

Executive remuneration in blockholder-dominated firms. How do Italian firms use stock options?

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Abstract The aim of this study is to explore how stock options are used for executive remuneration in blockholder-dominated listed firms. By analysing how stock options granted to executive directors were designed, this paper sheds light on how stock options are used in Italian blockholder-dominated listed firms. Empirical evidence from a unique hand-collected dataset comprising stock options granted by Italian non-financial listed firms between 2004 and 2006 suggests that stock option design seems to be better explained by rent-extraction theory than by optimal contracting theory. Our results suggest that board independence, particularly in terms of minority shareholders' representation, seems to have a positive influence on stock option design. These findings are consistent with rent-extraction theory: stock option designs that are not explained by optimal-contracting theory are likely to reflect governance/agency problems. This study provides insights on executive remuneration to policy-makers. It is recommended that codes of best practice should stress the importance of stock option design and of remuneration committees' independence, in particular in terms of minority shareholders' representation. Last but not least, this study points out the importance of enforcing substantial compliance with the codes' recommendations.

Keywords Stock options · Executive remuneration · Italy · Board of directors · Blockholder

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1 Introduction

Executive director remuneration (hereafter executive remuneration) and, in particular, the use of stock option plans (henceforth referred to as SOPs) represent one of the major (and most controversial) aspects of the rationale for enhanced corporate governance (e.g., Core et al. 2003; Jensen et al. 2004). The dominant theoretical perspective for the studies on executive remuneration has been principal-agent theory (e.g., Jensen and Meckling 1976; Jensen and Murphy 1990a). Executive remuneration should be designed to provide incentives that reward executive directors for acting in ways that benefit shareholders. The ‘classic’ agency model assumes that introducing incentive-based contracts reduces the agency problem that arises because of the misaligned interests between shareholders (principals) and executive directors (agents). However, Jensen et al. (2004: 50) remarked that “while remuneration can be a solution to agency problems, it can also be a source of agency problems”. Indeed, Bebchuk et al. (2002) noted that SOP design in the US does not reflect optimal contracting, rather it reveals rent-extraction motives.

This study aims to extend existing literature by studying blockholder-dominated listed firms (rather than widely-held listed firms) and focusing on SOP design instead of SOPs’ adoption. By analysing SOP design this study aims to explore whether SOPs given to executive directors in Italian blockholder-dominated listed firms have either optimal-contracting or rent-extracting motives. Then, it analyses the relationship between SOP design and board independence to investigate whether SOP design is influenced by board independence.

Previous studies on firms with a concentrated ownership structure focused on the adoption of SOPs (Mehran 1995; Park et al. 2000; Zattoni and Minichilli 2009), rather than on SOP design. Although there is ample evidence on SOPs in widely-held firms (e.g., Yermack 1995; Bebchuk et al. 2002; Core et al. 2003), there is a lack of empirical investigation on SOPs granted to executive directors in blockholder-dominated firms. Such firms have received significantly less attention, despite the evidence that they are pervasive outside the few developed countries with a tradition of dispersed share ownership (La Porta et al. 1999; Claessens et al. 2000; Barca and Becht 2001; Faccio and Lang 2002).

In blockholder-dominated firms the ‘classic’ agency problem between shareholders and directors may still exist, but has a secondary role. When ownership is highly concentrated, large blockholders are dominant when they become insiders who have the power to influence board decision-making (Melis 2000; Barca and Becht 2001), and when they are able to appoint the majority of the board of directors, and choose not to hire professional directors, but to appoint themselves (or their close relatives) to board positions (e.g., Melis 1999; Claessens et al. 2002). Dominant blockholders may be able to use their power to extract rents, at the expense of minority shareholders (e.g., Claessens et al. 2000; Johnson et al. 2000; Melis 2000). Thus, the primary agency problem is between the dominant blockholder and minority shareholders (e.g., La Porta et al. 1999; Bebchuk et al. 2000; Barca and Becht 2001; Young et al. 2008). Given its involvement in the firm’s management the presence of a dominant blockholder reduces the agency problem

arising from the separation of ownership and management and/or monitoring (e.g., La Porta et al. 1999; Barca and Becht 2001). Hence, blockholder-dominated firms might use SOPs differently from Anglo-Saxon widely-held firms (Alvarez-Perez and Neira-Fontela 2005; Zattoni 2007).

The choice of Italy as an institutional setting is based on three factors. First, there is a need for more corporate governance studies, and specifically those on stock options, outside the US and UK. The vast majority of previous studies analysed executive compensation and equity-based remuneration primarily in the US and, to a lesser extent, in the UK. Second, Italy is one of the world's most developed economies whose listed firms' ownership and control characteristics (e.g., La Porta et al. 1999; Barca and Becht 2001; Faccio and Lang 2002) and corporate governance issues and agency problems (e.g., Bebchuk et al. 2000; Claessens et al. 2002; Melis 2000; Young et al. 2008) are similar to those of the majority of listed firms in most countries apart from the US and UK. Third, Italy has been considered as 'representative' of a corporate governance environment in which instances of expropriation by dominant blockholders may occur at the expense of minority shareholders (e.g., Johnson et al. 2000; Dyck and Zingales 2004; Kruse 2007; Djankov et al. 2008). Thus, our findings may be generalized to blockholder-dominated firms in other countries.

Our study combines qualitative and quantitative research designs to explore an under-researched field and provides some explanation of corporate reality (e.g., Conyon et al. 2000; Creswell 2003). A two-stage research design is adopted. The first stage is aimed at understanding which theory (optimal contracting theory or rent-extraction theory) provides a better explanation of the design of SOPs granted to executive directors in Italian non-financial blockholder-dominated listed firms. A qualitative approach is adopted as it is effective to deal with hardly quantifiable issues (Jensen et al. 1989; Bebchuk et al. 2002). The second stage applies quantitative research methods to investigate whether board independence is likely to influence SOP design.

The analysis of the design of the SOPs given to executive directors of Italian non-financial listed firms provides evidence that SOPs for executive remuneration seem to be the outcome of an agency problem, rather than its solution. Rent-extraction theory seems to provide a more powerful explanation of the SOP designs analysed. Our results also suggest that the independence of the remuneration committee, particularly in terms of minority shareholders' representation, seems to have a positive influence on SOP design. These findings are consistent with rent-extraction theory: SOP designs that cannot be explained by optimal-contracting theory are likely to reflect governance/agency problems.

2 Literature review and development of hypothesis

Optimal contracting theory explains executive remuneration with the traditional 'arm's-length model': executive remuneration is set by a board of directors that acts independently and has shareholder interests primarily in mind when determining remuneration. Boards seek to maximize shareholder value. Hence, executive

remuneration packages are designed to minimize agency problems that may arise between executive directors and shareholders, by aligning the interests of the agents with those of the principals. In particular, SOPs provide adequate incentives to executive directors to pursue the improvement of share value, i.e. shareholders' value (Jensen and Murphy 1990a,b). Their use is assumed to provide executive directors with a proprietary interest in the company (Murphy 1999), and align the potentially non-congruent goals of agents (executive directors) and principals (shareholders) (e.g. Jensen and Murphy 1990b).

However, SOPs have been considered as a mechanism able to “camouflage” inefficient wealth transfers from shareholders to “greedy” executive directors (Hall and Murphy 2003: 64). Like optimal contracting theory, rent-extraction theory (see Bebchuk et al. 2002) starts with the recognition of an agency problem. However, in contrast to the optimal contracting approach, rent-extraction theory suggests that boards do not operate at arm's length in devising executive remuneration arrangements. Bebchuk and Fried (2004) point out that just as there is no reason to assume that senior managers automatically seek to maximise shareholder value, there is no reason to expect that directors will either. Director behaviour is also subject to an agency problem: executive directors have the power to influence their own remuneration design, and use that power to extract rents, at the expense of shareholders (Bebchuk et al. 2002).¹ In particular, Bebchuk et al. (2002) noted that poorly designed SOPs seem to be a product of the agency problem, rather than a potential solution to it. SOPs should be designed to reflect optimal contracting (Bebchuk et al. 2002; Bebchuk and Fried 2004).

