *financial analysts* and the stock market more generally: financial analysts, who follow the firm require it to provide transparent information as they act as information intermediaries between the firm and market participants (Rajan and Servaes, 1997). The higher the number of analysts that follow the firm, the lower is the error dispersion in their earnings' forecasts, and the higher is the pressure on management, which ultimately leads to higher value and lower cost of capital (Piotroski and Roulstone, 2004).

Recent studies point to the importance of the *legal environment and investor protection* in ensuring that shareholders' rights are enforced. For instance, the literature provides evidence that the extent of minority shareholders' rights and legal enforcement of rules contribute to reduce corporate earnings management by insiders. Firm value, as well as firm liquidity (i.e., bid-ask spread), is also found to be positively associated with the level of protection of minority shareholders (La Porta et al., 2000, 2002).

Finally, the literature has provided few indications on the efficiency of *product market competition* or of *the market for CEOs*, mainly because these mechanisms are most likely to work under special circumstances, such as financial distress (e.g., Hotchkiss, 1995). Nevertheless, the existing literature suggests there is a negative relation between CEO turnover and firm performance. In other words, top executives are likely to be fired and replaced following a bad performance by the firm. Jensen and Warner (1988, p. 19) state that top CEO turnover represents a "key variable in understanding the forces disciplining managers." Similarly, Huson, Parrino, and Starks (2001, p. 2266) advance that CEO turnovers have "long term implications for a firm's investment, operating, and financing decisions." While most previous studies on the subject adopt an event study approach around the date of the announcement of turnover, they do not reach a consensus as some document a positive market reaction (Bonnier and Bruner, 1989) while others, such as Khanna and Poulsen (1995), find significant and negative returns around these announcement dates.³ For yet another set of studies, there is an insignificant market reaction at the time of the CEO turnover announcement (e.g., Reinganum, 1985; Warner, Watts, and Wruck, 1988).

New insights from recent international corporate governance studies suggest that the relative inefficiency of external governance mechanisms in several countries,

³Other contributions include Denis and Denis (1995), Hotchkiss (1995), and Huson, Malatesta, and Parrino (2004).

specifically the legal environment, leads local firms to compensate with ownership concentration, suggesting that ownership concentration and the legal system act as substitutes (Shleifer and Vishny, 1997; Denis and McConnell, 2005). The interaction of all these mechanisms, both external and internal to the firm, makes the task of disentangling their incentive effects more difficult.

The first generation of studies on corporate governance have all assessed the impact of a given corporate governance mechanism on firm value and performance, while the second generation is characterized by the emergence of *indices* of corporate governance. Governance scores are provided by Standard & Poor's or Governance Metrics. One first study using Governance Metrics indices is conducted by Gompers, Ishii, and Metrick (2003), who document a significant link between a corporate governance index (which includes 24 governance provisions) and firm stock returns (and Tobin's Q), used as firm value indicators.

The literature acknowledges, since the seminal papers of Demsetz and Lehn (1985), that one needs to control for the possibility of reverse causation between corporate governance (such as ownership structure), and performance since this latter may in fact drive a commitment to better governance. Several authors have controlled for this issue (Palia, 2001), and found it indeed to affect the results of previous studies.

Drawing from this discussion of the corporate governance literature, we examine in the next section the type of governance specific to the insurance sector. Specifically, we describe existing studies on the link between corporate governance on one hand and risk taking and performance on the other, in the particular context of insurance firms.

CORPORATE GOVERNANCE STUDIES IN THE INSURANCE INDUSTRY

Like most public firms discussed above, insurance companies involve a variety of stakeholders that exhibit differing incentives and objectives. For example, while all stakeholders in insurance companies agree that their main objective is insurer solvency, they still may, on an individual basis, exhibit a varying desired level of risk taking (Cole et al., 2011). Regulators and nonregulatory groups (e.g., agents, reinsurers, and BODs) generally monitor insurance companies. Garven and Lamm-Tennant (2003) and Doherty and Smetters (2005) show that reinsurers have an incentive to monitor the behavior of insurers to avoid financial distress "and minimize excessive taxes" (Cole and McCullough, 2006; Cole et al., 2011). Insurance agents can also act as monitoring agents as shown by Regan (1997) and Cole et al. (2011). Finally, and just as shown for typical public firms, outside directors appointed on the BODs are shown to be of particular importance in effectively monitoring management (Linck, Netter, and Yang, 2008).

