Corporate Governance

Alignment vs rent-extraction effects of stock options. A conceptual model

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Abstract

Purpose – *This paper aims to develop a conceptual model that systematically interprets how key governance factors drive the alignment and the rent-extraction effects of executive stock options (SOs) as proxied by plan characteristics.*

Design/methodology/approach – *The authors draw on the review of 202 articles published in international academic journals. They collect data from library databases and by hand-searching and citation-tracking relevant papers on the topic. Moreover, the authors review and classify the studies as related with determinants or proxies of alignment and rent-extraction effects of SOs.*

Findings – *The conceptual model systematically interprets the results of the literature review and identifies the relationships between archetypes, driving factors and proxies of the rent/alignment effect of executive SOs. It highlights that, given ownership archetypes, effective (ineffective) governance practices drive the alignment (rent) aim of SOs as proxied by the optimal (non-optimal) plan design.*

Practical implications – *This paper supports compensation committees in selecting the SO characteristics that better attract investors and retain executives. Moreover, it guides future policy making interventions aiming at mitigating the rent-extraction effect of SOs.*

Originality/value – *The paper highlights that the governance determinants of SO aims can be effectively classified as archetypes or drivers of rent-extracting and aligning outcomes of these remuneration tools. Moreover, it offers a useful framework to guide future research efforts by providing a comprehensive interpretation of the relationships between ownership archetypes, driving factors and proxies of SO effects.*

Keywords *Alignment, Rent-extraction, Conceptual model, Executive stock options, Governance practices, Plan design*

Paper type *Conceptual paper*

1. Introduction

Over the past 30 years, a growing body of literature in the management and governance fields has explored how to maximize the shareholder value through managerial incentive compensation packages (Bryan *et al.*, 2000; Jensen and Murphy, 2004; Sanders, 2001; Wu, 2007). In particular, early interest around the topic can be traced back to the mid-1980s when stock options (SOs) became widely used to reward executives in US corporations (Conyon and Peck, 2001; Core *et al.*, 2003). At the time, these remuneration tools represented one-fifth of average CEO compensation, but their use increased in following years. This effect was especially true in the 1990s as the proportion of SOs reached one-third of total managerial compensation (Hall and Liebman, 1998; Murphy, 1999). Similar results were observed in 2000s when SOs became the largest single component of top management rewards (Dunford *et al.*, 2010; Hall and Murphy, 2002), and nearly half of all Fortune 100 companies offered SOs (Ericson, 2004; Hempel and Fay, 1994).

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The theoretical rationale of using the compensation tools under consideration is rooted in the agency framework and the conflicts of interests between managers and shareholders in US companies with dispersed ownership structures (Berle and Means, 1933). Indeed, in these settings, scholars highlight strong difficulties in managerial supervision and emphasize the high risk of misleading behaviour by company executives (Shleifer and Vishny, 1997) to the detriment of dispersed and weak shareholders (Bebchuk and Fried, 2006). The main argument in favour of SOs relies on the tenet that these compensation tools are powerful governance mechanisms that motivate managers towards shareholder value maximization (Zattoni and Minichilli, 2009; Zattoni, 2007) as they create a tight link between stock price performance and executive wealth. By providing managers with proprietary interests in the company (Murphy, 1999), SOs can ensure that executives have the appropriate incentives to improve shareholder wealth (Holmstrom and Costa, 1986; Ross, 1973). As a result, these compensation solutions are optimal contracting tools to mitigate the agency problems by producing an alignment effect of potentially conflicting goals of managers (agents) and shareholders (principals) (Jensen and Murphy, 1990).

Nevertheless, both in USA and Europe, the recent financial scandals (Terviö, 2008) have led scholars and practitioners to criticize executive SOs as dangerous tools in the hands of entrenched and opportunistic managers aiming at extracting firm value (Bebchuk and Fried, 2006; Bebchuk *et al.*, 2002). Indeed, in the past 15 years, SOs have been unable to align conflicting interests (Tosi *et al.*, 2003) even in European companies characterized by concentrated ownership structures (Melis *et al.*, 2012; Zattoni, 2007).