2.1 SOP design

The most relevant components of SOP design comprise the identity of the beneficiaries, the vesting and lock-up periods (e.g., Zattoni 2007; Hilb 2008; European Corporate Governance Forum 2009), and the presence of either a market/industry-indexed exercise price (Johnson and Tian 2000) or a performance-conditioned vesting (e.g., Rappaport 1999; Bebchuk et al. 2002; Kuang and Quin 2009). The picture that emerges from the aggregation of these components (i.e. the SOP design) is fundamental to understanding whether an SOP is likely to be effective (or not) to achieve its stated aim (Bebchuk et al. 2002; Jensen et al. 2004).

2.1.1 Identity of beneficiaries

Zattoni (2007) pointed out that non Anglo-American firms might use SOPs to achieve one of the following aims: (a) to align the interests of executive directors and shareholders, (b) to encourage medium-long term value, (c) to attract highly qualified personnel and cultivate their loyalty, and (d) to enhance identification with the firm. The above mentioned SOP aims are based on the existence of a ‘classic’

¹ Executive remuneration is only one of the means available to dominant blockholders to extract rents (Johnson et al. 2000; Dyck and Zingales 2004; Enriques and Volpin 2007; Barontini and Bozzi 2010), but is a legal method, whereas other rent-extraction means such as tunnelling may be illegal.

agency problem which is due to the fact that the agent is separated from the principal and does not have a proprietary interest in the firm. In fact, agency costs between shareholders and agents can be beneficially low if there is an identity between the interests of principals and agents (Fama and Jensen 1983). Thus, the identity of the SOP beneficiary becomes relevant to understand whether an SOP design can be explained either by optimal contracting theory or by rent-extraction theory. When a dominant blockholder appoints her/himself as an executive director, s/he becomes directly involved in the management of the company. Executive directors who own a large block of shares already have relevant stakes that make them have a proprietary interest, be loyal and identified with the firm, and motivate them to pursue long-term value creation (Zattoni 1999). In such circumstances an executive director is entrenched, thus optimal contracting theory is not able to explain the use of SOPs as there is no potential divergence of interests between principals and agents that needs alignment (e.g., Fama and Jensen 1983; Zattoni 1999; Melis 2000; Schulze et al. 2001; Quagli et al. 2006). Since such directors already have a proprietary interest in the firm, the use of SOPs to achieve goals such as alignment of interests, loyalty and identification with the company, and/or medium-long term value is hardly explained by optimal contracting theory. However, while useless from an optimal contracting view, an SOP granted to an executive director who is the dominant blockholder can be explained by rent-extraction theory. The lack of disclosure on SOP design (e.g., Hall and Murphy 2003; Singh 2006; Zattoni 2007) allows firms to “camouflage” the value transferred to blockholders (Bebchuk et al. 2002).²

2.1.2 Length of vesting and lock-up periods

Maximizing the total value of the firm is the objective function that is able to guide executive directors in making the optimal tradeoffs among multiple constituencies (e.g., Monks and Minow 2008: 43). Maximizing firm value requires executive directors to take actions today that increase the firm’s future cash flows. These future cash flows should be observable, i.e. verifiable, before executive directors are rewarded (Holmstrom 1979). However, not rewarding executive directors for efforts that increase future cash flows reduces their incentives to undertake actions today that yield future gains. Equity-based remuneration such as stock options can provide executive directors such incentives because they link remuneration to stock returns (e.g., Smith and Watts 1982; Peng and Roell 2008). However, given the potential opportunism of executive directors (Williamson 1985),³ incentive-based remuneration creates opportunities for self-dealing (e.g., Shleifer and Vishny 1997; Johnson et al. 2000). Executive directors’ differential information over shareholders is a source of their rents: not only do executive directors recognize this, but they also take actions to increase the asymmetries of information (Edlin and Stiglitz 1995).

² In addition, when tax law provides SOP beneficiaries a favourable treatment, SOPs allow them to save a relevant amount of money on their tax income.

³ Williamson (1985: 67) pointed out that the assumption that human beings may be opportunist (as well as rationally bounded) is in accordance with reality. In addition, in absence of opportunism there are no “serious contractual difficulties”, and governance would have little if no role.

Earnings management may be used to distort the stock price because the market cannot undo the biases in the company's reports (Ronen et al. 2006). Given these information asymmetries, myopic actions taken by executive directors may not be detected or priced (Stein 1989). If stock prices in the short-term do not fully reflect firm performance, it is efficient to design remuneration based on stock prices in the long-term, after more information is revealed (Fudenberg et al. 1990; Peng and Roell 2008). The Fudenberg et al. (1990) model shows when long-term remuneration contracts are important in managerial contracting: if the agent has an intermediate-term information advantage over principals about the long-term outcomes of his/her actions, it is efficient to write-down a contract with payoffs that occur after the principals can observe the long-term outcomes (see also Holmstrom 1979). Hence, motivating executive directors to undertake firm value-maximizing decisions requires long-term remuneration contracts, which await the arrival of additional information on current activities (Peng and Roell 2008).

A long-term perspective in executive remuneration is generally recommended by codes of best practice (e.g., Combined Code 2008; Italian Code of conduct 2006; French Code of best practices 2008; German Code of best practices 2009).⁴ In addition, supra-national institutions, such as the OECD Principles of Corporate Governance (2004) and the European Commission (2009), recommend boards of directors to align executive remuneration "with the longer term interests of the company and its shareholders" (OECD Principles of Corporate Governance 2004, part VI).⁵

Hence, the length of the vesting and lock-up periods is a relevant characteristic of SOP design (e.g., Zattoni 2007; Hilb, 2008; European Corporate Governance Forum 2009). On the one hand, if the beneficiary is not allowed to exercise (sell) the options (shares) in the short-term, as compensation is deferred, s/he is discouraged to conduct myopic behaviour (e.g. Milgrom and Roberts 1992: 432; Jensen et al. 2004). On the other hand, SOP designs characterised by a short-term vesting period and no requirement (i.e. lock-up) for beneficiaries to hold subscribed shares for the long-term can motivate executive directors to take decisions that myopically boost the short-term stock price, but may reduce (or fail to foster) medium-long term value and so harm shareholders (Bernhardt 1999; Grant et al. 1996; Palepu and Healy 2003).

Bebchuk et al. (2002) noted that the lack of lock-up mechanisms is coherent with rent-extraction theory, rather than with optimal contracting theory. However, the absence of a lock-up period could still be explained by optimal contracting theory in the presence of a long-term vesting period (Hoi and Robin 2004). Long vesting periods could allow principals to have more information to value the outcomes of the agents (Fudenberg et al. 1990; Peng and Roell 2008). In addition, all the SOP aims mentioned by Zattoni (2007) are not short-term goals. Thus, while an SOP with long-term vesting plus lock-up periods is potentially coherent with those aims,

⁴ Shareholders' preferences about the firm horizon are potentially heterogeneous and hardly estimable in practice. However, codes of best practices may be considered as a good proxy of the aggregator of information for shareholders' preferences.

⁵ National company laws (e.g., UK company act, 2006, section 172) often state the duty of a director to have regard to the likely consequences of any decision in the long term.

an SOP designed with a short length of vesting plus lock-up periods is likely to be ineffective in achieving any of those goals.

Hence, the length of vesting plus lock-up periods matters in understanding whether SOP design is likely to reflect optimal contracting or can be explained by rent-extraction theory.

2.1.3 Market/industry-indexed exercise price and performance-conditioned vesting

SOP design should filter out stock price changes that are due to general market trends, as they are unrelated to executive directors' performance (Johnson and Tian 2000; Bertrand and Mullainathan 2001). The presence of either a performance-conditioned vesting or a market/industry-indexed exercise price avoids rewarding beneficiaries for stock performance which is unrelated to their own performance (Bebchuk et al. 2002; Kuang and Quin 2009). In particular, if a firm states that the aim of an SOP is to foster medium-long term value, an SOP design can hardly be explained by optimal contracting theory when it does not either feature a market/industry-indexed exercise price (e.g. Rappaport 1999) or a performance-conditioned vesting (Bebchuk et al. 2002). While the absence of such mechanisms can hardly be explained by optimal contracting theory (Hall and Liebman 1998), Bebchuk et al. (2002) show how it is coherent with rent-extraction theory.