A particular feature of the property-liability insurance industry in terms of corporate governance has generated a large number of studies. Specifically, insurance firms in the sector exhibit different governance characteristics, particularly their *organizational structure* (mutual versus stock insurance companies). Agency theory arguments hold that mutual insurance companies are better able to control conflicts of interest between policyholders and owners whereas stock insurance companies control better the conflicts between owners and managers (Mayers and Smith, 1992;

Cummins et al., 2007).⁴ Consistent with these arguments, He and Sommer (2011) sustain that insurance companies are subjected to different governance systems: mutual company managers have less discretion and are subject to substantially fewer control mechanisms being primarily internally monitored by the BODs, while stock insurers' managers are monitored by both internal *and* external control mechanisms. He and Sommer (2011) state that "in stock firms managers are subject to managerial ownership, block ownership, institutional ownership and takeover" while mutual company managers are precluded from such monitoring mechanisms.

Recent studies focus on the outcomes of corporate governance in the insurance industry. For instance, Cheng, Elyasiani, and Jia (2011) investigate the link between risk-taking behavior of life-health insurers in relation to their institutional ownership to determine whether market discipline from institutional investors serves as a substitute for regulation.⁵ After controlling for the endogeneity of risk and institutional ownership stability by using a system of simultaneous equations, they find that institutional ownership stability reduces total risk through an increase in leverage and in underwriting risk and an increase in investment risk. Their evidence is in accordance with the incentive role of institutional investors.

Lai and Lee (2011) exploit the particular organizational structure of the U.S. PC insurance industry to assess the link between corporate governance and risk taking (captured by underwriting risk, leverage risk and investment risk, in addition to a measure of total risk). The authors argue that "the stock organizational structure may provide incentives for risk taking to increase the wealth of shareholders." Indeed, shareholders, who have limited liability, are more likely to take risk in order to maximize firm value and hence directly benefit from increased earnings. The costs of insolvency instead would be shared with policyholders (Galai and Masulis, 1976). In the mutual organizational structure, it is "policyholders who bear the consequences of insolvency, and thus maintain a low level of risk taking" (Cummins and Nini, 2002; Ho, Lai, and Lee, 2011). Lai and Lee's (2011) results confirm indeed that mutual insurers have lower underwriting risk, leverage risk, investment risk, and total risk than stock insurers. Most importantly, they find that CEO duality is related to lower leverage and higher total risk. Controlling for BOD's size shows that all types of risks (i.e., underwriting, leverage, investment, and total risk) are higher when BOD's size increases. A lower percentage of independent directors also results in higher investment risk and higher total risk. Earlier studies by Mayers and Smith (1992) and Smith and Stutzer (1990) suggest that the stock organizational structure is associated with risky insurance activities. Stock insurers will engage in riskier activities if the underwriting risk is borne by shareholders that encourages managers to take risk (Cummins et al., 2007). Doherty and Dionne (1993) suggest, however, that the mutual form of insurance coverage may exhibit a high risk-taking behavior because of its higher diversification structure.

⁴See Mayers, Shivsadani, and Smith (1997), Lamm-Tennant and Starks (1993), and Lai and Limpaphayom (2003), among others.

⁵Previous studies on the link between corporate governance and risk taking include John, Litov, and Yeung (2008), Laeven and Levine (2007), and Sullivan and Spong (2007). Available empirical evidence documents that corporate governance, and particularly the audit quality, has a mitigating effect on risk taking (Firth and Liau-Tan, 1998).