As a result, aside the classic optimal contracting approach claiming the beneficial alignment effect of SOs (Jensen and Meckling, 1976), an alternative view within the agency framework has emerged (i.e. the rent-extraction view). It highlights that SOs can improve the ability of managers to enrich themselves through the extraction of rents at the expenses of shareholders (Bebchuk and Fried, 2003, 2006). Indeed, governance literature suggests that despite the degree of ownership dispersion, executive SOs are potentially symptomatic of an extraction of private benefits (Barontini and Bozzi, 2009; Cheung *et al.*, 2005), as they can exacerbate both the classic and the second type agency problems (Bebchuk and Fried, 2006; Bebchuk *et al.*, 2002).

Literature exploring SOs through the theoretical lenses of optimal contracting and rent-extraction views is extensive. However, less attention has been paid to the relationship between determinants and proxies of both the alignment and the rent-extraction effects of SOs (Catuogno *et al.*, 2016; Zattoni, 2007). Stemming from the review and the classification of 202 studies published in international academic journals on the topic, our paper aims to fill this gap by examining:

- factors that lead to the alignment and the rent-extraction outcomes of executive SOs;
- how the aim of these compensation tools is affected by the above-mentioned factors; and
- how aligning and rent-extracting outcomes of executive SOs are measured.

We summarize our findings in a conceptual model showing that the determinants of SO aim can be distinguished in archetypes (ownership structures) and drivers (corporate governance practices), while the assessment of the alignment and rent-extraction aim of incentive compensation is proxied by SOs design (plan characteristics).

On the bases of these premises, our article should contribute to the advancement of both corporate governance research and practice in many ways. First, it provides a framework to guide future research efforts in the area by summarizing and discussing the connections between the key governance factors driving the effects of executive SOs and the related proxy measures proposed by the literature. In this sense, the conceptual model supports both scholars and practitioners in the corporate governance domain by identifying conditions and best practices for managerial rewarding. Indeed, the research has implications for compensation committee members, as it supports the selections of the SO characteristics that better attract investors and retain executives. Finally, the study guides future policy making interventions aiming at implementing more stringent governance practices to mitigate the rent-extraction effect of SOs.

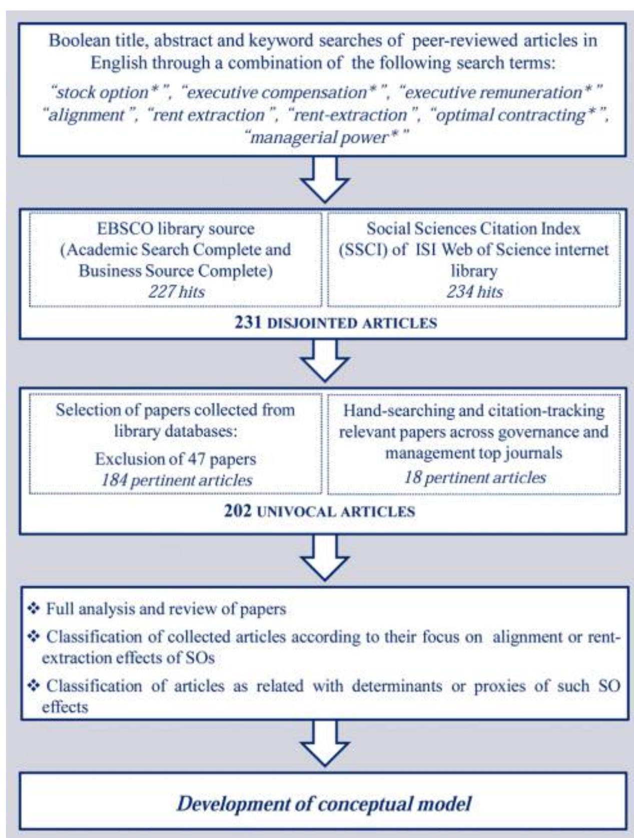
The rest of the paper is organized as follows. Section 2 describes the review process and the research methodology. Section 3 provides the review of the literature and presents the classifications of the studies. Section 4 proposes and discusses the conceptual model. Section 5 concludes and provides contributions and implications of the paper.