2.2 Role of boards of directors and development of hypothesis

Corporate governance, and in particular the board of directors, is likely to have an influence on executive remuneration (e.g., Core et al. 1999; Bertrand and Mullainathan 2001; Sykes 2002; Conyon and He 2004; Jensen et al. 2004). Indeed, the OECD (2004: para VI) recommends that corporate boards (and independent directors in particular) ensure that executive remuneration is "efficient". Indeed, remuneration decisions are not usually made by shareholders, rather by boards of directors, upon the recommendations of the remuneration committee (Jensen et al. 2004). Corporate boards are expected to exercise an "objective independent judgement" on corporate affairs, such as executive remuneration (OECD 2004: para VI). Rent-extraction is facilitated by ineffective boards of directors (Bebchuk et al. 2002), i.e. boards that are unable to exercise an 'objective independent judgement' because directors' decisions are influenced by the wielding of power by corporate insiders (either powerful CEOs or dominant blockholders). In such cases the board is not independent (Sykes 2002; Jensen et al. 2004), and (minority) shareholders are not able to have a voice on executive remuneration (Bebchuk et al. 2002). Corporate insiders' power arises because boards of directors are not independent from them (Jensen et al. 2004).

Thus, relative to SOP designs explainable by rent-extraction theory, SOP designs explainable by optimal contracting theory are more likely to be granted by a board of directors that is able and willing to make an independent judgment over executive remuneration because of the limited influence of the dominant blockholder's power. In particular, non-executive directors are expected to promote the use of performance-related remuneration (Cadbury report 1992; OECD 2004). However,

although non-executive directors are supposed to look after the interests of all shareholders, their effectiveness is questionable. The principal concern is their independence. An independent board of directors plays a fundamental role in designing a contract that is supposed to align the interests of shareholders and directors (e.g., Jensen et al. 2004). The presence of an adequate number of independent directors should solve any material conflict of interest within the board, and improve the board's ability to exercise an 'independent judgement' (European Commission 2005) that leads to an "efficient" director remuneration. Thus, we expect that:

H1 Boards with a higher proportion of independent directors are more likely to design SOPs explainable by optimal contracting theory, measured by the absence of beneficiaries with a relevant proprietary interest in the firm, long vesting plus lock-up period, and the presence of either a performance-conditioned vesting or a marked-indexed exercise price.

The independence of the board can be affected by the presence of a dual CEO, who has a high level of power (e.g., Cadbury report 1992). In such a situation, directors may not be able to express their independent opinions (Morck 2008). In blockholder-dominated firms, board independence can also be affected when the chairperson is a member of the controlling family or a person who is affiliated to the dominant blockholder. Splitting the positions of CEO and Chairperson (Cadbury Report 1992; Jensen 1993; Monks and Minow 2008) and giving an independent director (e.g., Coles and Hesterly 2000) the authority over the board agenda seems to be a powerful option for increasing effective oversight. Hence, we expect that:

H2 Boards with an independent Chairperson are more likely to design SOPs explainable by optimal contracting theory, measured by the absence of beneficiaries with a relevant proprietary interest in the firm, long vesting plus lock-up period, and the presence of either a performance-conditioned vesting or a marked-indexed exercise price.

Remuneration committees play a key role in SOP design, as they are the source from which decisions initially originate (Canyon and He 2004; Sun and Cahan 2009). Their composition is important to limit the dominant blockholder's power by providing proposals on effective remuneration packages for executive directors (Canyon and He 2004; Italian Code of conduct 2006; Spanish combined code of best practices 2006). Remuneration committees that are not independent do not protect the firm in its pay negotiations with executive directors, leading to structures of executive pay that have inappropriate incentives (Bebchuk and Fried 2004). The risk is that an executive director writes his/her own remuneration contract with one hand (i.e. on behalf of the firm) and then signs it with the other one (Williamson 1985: 313). As a result, an SOP may not be designed to align executive directors' interests with those of shareholders, but to allow executive directors to extract a rent (Bebchuk et al. 2002). Directors should play no role in decisions about their own remuneration (e.g. Cadbury Report 1992). Personal stakes of committee members in the transaction are likely to influence their decisions (Canyon and He 2004). Thus, we expect that:

H3a Boards with a remuneration committee composed of a majority of independent directors are more likely to design SOPs explainable by optimal contracting theory, measured by the absence of beneficiaries with a relevant proprietary interest in the firm, long vesting plus lock-up period, and the presence of either a performance-conditioned vesting or a marked-indexed exercise price;

H3b Boards whose remuneration committee members do not have a personal stake in SOPs are more likely to design SOPs explainable by optimal contracting theory, measured by the absence of beneficiaries with a relevant proprietary interest in the firm, long vesting plus lock-up period, and the presence of either a performance-conditioned vesting or a marked-indexed exercise price.

In blockholder-dominated listed firms the presence of directors appointed by minority shareholders is likely to foster the blockholder's accountability and help protect minority shareholders' interests (Enriques and Volpin 2007). Directors appointed by minority shareholders enjoy no private benefits of control, have strong incentives to act independently of executive directors (Bebchuk et al. 2010), and therefore to exert monitoring over executive remuneration (Bertrand and Mullainathan 2001; Sun and Cahan 2009) by seeking remuneration arrangements that serve shareholder interests (Bebchuk et al. 2010). This is most likely to occur when a director appointed by minority shareholders sits on the remuneration committee, given the pivotal role of this committee in SOP design (Conyon and He 2004). Hence, we expect that:

H4a Boards with a higher proportion of directors appointed by minority shareholders are more likely to design SOPs explainable by optimal contracting theory, measured by the absence of beneficiaries with a relevant proprietary interest in the firm, long vesting plus lock-up period, and the presence of either a performance-conditioned vesting or a marked-indexed exercise price;

H4b Boards whose remuneration committee includes a director appointed by minority shareholders are more likely to design SOPs explainable by optimal contracting theory, measured by the absence of beneficiaries with a relevant proprietary interest in the firm, long vesting plus lock-up period, and the presence of either a performance-conditioned vesting or a marked-indexed exercise price.

3 Corporate governance in Italy

In Italian non-financial listed firms corporate control ultimately rests in the hands of one shareholder or a closely allied set of investors (e.g., Volpin 2002; CONSOB 2007). Previous studies (e.g., Molteni 1997; Melis 1999; Bianchi et al. 2001) found that these firms usually have a dominant blockholder who is able to monitor directors. Italian directors are usually accountable and "loyal" to dominant blockholders (Stanghellini 1997; Zattoni 1999; Melis 2000; Quagli et al. 2006) and are entrenched with them (Perrini et al. 2008): their turnover is more closely related to relevant changes in the ownership and control structure than to corporate performance (Volpin 2002; Brunello et al. 2003).

As in other blockholder-dominated listed firms, “weak” directors, dominant blockholders and “unprotected” minority shareholders represent the key corporate governance issues in Italian firms (Melis 2000).

In order to foster blockholder’s accountability, the 2005 corporate law encouraged (but did not require) listed firms to introduce a slate system to reserve at least one seat on the board for directors who are not appointed by the blockholder. Only a minority of Italian listed firms implemented this tool of protection of minority shareholders before it was made compulsory by the law in June 2007 (Malberti and Sironi 2008).

Fixed compensation has been the main ingredient of executive remuneration: SOPs were rarely adopted by Italian non-financial listed firms until the end of the 1990s (Melis 1999; Zattoni 2003). Their diffusion seems dependent on ‘external’ factors (Zattoni and Minichilli 2009). The Italian Code of Conduct (1999, 2002, 2006) has recommended the use of SOPs as part of the remuneration of executive directors, in order to foster alignment of interests between directors and shareholders, and long-term shareholder value. In compliance with the law, it has recommended that boards of directors prepare and submit proposals on director share-based compensation to the shareholders’ meeting. Shareholders’ meetings usually delegate SOP design to the board of directors (and its remuneration committee) and rubber-stamp what proposed by the board. Accounting regulation and tax law favoured share-based remuneration in comparison to cash and other in-kind remuneration (Di Pietra and Riccaboni 2001; Quagli 2006). Before the introduction of IFRS 2 (2004), Italian listed companies considered SOPs as an off-balance sheet operation. Italian tax law considered SOPs as mechanisms able to foster a long-term relationship between the firm and its highly qualified personnel, hence it provided SOP beneficiaries with favourable treatment.

4 Sample and data-gathering

4.1 Sample

This study focuses on Italian non-financial blockholder-dominated listed firms.