Other studies relate alternative governance mechanisms to risk taking. For instance, within internal mechanisms, Adams, Alemida, and Ferreira (2005) find that firms with dual CEOs (i.e., also chairing the BODs) exhibit high risk-taking behavior (i.e., stock return volatility). They interpret this as evidence that “the likelihood of either very good or very bad decisions is higher in a firm whose CEO has more power to influence decisions than in a firm whose CEO has less power in the decision-making process.” A more recent study by Boubakri, Dionne, and Triki (2008) shows that CEO duality is positively related to mergers and acquisitions in the insurance industry. These studies overall confirm that CEO duality is costly to shareholders and worsens agency conflicts within the firm. This evidence in the insurance industry is at odds with the argument in Bebchuk and Weisbach (2009) that the CEO may want to protect his job and hence should be more risk averse.

Another aspect that has been recently addressed in the insurance literature is CEO turnover (He, Sommer, and Xie, 2011). Based on a sample of U.S. property-liability insurance firms, He, Sommer, and Xie (2011) document that firms with a CEO change exhibit more favorable performance changes (measured by revenue and cost efficiency indicators) than their matching counterparts. The use of a frontier efficiency analysis by the authors is motivated by the fact that other performance measures, namely stock or accounting measures, do not allow to consider both public and private firms. He, Sommer, and Xie’s results confirm previous evidence for publicly listed firms in Denis and Denis (1995), who show that accounting performance measured by return on assets (ROA) is higher after CEO changes. These results also complement evidence in He and Sommer (2011), who examine the impact of organizational structure on CEO turnover, and find this latter to be less sensitive to firm performance in mutual insurers compared to stock insurers. This suggests that “managers are less effectively monitored in mutual companies than in stock companies,” as sustained by McNamara and Rhee (1992).⁶

Insider ownership as an internal governance mechanism is theoretically expected to lower firm risk and increase firm value. Downs and Sommer (1999) show that managers in the property-liability insurance firms are more likely to undertake highly risky activities when their stakes in the firm increase from low levels, but this relationship reverses after managerial ownership goes beyond the 45 percent threshold, indicating nonlinearity of the relationship between risk and managerial ownership. This confirms earlier evidence in Morck, Shleifer, and Vishny (1988) and later in Cho (1998) that managerial ownership and firm performance exhibit a nonlinear relationship, with an incentive effect at low levels of managerial ownership and an entrenchment effect at higher levels of ownership.

The literature also includes studies on an important internal governance mechanism in the insurance industry, namely the BODs. Lai and Lin (2008) show in the U.S. property-casualty insurance industry that asset risk is lower, and total equity risk and systematic risk are higher when board size increases. Brick and Chidambaran (2008) also find that board independence (higher proportion of outside directors)

⁶Using the distinction in the organizational structure of property-liability insurance companies, Mayers, Shivdasani, and Smith (1997) document a larger proportion of outside directors in mutual companies compared to stock companies.

is negatively related to firm risk when measured by the volatility of stock returns. MacCrimmon and Wehrung (1990), however, document that a higher percentage of executives on the board will lead to *less* risk taking. These contrasting results seem to support the argument put forward by Amihud and Lev (1981) that managers may become risk averse and will focus on maximizing their job security. In this case, they become more likely to reject high-risk projects. The same argument also appears in Laeven and Levine (2007) and Bebchuk and Weisbach (2009).

More recently Cheng, Elyasiani, and Jia (2011) offer one of the few studies that investigate the potential influence of institutional investors on risk taking in insurance firms. The authors report that institutional investors owned 54 percent of life–health insurers’ stocks and 59 percent of property–casualty insurers’ stocks over the period 1992–2007. Cheng, Elyasiani, and Jia show that these blockholders contribute to reduce market risk, as well as the investment and underwriting risk of property–casualty insurance companies. The literature offers several arguments for such a negative relation: in particular, institutional investors are more likely to put pressure on managers so that they reduce risk and the overall cost of capital of the firm (Pound, 1988; Cebenoyan, Cooperman, and Register, 1999). Additionally, as argued by Cheng, Elyasiani and Jia (2011), institutional investors are likely to pressure managers to reduce risk in order to satisfy both shareholders and regulators. Finally, as their wealth is generally highly concentrated, institutional investors are generally more risk averse and thus have additional incentives to play an active monitoring role in overseeing managers’ activities.⁷ The specific impact of institutional investors on investment risk and underwriting risk is discussed in several previous studies including Staking and Babel (1995), Cummins and Sommer (1996), and Baranoff and Sager (2003). The authors generally assert that, given their expertise and their long-term profile, institutional investors can control investment risk, as well as the underwriting activities and risk of the companies.