2. Review process and research methodology

To identify the literature on determinants and proxies of alignment and rent-extraction effects of executive SOs, and to interpret their connections, we have extracted all relevant articles on the topic by conducting Boolean title, abstract and keyword searches (Furrer *et al.*, 2008; Saggese *et al.*, 2015; Sarto *et al.*, 2014). In particular, we have used a combination of the terms "stock option*", "executive compensation*" and "executive remuneration*" with the keywords "alignment", "rent extraction", "rent-extraction", "optimal contracting*" and "managerial power*" to collect peer-reviewed articles in English (Figure 1). The rationale of focusing on this kind of publications, excluding conference proceedings, book reviews and chapters or unpublished works, relies on the belief that the review process plays as a quality control mechanism (Fernandez-Alles and Ramos-Rodríguez, 2009; Marsilio *et al.*, 2011).

We have extracted the articles on the topic under research from two search engines. Indeed, following prior studies, we have applied our strategy to both the Academic Search Complete and Business Source Complete library source (EBSCO) and the Social Sciences Citation Index (SSCI) database, incorporated in the ISI Web of Science internet library. We

Figure 1 Research design



have opted for these databases as the most commonly used in literature reviews (Dawson and Mussolino, 2014; Furrer *et al*., 2008; Saggese *et al*., 2015). We do not have imposed time constraints to collect all pertinent articles published in international academic journals until March 2016. This strategy has returned 461 hits (227 from EBSCO and 234 from SSCI), originating from 231 disjointed articles.

To ensure consistency with the topic under investigation, and to obtain the final sample, we have further selected the papers by examining their abstract. Taking into account the exclusion of 47 papers, this process has resulted in a list of 184 articles. However, following prior research (Rashman *et al*., 2009; Saggese *et al*., 2015), we have completed our collection by hand-searching and citation-tracking additional studies across governance and management top journals (18 articles). As a result, the final list of our collection consists of 202 articles.

At a later stage, we have fully analyzed and reviewed the papers. Specifically, we have classified the collected articles as focused on alignment or rent-extraction effects of SOs. In addition, within these clusters, we have further categorized the studies related with determinants or proxies of such SO effects. Stemming from these analyses, in the last step of our methodology, we have developed a conceptual model that systematically interprets the main results of the literature review.

3. Literature review and classification

To provide a comprehensive picture of the knowledge on the governance determinants and the proxies of alignment and rent-extraction effects of executive SOs, the following sections synthesize and discuss the findings of our literature review by presenting the classification of the studies on the topic.

3.1 Determinants of alignment and rent-extraction effects of stock options

The analysis of the 202 academic articles highlights that a number of factors affects the outcomes of executive SOs. Indeed, scholarly research suggests that both corporate ownership and corporate governance practices can drive the aim of SOs towards aligning or rent-extracting effects (Figure 2).

3.1.1 Alignment. According to the proponents of the optimal contracting view, firms seek to design the most efficient compensation packages to align the interests of managers and owners towards the shareholder value maximization (Essid, 2012; Holmstrom and Costa, 1986; Jensen and Murphy, 1990; Zattoni, 2007).

A number of studies within the realm of corporate governance have explored the alignment effect of SOs focusing on company ownership and its influence on managerial opportunism. In this respect, governance scholars have shown that, in widely held listed firms, executive SOs are an effective solution to protect investors from managerial expropriation and overcome the classic agency problem (Berle and Means, 1933; Jensen and Meckling, 1976). In this sense, equity incentives represent one of the most common tools that companies rely upon to limit the managers' misleading behaviour (Shleifer and Vishny, 1997). Indeed, by playing as governance mechanisms, SOs indirectly improve the supervision over executives and align managerial decisions to company interests (Chalmers *et al*., 2006) motivating managers to maximize the shareholders' value (Jensen and Murphy, 1990; Ross, 1973; Zattoni, 2007). This is especially true in Anglo-Saxon countries (Abernethy *et al*., 2015; Kuang and Qin, 2009). For example, Nyberg *et al*. (2010) report that the relationship between CEO and shareholder returns in the largest widely held US companies is symptomatic of the strong alignment effect between agents and owners. Mullins *et al*. (2014) also show that large shareholders with long-term investment orientation are more likely to use SOs to promote value creation and competitive advantages to the benefit of shareholders. The study authored by Wade *et al*. (1997) further supports these results, as it documents that, in companies with concentrated ownership, executive