The dominant blockholder is defined as a (group of) shareholder(s) that controls an absolute majority of voting rights (‘majority shareholder’), or holds enough voting rights to have *de facto* control (‘controlling shareholder’), or is able to control via a syndicate agreement (‘syndicate agreement’). The dominant blockholder is able to exercise control over a firm, either directly or indirectly through a control chain (e.g., a pyramidal group), by appointing the majority of directors. Following previous studies (La Porta et al. 1999; Claessens et al. 2000; Faccio and Lang 2002; Patelli and Prencipe 2007) we assumed that owning a block of shares in a range between 10 and 20% of voting capital is sufficient to ensure control, on the condition that it actually allowed the blockholder to appoint the majority of directors.

Banks, insurance firms and other financial institutions were eliminated in view of the ownership peculiarities of the financial industry (e.g. Faccio and Lang 2002) and their specific corporate governance regulation.

The complete directory of Italian non-financial blockholder-dominated firms listed in either 2004, 2005 or 2006 was analysed to identify which of them granted SOPs to at least one of their executive directors. This time-frame (2004–2006) allowed us to analyse the design of SOPs for executive remuneration regardless of the influence of the perceived-cost and the tax law hypotheses (e.g., Di Pietra and Riccaboni 2001; Murphy 2002; Zattoni and Minichilli 2009). According to the perceived-cost hypothesis, the use of share-based remuneration has arisen thanks to the favourable accounting treatment (SOPs did not affect the income statement), which made the perceived cost of an SOP much lower than its economic cost (Murphy 2002; Hall and Murphy 2003). Since 2004 Italian firms were aware that SOPs were to be expensed (at their fair value) in their income statement. Italian tax regulation on SOPs changed at the end of 2006.⁶ This time-frame pre-dates the controversy over SOP design in Italy due to the 2008 financial crisis and provides a sample that is potentially adequate to investigate the importance of corporate governance mechanisms.

We identified 325 Italian firms listed on the Italian Stock Exchange in the period considered. We excluded 61 financial firms (banks, insurance firms and other financial institutions), and three non-financial firms that were not blockholder-dominated. Then, we excluded 186 firms that did not grant any SOPs for executive directors in any of the years analysed. Finally, we eliminated two firms due to insufficient information about the SOP design (i.e. length of vesting period and identity of beneficiaries). This resulted in 73 firms. The majority of the firms analysed (56.16%) was characterized by the presence of a majority shareholder (*de jure* control), 28.77% by the presence of a controlling shareholder (*de facto* control), and the remaining ones (15.07%) were controlled via a syndicate agreement. The average (median) capitalization was 3,063.25 (757.95) million euro. Based on the Borsa Italiana coding, 60.27% were classified as industrial firms, the remaining ones (39.73%) as service firms.

Since some firms granted more than one SOP during the observed period, our final sample comprises 164 SOPs granted during the period 2004–2006.

4.2 Data gathering

There is no database with full information on the SOPs granted by Italian listed firms. The data gathering process was not straight-forward. Zattoni (2007) noted that the lack of empirical studies on SOPs in non-US firms was partly due to the lack of disclosure and consequent difficulties in data-gathering. Indeed, in Italy Barontini and Bozzi (2010) could not consider the amount of stock-based remuneration in their study because of the lack of data.

Access to corporate data is a key condition to the success of a study such as this. Interviewing as a data gathering method was flawed: we could not expect directors to reveal that they designed SOPs for rent-extraction purposes. Data were hand-collected from corporate annual reports and websites as well as Consob proxy

⁶ At the end of 2006 the favourable tax treatment was restricted to SOPs with a minimum period (three years) between the grant date and the vesting date.

statements. This allowed us to enrich the analysis with a level of depth and relevant detail that could hardly have been reached using a large sample of data generated by a database. When data were not publicly available (four firms for a total of nine SOPs), the investor relations manager was contacted. Data were sometimes considered as confidential (“The documents requested are not public. We deem their disclosure as non-appropriate”—excerpt of an email received from an investor relations manager of a firm that was eliminated from the sample). The investor relations managers of two firms provided us with the data but required us to treat it as confidential.

We hand-collected corporate governance data from companies’ prospectuses. Data on capitalization and industry sector was gathered from Borsa Italiana, while information about ownership and control structures from the Consob (Italian securities and exchange commission) database.

When the direct blockholder of a firm was another corporate entity, further investigation was needed to find “the major shareholders in these entities, then the major shareholder of the major shareholders, and so on, until one finds the ultimate controller of the votes”, as described by La Porta et al. (1999: 476). Information from the CONSOB database was integrated and ‘triangulated’ with other reliable information gathered from financial analysts’ reports, international and Italian top-tier financial newspapers (*Il Sole 24 Ore*, *Corriere della Sera* and *La Repubblica*), chambers of commerce, AMADEUS, and any other reliable source retrieved from FACTIVA or through financial websites.

We analysed ownership data together with the identity of SOP beneficiaries to investigate their relationship with corporate control. Due to the complexity of the control chain that characterised some cases, anecdotal evidence was considered when it contributed to enrich our understanding about the relationships between beneficiaries and corporate control (Mintzberg 1979).

5 Data analysis

5.1 Stage one

Based on the taxonomy of aims presented by Zattoni (2007), we classified each SOP in accordance with its official purposes, as stated in the SOP itself. Then, we compared and contrasted the SOP design with the official aim of the SOP. The total amount of stock-based remuneration was not considered in the analysis because lack of disclosure would have made such estimate unreliable. Although potentially useful to try to estimate the magnitude of the rent-extraction, the amount of value transferred is not essential to discriminate between SOP designs explainable by optimal contracting theory and SOP designs explainable by rent-extraction theory. What is pivotal to an understanding of which theory explains a SOP is not how much directors are paid, but how (i.e. the SOP design).

As discussed in the conceptual framework, to be explained by optimal contracting theory an SOP should: (a) be given to beneficiaries who are neither dominant blockholders nor affiliated blockholders (the latter are blockholders who

are not dominant but own a block of shares higher than 2% and sit on the board appointed from the dominant blockholder's slate) and (b) have a long duration. When an SOP has more than one beneficiary we considered it as explainable by optimal contracting theory when all beneficiaries are neither dominant nor affiliated blockholders. 'Duration' is a period that includes vesting and lock-up periods. We adopted a three years threshold to define 'long' duration, as suggested by previous literature (e.g., Murphy 1999; Conyon et al. 2000; Alvarez-Perez and Neira-Fontela 2005; Zattoni 2007; Hilb 2008), recommendations of codes of best practice (e.g., Combined code 2008), supra-national institutions (e.g., European Commission 2009), and leading consulting firms (e.g., Satterfield 2002).⁷

When one of those criteria is not met, rent-extraction theory provides a more powerful explanation about SOP design, as the latter is likely to be the outcome of the influence of the dominant blockholder's power. Thus, for example if an SOP was either granted to beneficiaries who are dominant blockholders or have a 'short' duration we considered it as explainable by rent-extraction theory.

Besides, when an SOP was aimed at encouraging medium-long term value, we considered it as explainable by optimal contracting theory only in the presence of an additional condition: the SOP either had a market/industry-indexed exercise price or a performance-conditioned vesting.

We included in a grey area all the long-term SOPs in which beneficiaries were affiliated blockholders as well as SOPs which nearly met the 36 months duration threshold (i.e. $34 \leq \text{duration} < 36$) and that were granted to beneficiaries who are neither dominant nor affiliated blockholders.