In a contemporaneous study, Cole et al. (2011) are first to control for the joint determination of a variety of stakeholders acting as monitors to insurers (i.e., reinsurers, agents, outside board members, and regulators) in determining risk taking. Their results show that the impact of some stakeholders offsets the impact of others, although overall all stakeholders contribute to reduce firm risk measured by Best’s capital adequacy ratio and the variance in the ROA.

There is rare international evidence on corporate governance impact on performance in the insurance industry compared to the literature on international corporate governance of typical public firms. One recent exception relates to the risk-taking behavior of European insurance companies from the United Kingdom and Germany. Specifically, Eling and Marek (2011) are able to provide evidence that controls for the differences between the market-based U.K. corporate governance environment and the control-based system that prevails in Germany. Using a sample of 276 firms between 1997 and 2009, they proxy risk taking by asset risk and product risk, and focus on stock insurance companies. Their corporate governance indicators include executive compensation, supervisory board compensation, and independence, as well as the number of board meetings and ownership structure. The study concludes that U.K.

⁷Please refer to Sullivan and Spong (2007), for instance.

insurance firms engage in more risk taking than their German counterparts and that large shareholdings and concentrated ownership contribute to increase risk taking.

RECENT CORPORATE GOVERNANCE REFORMS

Corporate governance is of particular importance in light of the recent financial crisis. Since the last accounting scandals that undermined investors' confidence, new regulations on corporate governance were made mandatory for public firms. The main regulatory change is the Sarbanes–Oxley Act of 2002 (SOX hereafter). SOX identifies corporate governance best practices that need to be complied with by publicly listed companies. Specifically, public companies are now required to have a significant proportion of independent directors on their BODs to ensure that business decisions are made objectively and to the benefit of shareholders. To qualify as an independent director, one needs to have no business relationship with the firm and should not be employed by the firm BOD on which he is sitting. Sections of SOX also impose that the BODs have the following committees: one for audit, one for compensation, and one that addresses nominations and corporate governance issues. All these committees report to the BODs. Also a code of ethics needs to be implemented within the firm addressing issues such as potential conflicts of interests, confidentiality issues, and compliance with laws and regulations. In this respect, SOX Section 806 provides substantial protection to employee whistleblowers who report events of company misconduct.

Although nonpublic insurance companies are not yet legally bounded to comply with SOX provisions, it is very likely that they will adopt part of these corporate governance best practices. In fact, reforms in corporate governance and disclosure policy are warranted from insurance companies, especially in light of the National Association of Insurance Commissioners' (NAIC) proposed revisions to the Model Audit Rule that is based on aspects similar to SOX. These proposed revisions include creating independent audit committees whose members should be financially literate, and implementing an internal control process over financial reporting as suggested by section 404 of SOX, in order to ensure the transparency and reliability of the accounting information provided by the firm.⁸ Outside the United States as well, and particularly in Europe, major changes in risk management and disclosure requirements, all of which relate to corporate governance are expected when the Solvency II regime becomes effective.⁹ To the best of our knowledge, there is no empirical evidence yet on the impact of SOX on the profitability or risk-taking behavior of insurance companies, except for a study by Lai and Lee (2011) that shows that "insurers have higher underwriting risk and total risk but lower leverage risk post-SOX." These results suggest that the change in regulation was an effective device in tackling the excessive risk behavior of insurers. This evidence is generalized to U.S. publicly traded companies, irrespective of their sector, by Barger, Lehn, and Zutter (2010).

⁸The audit committee is also responsible for monitoring risk management activities.

⁹As defined on the web page of the Financial Services Authority (www.fsa.gov.uk): Solvency II is a fundamental review of the capital adequacy regime for the European insurance industry. It aims to establish a revised set of EU-wide capital requirements and risk management standards that will replace the current solvency requirements.