Figure 2 Literature classification

Determinants of Alignment and Rent Extraction effects of SOs		CORPORATE OWNERSHIP	CORPORATE GOVERNANCE PRACTICES
	ALIGNMENT	Chalmers et al., 2006; Nyberg et al., 2010; Mullins et al., 2014; Wade et al., 1997; Kuang & Qin, 2009; Abernethy et al., 2015; Alcouffe & Alcouffe, 2000; Nagaoka, 2005.	Barontini & Bozzi, 2009; Melis et al. 2012; Chhaochharia & Grinstein, 2009; Barkema & Gomez-Mejia, 1998; Williamson, 1985; Sun et al., 2009; Sun & Cahan, 2009.
	RENT EXTRACTION	Bebchuk & Fried, 2003; 2006; Conyon et al., 2011; Goergen & Renneboog, 2011; Melis et al., 2012; Haid & Yurtoglu, 2006; Viscogliosi & Zattoni, 2008; Ozkan, 2011; Barca & Becht, 2001; Barontini & Bozzi, 2009; Zona, 2016; Masulis et al., 2009; Cheung et al., 2005; Basu et al., 2007; Su et al., 2010; Melis & Carta, 2010; Johnson & Tian, 2000; Chourou, 2010; Tinaikar, 2014; van Essen et al., 2012; Masulis et al., 2009.	Harjoto & Mullineaux, 2003; Fich & White, 2003; Hallock, 1997; Hill & Phan, 1991; Coles & Hesterly, 2000; Conyon & Peck, 1998; Cao et al., 2011; Core et al., 1999; Firth et al., 2007; Brick et al., 2006; Gong, 2011; Melis et al. 2012; Firth et al., 2007; O'Connor et al., 2006; Liu et al., 2014; Gueyie, 2001; Mcknight & Tomkins, 2004.

Proxies of Alignment and Rent Extraction effects of SOs		SO DESIGN
	ALIGNMENT	Bebchuk & Fried, 2006; Zattoni, 2007; Liljeblom et al., 2011; Milgrom & Roberts, 1992; Melis et al., 2012; Viscogliosi & Zattoni, 2008; Bebchuk et al., 2002; Sautner & Weber, 2006; Hall & Liebman, 1998; Johnson and Tian, 2000; Kuang and Qin, 2009.
	RENT EXTRACTION	Balsam & Miharjo, 2007; Bernhardt, 1999; Palepu & Healy, 2003; Fudenberg et al., 1990; Peng & Roell, 2008; Zattoni, 2007; Bebchuk et al., 2002; Hoi & Robin, 2004; Hall & Liebman 1998; Daily et al., 2003.

compensation is used for alignment purposes. Similar findings are provided by the empirical survey on the largest UK non-financial firms by Kuang and Qin (2009) who find that the use of performance-vested SOs is associated with greater interest alignment.

These conclusions can be extended to both European and Asian settings. For example, Alcouffe and Alcouffe (2000) show that SOs have been strongly used in French companies to align the conflicting interests of managers/employees and shareholders. Consistent with the incentive effect, Nagaoka (2005) also finds that SOs are often used in Japanese companies with concentrated ownership structures.