5.2 Stage two

Based on the 'explainable by optimal contracting theory/explainable by rent-extraction theory' taxonomy, univariate analysis was used to investigate if there was any significant difference in terms of boards independence. A logistic regression was conducted to investigate whether there is an association between SOP design explained by optimal contracting theory (rent-extraction theory) and (lack of) board independence. We categorized SOP design according to Bebchuk and Fried (2004), who noted that the same factors that limit the usefulness of optimal contracting theory in explaining an SOP design suggest that the latter is explainable by rent-extraction theory. Hence, the dependent variable that indicates which of the competing theories is able to explain SOP design is dichotomical. On the base of our set of hypotheses we used the following independent variables: (a) "Independent ratio", which was measured as the proportion of the alleged independent directors and the total number of directors of the board; (b) "Independent chairperson", that was measured as a dummy variable (equals 1 if the chairperson is independent, and 0 otherwise); (c) "Independent directors on the remuneration committee", that was measured as a dummy variable (equal 1 if the majority of directors that sits on the remuneration committee is independent, and zero otherwise); (d) "Beneficiary on

⁷ In general, academic studies on long-term stock performance evaluation adopt a similar threshold to measure long-term stock performance in the markets (e.g., Fama 1998; De-Wai et al. 2009).

the remuneration committee”, which was measured as a dummy variable (equals 1 if at least one of the members—or one of their close relatives—of the remuneration committee is a beneficiary of the SOP considered and 0 otherwise); (e) “Minority directors ratio”, that was measured as the proportion of directors appointed by minority shareholders and the total number of directors of the board; (f) “Minority directors on the remuneration committee”, which was measured as a dummy variable (equals 1 if at least one member of the remuneration committee is appointed by minority shareholders, and 0 otherwise) (see Table 1).

Table 1 Definition of variables

Variable	Description	Predicted sign	
Theory able to explain SOP design	RET_OCT	Equals 1 when SOP design is explainable by optimal contracting theory (OCT), and 0 when SOP design is explainable by rent-extraction theory (RET).	
H1 Independent ratio	INDEP_RATIO	Proportion between the number of alleged independent directors and the total number of directors.	+
H2 Independent chairperson	INDEP_CHAIR	Equals 1 if the chairperson is an independent director, and 0 otherwise.	+
H3a Independent directors on the remuneration committee	INDEP_REM	Equals 1 if the remuneration committee is composed of a majority of independent directors, and 0 otherwise.	+
H3b Beneficiary on the remuneration committee	BEN_REM	Equals 1 if at least one of the members of the remuneration committee or their close relatives (i.e. parents, sister, brother, son, daughter, and spouse) is a beneficiary of the SOP analysed, and 0 otherwise.	-
H4a Minority directors ratio	MIN_DIR	Proportion between the number of directors appointed by minority shareholders and the total number of directors.	+
H4b Minority director on remuneration committee	MIN_REM	Equals 1 if at least one member of the remuneration committee is appointed by minority shareholders, and 0 otherwise.	+
Control variables			
Board size	BOARD_SIZE	Total number of directors on the board.	?
Type of control	CONTROL_i	Equals 1 if the SOP is granted by a firm controlled by i (i = majority shareholder, controlling shareholder, syndicate agreement) and 0 otherwise.	?
Large outside shareholder	1ST_OUTSHRH	Proportion of the voting shares owned by the largest minority shareholder.	+
Size	SIZE	Natural logarithm of firm market capitalization.	?
Industry	INDUSTRY	Equals 1 if the firm is classified by Borsa Italiana as industrial, and 0 as service.	?
Year	YEAR_i	Equals 1 if the SOP is granted in the year i (i = 2004, 2005, 2006) and 0 otherwise	?

In addition to firm size, industry, and year, we introduced the following control variables: a) board size; b) type of control; c) large outside shareholder

Lipton and Lorsch (1992) and Jensen (1993) argued that board size has a material impact on board effectiveness: as boards of directors get larger, their effectiveness as monitors declines. However, Di Pietra et al. (2008) found only a weak evidence of those arguments for a sample of Italian non-financial listed firms. The control variable “Board size” was measured as the total number of directors on the board.

A blockholder may be dominant being a majority shareholder or a controlling shareholder, or via a syndicate agreement. The type of control might influence the blockholder’s power, and hence SOP design (Perrini et al. 2008; Zattoni and Minichilli 2009; Barontini and Bozzi 2010). However, a blockholder may be dominant regardless of the way s/he controls the firm, i.e. the exact amount of voting shares s/he owns, when s/he is able to appoint the majority of the board’s members (Melis 2000; Kruse 2007). We used the “type of control_i” variable that equals 1 if the SOP was granted by a firm controlled by i (where i is equal to majority shareholder, controlling shareholder or syndicate agreement), and 0 otherwise.

Significant shareholders that are not related to the dominant blockholder might have the latent ability to constrain the blockholder’s power and self-serving behaviour (Shleifer and Vishny 1986; Bertrand and Mullainathan 2001). More specifically, the presence of a large minority shareholder might limit the dominant blockholder’s power. Given the cost and difficulty of selling its shareholdings, the largest minority shareholder may have the incentive to monitor the board of directors, and discourage ineffective remuneration (e.g., Mehran 1995; Core et al. 1999; Cheng and Firth 2005; Bebchuk et al. 2010), such as poorly designed SOPs. “Large outside shareholder” was measured as the proportion of the voting shares owned by the largest minority shareholder.

6 Results

Table 2 provides summary descriptive statistics of the SOP designs analysed.

The in-depth analysis of the design of the SOPs granted for executive remuneration by Italian blockholder-dominated non-financial listed firms suggests that their design can hardly be explained by optimal contracting theory. We found that 46 SOP designs (28.05%) are explained by optimal contracting theory, while 109 of them (66.46%) are explained by rent-extraction theory. The remaining 9 SOP designs (5.49%) are included in the grey area. Table 3 provides some examples of the SOP designs analysed.

Table 4 reports univariate analysis of board independence. Since one firm may have granted more than one SOP, observations may not be independent. Hence, following Villalonga and Amit (2006), univariate analysis was conducted by using t-statistics based on the clustered (by firm) standard error from OLS regressions of each independent variable on the dependent variable. SOP designs explainable by optimal contracting theory were more likely granted by boards that were more independent from the dominant blockholder, when compared and contrasted with boards that designed SOPs explainable by rent-extraction theory (see Table 4). We

Table 2 Main features of the SOPs analysed

Aim of SOPs ^a	To align the interests of directors and shareholders	24.39%
	To attract highly qualified personnel and cultivate their loyalty	70.73%
	To enhance identification with the firm	34.15%
	To encourage medium-long term value	51.83%
Length of vesting plus lock-up periods	Long (≥ 36 months)	42.07%
	Grey ($34 \leq \text{duration} < 36$ months)	4.27%
	Short (< 34 months)	52.44%
	Not applicable ^b	1.22%
Beneficiaries	Dominant blockholder	37.84%
	Affiliated blockholder	3.66%
	Neither dominant nor affiliated blockholder	58.54%
Performance-conditioned vesting	Yes	40.24%
	No/not disclosed	59.76%

^a SOPs may have more than one aim

^b Two SOPs had a performance vesting, i.e. a vesting period that varies on the achievement of pre-determined value of the shares

found significant differences in terms of a remuneration committee composed of a majority of independent directors (0.83 vs. 0.60), presence of SOP beneficiaries among the members of the remuneration committee (0.09 vs. 0.27), proportion of directors appointed by minority shareholders (0.13 vs. 0.02), and presence of remuneration committees with at least one member appointed by minority shareholders (0.37 vs. 0.05). We did not find any significant difference in terms of independent directors and independent Chairperson.

Since observations may not be independent, the logistic regression was run with standard errors adjusted for clustering (by firm) (Williams 2000). To check for multicollinearity we verified the level of correlation among the independent variables. We found a high level of correlation (> 0.80) between the proportion of directors appointed by minority shareholders and the presence of at least one of them on the remuneration committee⁸ (see Table 5). Hence, we report two models of the logistic analysis to test our hypotheses (H4a and H4b).

The results support our hypotheses H3a, H4a and H4b, while hypotheses H1, H2 and H3b are not supported (see Table 6). The independence of the remuneration committee exercises a positive influence on SOP design. In particular, the presence of a majority of independent directors (H3a) as well as the presence of at least a director appointed by minority shareholders (H4b) on the remuneration committee exercise a positive significant influence on the setting of SOP designs explainable by optimal contracting theory (see Table 6). As expected, the presence of at least one

⁸ In addition to correlation, we calculated variance inflation factors (VIFs). As the VIFs of the two above-mentioned variables are greater than 10 multicollinearity may be a serious concern (Kennedy 1998). For the other variables VIFs are smaller than 2.5, so multicollinearity is unlikely to be a problem.