CONCLUSION AND AVENUES FOR FUTURE RESEARCH

In the aftermath of the crisis, regulators, investors, shareholders, and policyholders all alike, question the effectiveness of the existing corporate governance system in overseeing insurance companies, and their excessive risk taking. In this respect, Baranoff and Sager (2009) note that "during 2008, asset risk dominated the attention of life insurers as they grew to appreciate the true risks of their vast holdings of mortgage-backed securities (MBS)."

The measurement and characterization of the different aspects of risk require more in-depth studies. The literature on risk taking in insurance firms uses different measures of risk taking: market risk measures, accounting risk measures, risk-based capital via cash-flow simulations, and financial health of insurance firms. Cole et al. (2011) sustain that previous studies therefore capture only certain aspects of firm risk. Similarly, earlier studies used a variety of performance measures including cost and efficiency scores, accounting measures of performance, and stock price measures. Further research is warranted to answer questions pertaining to these measurement issues such as: (1) What is the best risk/performance indicator?¹⁰ (2) Can one build a measure of comprehensive risk exposure or is it better to keep the analysis on an individual risk measure?

These questions are of particular importance in light of the evidence in Lai and Lee (2011), who show that corporate governance variables have different impacts depending on the risk measure. Correcting for the endogeneity of corporate governance in performance and risk in this kind of studies is also very important as emphasized by Cheng (2008). The recent evidence in Cheng, Elyasiani, and Jia (2011), who control for this issue underscores the importance of tackling endogeneity in corporate governance studies.

Another area for future research is to expand the literature on the risk-taking behavior of insurance firms after SOX. Section 404 of SOX requires extensive disclosure to investors, and effective internal control systems, to protect shareholder wealth. Several studies have been published on the impact of SOX on firm behavior, and notably risk taking by managers. For instance, Cohen, Dey, and Lys (2005) note that after enactment of SOX in 2002, managers have less incentives to take higher risk (Bargeron, Lehn, and Zutter, 2010). Kang and Liu (2007) find that managers of firms with better corporate governance and less information asymmetry become more conservative in their investment choices after enactment of SOX. Boyle and Grace-Webb (2008) suggest that SOX has resulted in higher auditing costs, lower corporate investment and less risk taking (Litvak, 2007). Downs and Sommer (1999) find a positive relation between risk and managerial ownership in the insurance industry. The risk-reducing effect of institutional ownership on insurers is also more pronounced after 2001. The finding in Cheng, Elyasiani, and Jia (2011) that institutional investors ownership stability can reduce insurer risk suggests that regulators may curtail excessive risk taking by incentivizing steady ownership by institutional investors. However, one needs to control for the joint determination of different monitoring groups (as in

¹⁰He, Sommer and Xie (2011) provide a partial answer by stating that frontier efficiency scores are better adapted to a study of public and private insurance firms since most of them are private and stock prices are not available.

Cole et al., 2011). In the same vein, researchers should exploit the upcoming implementation of the Solvency II regime in Europe to expand the literature on the impact of deregulation on insurance firms in an international context.

Remuneration and executive compensation that have often been blamed during the crisis for the problems witnessed by major financial institutions, also deserve more attention in future research. A step in this direction is found in Mayers and Smith (2010), who recently examine the link between outside directors and pay-for-performance sensitivity in mutual and stock insurers. They find that compensation changes are more sensitive to changes in performance when the proportion of outside directors on the board is higher, but only in mutuals. Also related to executive compensation, the literature is lacking evidence on the potential incentives for earnings management. A recent contribution in this respect is by Eckles et al. (2011), who investigate the impact of executive compensation and corporate governance on earnings smoothing in the U.S. insurance industry. The authors show that the degree of earnings manipulation depends on corporate governance structures, especially board independence. Higher bonus payments are also found to contribute to earnings management in insurance companies.

Finally, an alternative corporate governance mechanism, namely rating agencies, has been thrust in the spotlight during the recent financial turmoil. These agencies, under intensive debate on future regulation, are perceived to have failed along two aspects: first, they are blamed for the lack of accurate information available to market participants. Also, they are blamed for failing to reduce the information asymmetries between investors and insiders. The role of rating agencies as a potential corporate governance mechanism has received little attention (Frost, 2006), especially in the insurance industry (Pottier and Sommer, 1999), but the subject definitively deserves further investigation.

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