It is worth noting that, aside this feature, scholars suggest that the alignment effect of SOs is also influenced by a number of governance mechanisms. In this respect, a strong attention has been devoted to the relationship between executive SOs and governance characteristics to explain the cross-sectional differences in the level of managerial compensation (Barontini and Bozzi, 2009). A number of works in this tradition empirically document the correlation between the level of executive pay and several corporate governance variables, especially related to board characteristics. In particular, literature claims that board of directors should exercise an objective independent judgement on corporate affairs to protect the interests of outside shareholders. Scholars suggest that this circumstance is driven by the will of board members to maintain and even enhance their reputation, and occurs only in the presence of independent directors (Fama and Jensen, 1983). In these cases, SOs do not rely on opportunistic motivations. For example, Melis *et al.* (2012) show that in Italy, boards with higher proportion of independent directors are more likely to design SOs explainable by the optimal contracting theory. Similarly, Chhaochharia and Grinstein (2009) find that US companies experience a significant decrease of CEO compensation when the majority of directors are independent.

Aside board characteristics, literature on executive compensation also suggests that the aligning outcome of SOs can be affected by the presence and the functioning of remuneration committees. In this sense, scholars highlight that these committees hamper managerial misleading behaviour, as they limit the executives' chances to award themselves non-optimal pays (Barkema and Gomez-Mejia, 1998; Williamson, 1985). This effect is empowered by the appointment of independent directors to the committee. Indeed, Melis *et al.* (2012) report that, when independent directors are appointed to the remuneration committees, executive SOs are more likely to be designed according to the alignment aim. The same conclusions are drawn by the studies on compensation committee quality. In fact, both Sun *et al.* (2009) and Sun and Cahan (2009) show that earnings performance is positively associated with executive SOs, when the compensation committee quality increases.

3.1.2 Rent-extraction. Aside the alignment view, the rent-extraction perspective emphasizes the role of incentive plans as additional tools in the hands of powerful managers to opportunistically increase their pays (Bebchuk and Fried, 2006).

Scholars in this tradition claim that this phenomenon can occur in large firms with dispersed ownership structures when the strong managerial power fosters the opportunism of entrenched managers at the expenses of investors (Shleifer and Vishny, 1997). This is especially true when governance mechanisms do not work properly. Indeed, literature suggests that, in dispersed ownership structures, the board and the remuneration committee are likely to agree with powerful entrenched CEOs upon excessive pays to the detriment of company shareholders (Bebchuk and Fried, 2003; Conyon *et al.*, 2011; Goergen and Renneboog, 2011; Zona, 2016).

However, it is worth noting that a growing body of literature points out that the extraction of rents through executives SOs also occurs in concentrated ownership structures. In these contexts, the overlapping between directors/managers and owners allows blockholders to expropriate wealth (Bebchuk and Fried, 2006; van Essen *et al.*, 2012; Johnson and Tian, 2000), as large shareholders can influence the appointment of directors (Barca and Becht, 2001; Claessens *et al.*, 2002; Melis *et al.*, 2012). A comparable rent-extraction effect is documented in the presence of disproportional ownership devices (e.g. pyramidal structures, voting trusts, limited voting shares, dual-class shares, stock-interlocks) (Cuomo *et al.*, 2012; Saggese, 2013; Saggese *et al.*, 2015). In fact, finance scholars suggest that the diversion from the one-share–one-vote rule, due to these mechanisms, provides controlling owners with incentives to use SOs to draw private benefits to the detriment of minorities (Chourou, 2010; Haid and Yurtoglu, 2006; Tinaikar, 2014; Viscogliosi and Zattoni, 2008).

On the bases of these premises, the empirical research highlights that executive SOs are designed for extracting rents as the managerial power increases. In this sense, Ozkan (2011) reports that, in widely held UK firms, the relationship between performance and CEO pay weakens when managers are unaccountable to shareholders. Similarly, in companies with dual class shares, Masulis *et al.* (2009) find that CEO pay significantly increases as the divergence between insider control rights and cash flow rights raises.

The same conclusions apply to East Asian companies. Indeed, Cheung *et al.* (2005) show that, in Hong Kong, closely held firms, owner CEO and Chairman receive higher rewards compared with their peers. Similar results are reported by Basu *et al.* (2007) who find that executive remuneration and firm performance are negatively related in Japanese family business with concentrated ownership. In Chinese non-state-owned firms, Su *et al.* (2010) report comparable evidence, as they find that the high proportion of controlling owners increases the likelihood that managerial compensation is set to expropriate minority shareholders.