Table 3 Examples of SOP designs analysed

Company	Dominant blockholder	Year	Aims	Duration (mean—months)	Beneficiaries	Performance-conditioned vesting
SOPs explainable by optimal contracting theory						
Geox	Mario Moretti Pologato 71.08%	2005	Cultivate loyalty Identification Value creation	>36	Neither dominant nor affiliated blockholder	Accounting and market performance
Benetton Group	Benetton Family via “Ragione di Benetton di G. Benetton & C. Sapa” 69.94%	2004	Alignment Cultivate loyalty Value creation	36	Neither dominant nor affiliated blockholder	Accounting and market performance
Grey area						
Pirelli Re	Marco Tronchetti Provera via “Pirelli & C spa” 66.20%	2004	Cultivate loyalty	34	Carlo Puri Negri (owned 2.92% of voting shares)	Market performance
SOPs explainable by rent-extraction theory						
Buzzi Unicem	Buzzi family via “Fimedi Spa” 59.42%	2004	Cultivate loyalty Value creation	12	Michele Buzzi Pietro Buzzi	Not disclosed in firm’s reports
Premuda	Rosina Family via “Navigazione Italiana Spa” 28.81%	2006	Value creation	2	Alcide Rosina Stefano Rosina	Market performance

Alignment: to align the interests of directors and shareholders; *Cultivate loyalty*: to attract highly qualified personnel and cultivate their loyalty; *Identification*: to enhance identification of directors with the firm; *Value creation*: to encourage medium-long term value

SOP beneficiary on the remuneration committee (H3b) has a negative influence on SOP design, but is not significant.

Board independence does not have a significant influence on SOP design. Our results support only hypothesis H4a: the proportion of directors appointed by minority shareholders have a significant and positive influence on SOP design, while the proportion of independent directors who sit on the board of directors (H1) and the presence of an independent Chairperson (H2) seem not to have any significant influence.

As expected, among control variables the presence of a large outside shareholder has a positive but marginal significant influence on SOP design (see Table 6).

Our results show that another control variable (year 2006) appears to have a significant, but negative, influence on SOP design. This result might have been

Table 4 Difference of means between SOP design explainable by optimal contracting theory (OCT) and SOP design explainable by Rent-extraction theory (RET)

	SOP design explainable by OCT (mean)	SOP design explainable by RET (mean)	Difference of <i>t</i> - statistics means	
INDEP_RATIO	0.4533	0.3698	0.0835	1.39 (0.06)
INDEP_CHAIR	0.1304	0.0459	0.0846	1.03 (0.08)
INDEP_REM	0.8261	0.5963	0.2298	2.48 (0.09)**
BEN_REM	0.0870	0.2661	-0.1791	-1.90 (0.09)*
MIN_DIR	0.1287	0.0169	0.1118	2.33 (0.05)**
MIN_REM	0.3696	0.0459	0.3237	2.39 (0.14)**

As Villalonga and Amit (2006), we conducted univariate analysis by using *t*-statistics based on clustered (by firm) standard error from OLS regressions of each independent variable on the dependent variable RET_OCT equals 1 if the SOP design is explainable by optimal contracting theory, and 0 by rent extraction theory

INDEP_RATIO measures the proportion of the alleged independent directors and the total number of directors of the board

INDEP_CHAIR equals 1 if the chairperson is independent, and 0 otherwise

INDEP_REM equals 1 if the remuneration committee is composed of a majority of independent directors, and 0 otherwise

BEN_REM equals 1 if at least one of the members (or one of their close relatives) of the remuneration committee is a beneficiary of the SOP analysed, and 0 otherwise

MIN_DIR measures the proportion of directors appointed by minority shareholders and the total number of directors of the board

MIN_REM equals 1 if at least one member of the remuneration committee is appointed by minority shareholders, and 0 otherwise

Level of significance: *** $p < .01$; ** $p < .05$; * $p < .10$. Standard error in *parenthesis*

explained by a decrease of the SOP designs explained by optimal contracting theory in 2006. Thus, we checked if there was any significant difference between the number of SOP designs explained by optimal contracting theory during the time-frame analysed. However, we did not find any strong evidence that supports this interpretation.⁹ An alternative explanation is associated with the introduction, at the beginning of 2006, of the revised version of the Italian Code of Conduct, which has introduced stricter recommendations about committees' composition. In particular, the 2006 Code of Conduct has recommended that remuneration committees should be composed of a majority of independent directors.¹⁰ We found that the presence of a majority of independent directors on the remuneration committee significantly increased between 2004 and 2005 and 2006 (0.60 vs. 0.78, $p = 0.019$). Since the likelihood that a remuneration committee is composed of a majority of independent directors is significantly higher in 2006, following Wright (1976) we split the variable "Remuneration committee independence" into the two variables:

⁹ In the period 2004–2005 approx. 33% of the SOP designs was explainable by optimal contracting theory, while in 2006 this percentage fell down to 23%. However, this difference is not statistically significant ($t = -1.59$; $p = 0.12$).

¹⁰ Before 2006 the Italian Code of Conduct did not provide any recommendation about the presence of independent directors on remuneration committees.

Table 5 Descriptive statistics and Pearson correlation coefficients

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. RET_OCT	0.297	0.458														
2. INDEP_RATIO	0.395	0.199	0.192**													
3. INDEP_CHAIR	0.071	0.258	0.151	0.452***												
4. INDEP_REM	0.665	0.474	0.222***	0.434***	0.100											
5. BEN_REM	0.213	0.411	-0.200**	-0.073	-0.083	-0.191**										
6. MIN_REM	0.142	0.350	0.424***	0.454***	0.426***	0.213***	-0.203***									
7. MIN_DIR	0.050	0.119	0.429***	0.508***	0.412***	0.160**	0.946***	-0.209***								
8. BOARD_SIZE	10.329	3.134	0.004	-0.038	-0.240***	-0.078	0.266***	-0.239***	-0.262***							
9. CONTROL_j (i = Majority shareholder)	0.535	0.500	0.039	-0.122	-0.212***	0.022	0.003	-0.193**	-0.182**	0.116						
10. CONTROL_j (i = Syndicate agreement)	0.135	0.343	-0.175**	-0.297***	-0.046	-0.159**	0.060	-0.113	-0.125	-0.051	-0.370***					
11. IST_OUTSHRH	4.443	4.890	0.105	-0.131	-0.085	0.062	0.015	-0.187**	-0.175**	-0.043	-0.087	0.079				
12. SIZE	13.851	1.800	0.288***	0.448***	0.151	0.069	0.051	0.458***	0.458***	0.314***	0.047	-0.206**	-0.279***			
13. INDUSTRY	0.529	0.501	-0.038	0.082	-0.071	-0.059	-0.119	-0.017	-0.054	-0.130	-0.032	-0.088	-0.034	0.083		
14. YEAR_j (i = 2005)	0.374	0.485	0.052	-0.053	-0.019	-0.023	0.124	0.021	0.035	0.047	-0.141	0.021	-0.001	-0.042	-0.014	
15. YEAR_j (i = 2006)	0.342	0.476	-0.111	0.012	0.037	0.174**	-0.180**	-0.042	-0.090	0.018	0.090	-0.032	0.134	0.004	-0.013	-0.562***

RET_OCT equals 1 if the SOP design is explainable by optimal contracting theory, and 0 by rent extraction theory
 INDEP_RATIO measures the proportion of the alleged independent directors and the total number of directors of the board
 INDEP_CHAIR equals 1 if the chairperson is independent and 0 otherwise
 INDEP_REM equals 1 if the remuneration committee is composed of a majority of independent directors, and 0 otherwise
 BEN_REM equals 1 if at least one of the members (or one of their close relatives) of the remuneration committee is a beneficiary of the SOP analysed and 0 otherwise
 MIN_REM equals 1 if at least one member of the remuneration committee is appointed by minority shareholders, and 0 otherwise
 MIN_DIR measures the proportion of directors appointed by minority shareholders and the total number of directors of the board
 BOARD_SIZE is the total number of directors on the board
 CONTROL_j equals 1 if the SOP is granted by a firm controlled by i (i = majority shareholder, controlling shareholder, syndicate agreement), and 0 otherwise
 IST_OUTSHRH is the proportion of the voting shares owned by the largest minority shareholder
 SIZE is the natural logarithm of firm market capitalization
 INDUSTRY equals 1 if the firm is classified by Borsa Italiana as industrial, and 0 as service
 YEAR_j equals 1 if the SOP is granted in the year i (i = 2004, 2005, 2006), and 0 otherwise
 Level of significance: *** $p < .01$; ** $p < .05$