Scholarly research in this strand of literature has emphasized the same effects in European companies. In Germany, for example, Haid and Yurtoglu (2006) show that, in large firms, managerial compensation is affected by the wedge between cash-flow rights and voting-rights. In Italy, Melis and Carta (2010) provide evidence on a comparable effect, as they find that SOs are designed to extract rents when blockholders are appointed as executive directors. Also in concentrated family firms, some scholars report that SOs are used by entrenched and predatory family managers to extract rents

(Morck and Yeung, 2003; Morck *et al.*, 1988). For example, in Italian family companies with shareholders agreements, Barontini and Bozzi (2009) find both positive relationship between level of board pay and presence of company founder in the boardroom, and negative correlation between board excess compensation and firm future performance. Indeed, in this setting, the use of disproportional ownership devices is reflected in high managerial remuneration as a consequence of the divergence between control and cash-flow rights.

Similarly to the alignment perspective, governance literature has explored the rent-extraction effect of SOs focusing on corporate governance characteristics, especially in connection with board of directors. In this respect, some studies point out that interlocking directorates limit board independence, foster CEO entrenchment and result in higher executive remuneration (Harjoto and Mullineaux, 2003). In line with these findings, the empirical studies show that interlocking directorships positively affect the expropriation of wealth through the assignment of SOs to CEOs (Fich and White, 2003; Hallock, 1997).

The rent-extraction view explains the use of executive SOs also in connection to CEO tenure and when the CEO chairs the board (Mcknight and Tomkins, 2004). In this circumstance, the board is not able to monitor the CEO's activities, and therefore he/she can set his/her pays so as to expropriate investors (Coles and Hesterly, 2000; Conyon and Peck, 1998; Daily and Dalton, 1993; Jensen, 1993; Melis *et al.*, 2012). In line with this conclusion, the empirical evidence shows that CEO duality is positively related to executive compensation (Cao *et al.*, 2011; Core *et al.*, 1999; Firth *et al.*, 2007; Gueyie, 2001). In this case, tenured CEOs can influence board of directors to settle their pay according to their own preferences (Brick *et al.*, 2006; Cao *et al.*, 2011; Gong, 2011; Liu *et al.*, 2014). Consistently, literature reports that the relationship between CEO compensation and market stock returns decreases as tenure increases (Hill and Phan, 1991). Similar conclusions are drawn in respect to corporate disclosure as CEO duality strengthens the connection between value of SOs and fraudulent financial reporting associated to rent-extracting purposes (O'Connor *et al.*, 2006).

3.2 Proxies of alignment and rent-extraction effects of SOs

Governance literature on executive remuneration deems the strike price, the vesting period, the lockup period, the vesting conditions and the re-pricing as the most relevant elements of SO design (Johnson and Tian, 2000). However, as emerged by the analysis of papers in our collection, scholars interpret these constitutive components of executive remuneration as proxies for alignment and rent-extraction effects of SOs (Bebchuk *et al.*, 2002; Kuang and Qin, 2009) (Figure 2).

3.2.1 Alignment. Some articles in this tradition emphasize that a long-term perspective in executive remuneration is generally recommended by codes of best practice (Combined Code 2008; Italian Code of conduct 2006; French Code of best practices 2008; German Code of best practices 2009).

Supporting this view, the empirical evidence shows that at/out-of-the-money strike price results in the optimal executive SO design, as they provide managers with incentives to maximize the shareholder value (Bebchuk and Fried, 2006). Settling the strike price equal or higher than the market price of the underlying shares of stock at the assignment date provides executives with incentives to pursue shareholder value maximization to increase the market stock price and benefit from the emerging capital gain. In this perspective, literature shows that at/out-of-the-money options result in an efficient SO plan design and thus in the alignment of conflicting interests (Zattoni, 2007).

Similar conclusions are drawn by the research devoted to the vesting period. These studies find that the longer the vesting period, the higher the stock price is at the exercise date, leading to the alignment of managerial and shareholder interests. Indeed, literature suggests that SO beneficiaries are discouraged to behave myopically when they are not allowed to exercise options in the short-term (Liljeblom *et al.*, 2011; Milgrom and Roberts, 1992). Comparable arguments support the adoption of plans with lock-up conditions. Indeed, the presence of a lock-up period encourages the retention of SO plan beneficiaries and induces them to pursue medium and long-term company goals, discouraging their short-term opportunistic behaviour. Taking together these characteristics, the studies in the strand under investigation suggest that vesting and lock-up periods longer than 3 years are symptomatic of an alignment effect (Melis *et al.*, 2012; Viscogliosi and Zattoni, 2008).

Similar results in terms of SO outcomes are also provided by scholarly research reporting that the optimal executive plan design depends on the presence of vesting conditions (i.e. indexed strike price) (Bebchuk *et al.*, 2002; Sautner and Weber, 2006). In this respect, the empirical evidence highlights that indexed exercise prices result in an alignment effect, as they increase the likelihood to reward managers when the stock performance is connected to their own outcomes (Hall and Liebman, 1998; Johnson and Tian, 2000; Kuang and Qin, 2009).

3.2.2 Rent-extraction. Studies in this strand of literature show that when executives receive options with a strike price lower than the price of the underlining stocks at the assignment date, they have no incentives to increase the shareholder wealth, as they have already been rewarded by the capital gain (Bebchuk and Fried, 2005; Zattoni, 2007). In this perspective, in-the-money options may suggest the rent extraction. Indeed, literature in this tradition reports that the intrinsic value of in-the-money options is inversely related to voluntary executive turnover and provides evidence on the rent-extraction effect of SOs (Balsam and Miharjo, 2007).

At the same time, other scholars highlight that a plan design characterized by a short-term vesting period can harm shareholders, as they motivate managers to take myopic decisions that reduce medium-long term value.

Similar conclusions are drawn for the lock-up period (Arena *et al.*, 2016; Bernhardt, 1999; Healy and Palepu, 2002; European Corporate Governance Forum, 2009; Fudenberg *et al.*, 1990; Peng and Roell, 2008; Zattoni, 2007). Indeed, some authors in this tradition interpret the lack of any lock-up period for beneficiaries in connection with rent-extractive effects (Bebchuk *et al.*, 2002; Hoi and Robin, 2004). In this perspective, the beneficiaries are encouraged to behave myopically when they are allowed to exercise the options and sell the shares in the short term (Jensen and Murphy, 2004). Both the length of the vesting and the presence of the lock-up period matter in defining whether the SO plan design is likely to exacerbate the rent-extraction aim.

Based on the empirical studies that have been provided by the literature, the absence of vesting conditions like the market indexed strike price is consistent with the rent-extraction perspective, as managers are rewarded regardless their contribution to increase the firm market performance (Bebchuk *et al.*, 2002; Hall and Liebman, 1998).

As emerged by our literature analysis, governance scholars document comparable outcomes also in connection to the re-pricing. It consists in the settlement of a new strike price when the market stock value drops beyond the original exercise price. As a consequences, it provides executives with unlimited gains when the market share price increases, and limited losses if the stock price decreases (Arena *et al.*, 2016). Indeed, the component of SO design under consideration is associated with a decline of financial performance detrimental for shareholders, thus supporting the rent-extraction effect hypothesis of these compensation tools (Daily *et al.*, 2003).