Table 6 Logistic regression models on the relationship between board independence and SOP design

	MODEL 1a		MODEL 2a		MODEL 1b		MODEL 2b	
	Z	P > z	Z	P > z	Z	P > z	Z	P > z
	INDEP_RATIO	-1.12	0.263	-1.56	0.119	-1.18	0.240	-1.62
INDEP_CHAIR	0.55	0.581	0.80	0.421	0.55	0.582	0.77	0.444
INDEP_REM	2.21**	0.027	2.57***	0.010				
INDEP_REM _ 2004-05					2.18**	0.030	2.52**	0.012
INDEP_REM _ 2006					0.59	0.553	0.72	0.472
BEN_REM	-1.48	0.139	-1.34	0.179	-1.52	0.130	-1.39	0.165
MIN_REM	2.15***	0.032			2.12**	0.034	2.17**	0.030
MIN_DIR			2.19**	0.028				
BOARD_SIZE	0.99	0.323	1.15	0.252	1.01	0.313	1.17	0.241
CONTROL_i (i = Majority shareholder)	0.62	0.534	0.63	0.530	0.63	0.528	0.64	0.522
CONTROL_i (i = Syndicate agreement)	-0.79	0.432	-0.82	0.410	-0.80	0.424	-0.85	0.395
1ST_OUTSHRH	1.76*	0.078	1.69*	0.091	1.77*	0.077	1.69*	0.090
SIZE	1.55	0.121	1.27	0.203	1.57	0.116	1.28	0.199
INDUSTRY	-0.25	0.801	0.03	0.975	-0.25	0.800	0.02	0.986
YEAR_i (i = 2005)	-0.79	0.428	-0.83	0.406	-0.88	0.379	-0.92	0.360
YEAR_i (i = 2006)	-2.85***	0.004	-2.69***	0.007	-0.96	0.337	-0.76	0.448
Constant	-2.43**	0.015	-2.30**	0.021	-2.50**	0.013	-2.37**	0.018
Wald χ^2	41.12***	0.001	46.61***	0.000	43.43***	0.001	50.30***	0.000

Table 6 continued

	MODEL 1a		MODEL 2a		MODEL 1b		MODEL 2b	
	Z	P > z	Z	P > z	Z	P > z	Z	P > z
Hosmer–Lemeshow χ^2	4.42	0.817	8.26	0.4088	10.75	0.2165	6.27	0.6175
Correct predictions (%)	80.00		81.94		80.65		80.65	
No of observations	155		155		155		155	

The dependent variable (RET_OCT) is the theory able to explain SOP design: RET = 0; OCT = 1. Since observations may not be independent, we run a logistic regression with standard errors adjusted for clustering (by firm) (Williams 2000)

INDEP_RATIO measures the proportion of the alleged independent directors and the total number of directors of the board

INDEP_CHAIR equals 1 if the chairperson is independent, and 0 otherwise

INDEP_REM equals 1 if the remuneration committee is composed of a majority of independent directors, and 0 otherwise

INDEP_REM_2004–05 equals 1 if the SOP is granted in the period 2004–2005 and the remuneration committee is composed of a majority of independent directors, and 0 otherwise

INDEP_REM_2006 equals 1 if the SOP is granted in 2006 and the remuneration committee is composed of a majority of independent directors, and 0 otherwise

BEN_REM equals 1 if at least one of the members (or one of their close relatives) of the remuneration committee is a beneficiary of the SOP analysed and 0 otherwise

MIN_REM equals 1 if at least one member of the remuneration committee is appointed by minority shareholders, and 0 otherwise

MIN_DIR measures the proportion of directors appointed by minority shareholders and the total number of directors of the board

BOARD_SIZE is the total number of directors

CONTROL_i equals 1 if the SOP is granted by a firm controlled by i (i = majority shareholder, controlling shareholder, syndicate agreement), and 0 otherwise

1ST_OUTSHRH is the proportion of the voting shares owned by the largest minority shareholder

SIZE is the natural logarithm of firm market capitalization

INDUSTRY equals 1 if the firm is classified by Borsa Italiana as industrial, and 0 as service

YEAR_i equals 1 if the SOP is granted in the year i (i = 2004, 2005, 2006), and 0 otherwise

Level of significance: *** $p < .01$; ** $p < .05$; * $p < .10$. Standard error in *parenthesis*

“INDEP_REM_2004–05” (which equals 1 when the SOP is granted in the period 2004–2005 and the remuneration committee is composed of a majority of independent directors, and zero otherwise) and “INDEP_REM_2006” (which equals 1 whether the SOP is granted in 2006 and the remuneration committee is composed of a majority of independent directors, and zero otherwise). In the models 1b and 2b, reported in Table 6, the variable year 2006 is no longer significant, the presence of a majority of independent directors on the remuneration committee in 2004–2005 is positive and significant, while the presence of a majority of independent directors on the remuneration committee in 2006 is positive but not significant. We interpret this result as follows: as in 2006 the Italian Code of Conduct recommended firms to appoint independent directors on their remuneration committee, it is more likely that firms which introduced a majority of independent directors on remuneration committees after the Code recommendation were seeking external legitimization rather than remuneration committee effectiveness (Tolbert and Zucker, 1983). Thus, the independence of directors who sit on the remuneration committee since 2006 is more questionable than the independence of those directors who sit on the remuneration committee beforehand. Hence, remuneration committees composed of a majority of independent directors since 2006 were less likely to be effective in limiting the dominant blockholder’s power.

To test the robustness of our results we conducted a sensitivity analysis. To examine whether the results reported in Table 6 are sensitive to the cut-off used for the length of the SOP duration (i.e. vesting plus lock-up periods), the sensitivity analysis was conducted by reducing the cut-offs of 5, 10, 15, 20 and 25%. The results are not significantly different from those reported in Table 6: the presence of directors appointed by minority shareholders who sit on the board (with at least one of them on the remuneration committee) is still positive and significant. By using those cut-offs the negative influence on SOP design exercised by the presence on the remuneration committee of at least one SOP beneficiary becomes significant (as expected in H3b), while the presence of a majority of independent directors on the remuneration committee, and of a large outside shareholder, still have a positive influence on SOP design, but their significance is decreased.

In order to document the firm performance following up SOP designs we used ROA collected from the Worldscope database.¹¹ We compared the average of the three-year ex-post ROA, equal to $[ROA_{t+1} + ROA_{t+2} + ROA_{t+3}]/3$ (where t is equal to the year in which the SOP was granted) with the beginning-of-period ROA (ROA_{t-1}) of the two groups of SOP designs.¹² We conducted a univariate analysis by using t -statistics based on clustered (by firm) standard error from OLS regressions. We found that the Δ ROA, equal to $[ROA_{t+1} + ROA_{t+2} + ROA_{t+3}]/3 - ROA_{t-1}$, of firms that granted SOP designs explained by optimal contracting theory is higher, although not significantly from a statistically point of view, than Δ

¹¹ $ROA = [\text{Net Income before Preferred Dividends} + \text{Interest Expense on Debt-Interest Capitalized} * (1 - \text{Tax Rate})] * 100 / \text{Last Year's Total Assets}$.

¹² Because of the lack of data on ROA, 13 SOP designs were excluded from the analysis. We contrasted 40 SOP designs explained by optimal contracting theory with 100 SOP designs explained by rent-extraction theory. For SOPs granted in 2006 we considered the two-year ex-post ROA as 2009 data was not available at the time of the analysis.

ROA of firms that granted SOP designs explained by rent-extraction theory (1.642 vs. 0.076%, $p = .15$).

7 Discussion

This study contributes to the expansion of the existing knowledge about SOP design for executive remuneration in firms other than US/UK widely-held firms, characterised by different agency problems and corporate governance mechanisms. In addition, it contributes to the existing literature on: (1) the optimal contracting theory versus rent-extraction theory debate on executive remuneration; and (2) the influence of board independence on executive remuneration, and particularly on SOP design.

7.1 The optimal contracting theory versus rent-extraction theory debate on executive remuneration

Our findings contribute to the literature (e.g., Bebchuk and Fried 2003, 2004; Jensen et al. 2004) which noted that stock options granted for executive remuneration may be the outcome of an agency problem, rather than its solution. Previous studies (e.g., Shleifer and Vishny 1997; Bebchuk et al. 2000; Melis 2000; Young et al. 2008) recognised that in blockholder-dominated listed firms the key agency problem is between the blockholder and minority shareholders, when the former may extract private benefits from control at the expense of the latter. Our study found evidence of such problem in executive remuneration, and particularly in SOP design. Consistent with Zattoni and Minichilli (2009), we found that theories other than optimal contracting theory seem able to explain SOPs in Italian non-financial listed firms. In particular, Zattoni and Minichilli (2009) provide anecdotal evidence of rent-extraction theory as a potential explanation of SOP adoption. Our analysis of SOP design supports this view by providing the first systematic evidence that rent-extraction theory seems to be a more convincing explanation of corporate reality in Italian non-financial blockholder-dominated listed firms. SOPs may be used by dominant blockholders to extract rents at the expense of minority shareholders. Consistent with previous studies (e.g., Shleifer and Vishny 1997; Johnson et al. 2000; Barontini and Bozzi 2010), we provide evidence that when a blockholder appoints him/herself as an executive director, his/her power allows him/her to negotiate his/her own remuneration contract designed to extract a rent. This does not mean that SOPs granted for executive remuneration in blockholder-dominated listed firms are not potentially explainable by optimal contracting theory, but that SOPs have to be designed to reflect optimal contracting to avoid them becoming a rent-extraction tool.

7.2 The influence of board independence on SOP design

In this study, we also contribute to the understanding of the corporate governance determinants of SOP design for executive remuneration. Overall, our analysis

supports the view that SOP designs that are not explainable by optimal-contracting theory are likely to reflect agency problems and corporate governance breakdowns. In particular, we found that SOP designs explainable by rent-extraction theory are associated with factors related to the greater influence of the dominant blockholder on decision-making, such as the lack of independence of the board of directors and the remuneration committee. Our results contribute to the literature on the potential benefits of independent directors. While previous studies have not been able to establish a link between board independence and corporate performance in general (e.g., Basinger and Butler 1985; Hermalin and Weisbach 1991; Bhagat and Black 2002; Chhaochharia and Grinstein 2007), some specific types of corporate decisions for which such independence matters have been identified (e.g., Byrd and Hickman 1992; Shivdasani 1993; Brickley et al. 1994; Gillette et al. 2003). In particular, it has been found that director independence has an impact on executive compensation decisions (e.g., Core et al. 1999; Bebchuk et al. 2010; Chhaochharia and Grinstein 2009).

Our results show that the presence of either independent directors on boards or independent chairpersons does not have any significant influence. A possible explanation of these results may be due to the pivotal role of the remuneration committee on SOP design (see also Conyon and He 2004; Sun and Cahan 2009). Hence, our findings contribute to the debate on the role of remuneration committees in setting executive remuneration. Previous studies on remuneration committee independence (e.g., Anderson and Bizjak 2003; Daily et al. 1998) did not find any relation between the presence of affiliated directors on the remuneration committee and executive remuneration levels. On the other hand, other studies (e.g., Conyon and Peck 1998; Newman and Mozes 1999) found that executive remuneration is more favourable to CEOs when the remuneration committee contains insiders. Our study supports the importance of the independence of the remuneration committee, by providing evidence that when remuneration committees are composed of at least an independent director appointed by minority shareholders, stock options are more likely to be designed in accordance with optimal contracting theory.

Our study casts some doubts on the independence of directors (e.g., Bebchuk and Fried 2004; Luan and Tang 2007), in particular when codes of best practice recommend their presence on boards. In the same vein of Tolbert and Zucker 1983, our results suggest that firms which introduced independent directors after the 2006 Code recommendation seek external legitimization rather than board independence. Thus, alleged independent directors appointed by the dominant blockholder may not be effective monitors on the design of executive remuneration. In particular, our results suggest that independent directors appointed by minority shareholders are more effective in exercising an ‘objective independent judgement’ on executive remuneration. Our interpretation is that while the presence of a majority of independent directors on the remuneration committee before the introduction of the Code of Conduct’s recommendation is an important determinant of SOP design, it becomes a relatively poorer predictor as its presence becomes more institutionalized (Tolbert and Zucker 1983).

Our findings also contribute to the literature on the potential governance benefits of large outside blockholders (e.g., Mehran 1995; Bertrand and Mullainathan 2001;

Bebchuk et al. 2010), as we find that the existence of a large outside blockholder makes a difference on certain aspects of firm behaviour. With respect to stock option design, we show that a large outside blockholder seems to exercise a positive influence, in particular when s/he sits on the board (remuneration committee).

7.3 Limitations, future research, and policy implications

This paper focused on a single country. This choice is able to foster internal validity, but might potentially limit the extent to which the results of a study may be applied to other countries. However, this does not seem to be the case with this study as, although our research was set in Italy, our findings may provide further understanding (and policy implications) for all blockholder-dominated listed firms, which represent the great majority of firms listed around the world. Even though the sample size of our study was relatively limited, we believe that the richness of the data was adequate to conduct an explorative study able to shed light on interesting, useful and not yet documented results on the design of SOPs granted to executive directors in blockholder-dominated listed firms. This paper has not provided complete answers to the issues addressed. Such answers are seldom provided by any single paper, but rather are usually the result of an entire scientific process (Jensen et al. 1989). Due to lack of disclosure, we were not able to investigate if firms are penalized by the market for designing SOPs explainable by rent-extraction theory. However, Bebchuk et al. (2002) noted that rent-extraction is, by its very nature, difficult to detect. In particular SOPs are a mechanism able to “camouflage” inefficient wealth transfers from shareholders to executive directors (see also Hall and Murphy 2003), hence they could be designed according to rent-extraction motives without influencing stock market value. Further research could investigate this topic in an institutional setting where the market does not have lagged (or incomplete) data on SOP design and it is possible, unlike in Italy, to understand when the full set of variables that comprises SOP design becomes public. Future research could also investigate SOP design in blockholder-dominated listed firms that operate in countries other than Italy to verify the level of generalization of our findings, as well as to check for differences between blockholder-dominated listed firms and widely-held listed firms that operate in the same institutional setting.

Despite these limitations, our findings have important policy-making implications, given the interest by numerous stakeholders, such as investors, regulators, unions, and politicians. Codes of best practice that support the use of share-based remuneration as an incentive mechanism for executive directors should pay attention to SOP design and recommend firms to avoid granting SOPs with short-term vesting periods and no lock-up (see also Bhagat and Romano 2009; European Corporate Governance Forum 2009; European Commission 2009). In addition, stock options whose beneficiaries are dominant blockholder should not be recommended. Thus, firms that design SOPs poorly should provide an explanation in their corporate governance report. This does not mean that directors who are dominant blockholder should be discriminated against, but that other compensation devices may be more suitable from an optimal contracting view. Besides, codes of best practices should foster minority shareholders' involvement in SOP design, by

recommending firms to introduce adequate slate mechanisms that allow minority shareholders' representation on boards (and remuneration committees). However, as firms may comply with recommendations only as a way to seek external legitimization, it becomes fundamental to enforce substantial, rather than formal, compliance (i.e. the real independence of directors). Last but not least, tax laws that wish to favour SOPs as incentive mechanisms should not give favourable treatment to stock options whose design is clearly not explainable by optimal contracting theory.

8 Conclusions

This paper has conducted an exploratory study on stock option design for executive directors in blockholder-dominated listed firms. By analysing how stock options granted to executive directors were designed, it has investigated which theory (optimal contracting theory or rent-extraction theory) is able to explain how stock options are used in Italian blockholder-dominated listed firms. Then, it has analysed the relationship between stock option design and board independence to investigate whether stock option design is influenced by board independence.

Empirical evidence on stock options granted to executive directors suggests that their design can hardly be explained by optimal contracting theory. Rent-extraction theory seems to provide a more powerful explanation of stock option design. The analysis of the relationship between stock option design and board independence shows that stock option designs explainable by rent-extraction theory are more likely to be granted by boards that are less independent from the dominant blockholder, when compared and contrasted with stock option designs explainable by optimal contracting theory. In particular, our results suggest that the minority shareholders' representation on boards of directors and remuneration committees is likely to have a positive and significant influence on stock option design.

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