4. The development of a conceptual model

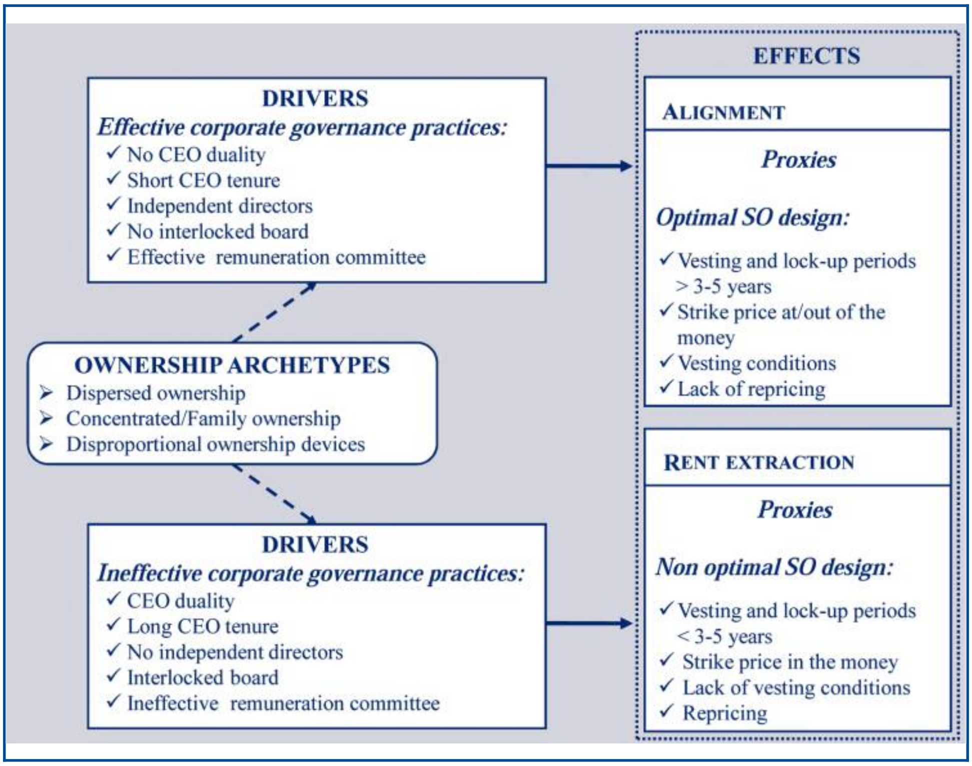
At a first glance, our systematic literature review shows that research exploring the alignment and rent extraction effect of SOs can be distinguished in studies investigating the determinants (ownership structure and governance practices) and those analyzing the proxies for these outcomes. However, a deeper examination of our collection highlights that the articles linking the alignment and rent-extraction effects of SOs to corporate ownership and practices are not univocal (Barontini and Bozzi, 2009; Basu *et al.*, 2007; Cheung *et al.*, 2005; Daily *et al.*, 2003; Kuang and Qin, 2009). Indeed, concerning the ownership structures, all articles in our list consider them as settings where exploring the aim of SOs. Thereby, we can label ownership structures (dispersed, concentrated/family ownership, presence of disproportional ownership devices) as archetypes of SO aim that play as first antecedent conditions of executive SOs but do not directly affect their aim. Differently, when looking at corporate governance practices, we can note that they directly affect the purpose behind these compensation tools, given a certain ownership structure. Indeed, our analysis shows that 25.60 per cent of articles investigate governance practices in specific ownership structure (Alcouffe and Alcouffe, 2000; Conyon and Murphy, 2000; Conyon, 2014; Tiscini and Raoli, 2013). Therefore, they can be considered as drivers of SO aim distinguishing between effective and ineffective governance practices. In this sense, when governance practices are effective, in terms of no CEO duality, short CEO tenure, independent directors, no interlocked board and effective remuneration committee, they drive to the alignment effect of executive SOs. Conversely, when governance practices are ineffective in terms of CEO duality, long CEO tenure, no independent directors, interlocked board and ineffective remuneration committee, they drive the rent-extraction effect (Chalmers *et al.*, 2006; Chhaochharia and Grinstein, 2009; Coles and Hesterly, 2000; Fich and White, 2003; Hallock, 1997; Hill and Phan, 1991).

The following example mixes together the above-mentioned consideration on archetypes and drivers of SO aim. Indeed, within dispersed ownership structures, one would expect that SOs are used to align the conflicting interests of managers and shareholders. However, this cannot be true if compensation committee is not independent and cooperates with CEO agreeing on excessive rewards by settling on contracts that are not consistent with shareholder wealth (Conyon *et al.*, 2011; Core *et al.*, 1999). In these circumstances, the unfulfilled promise of aligning conflicting interests makes SOs as tools in the hands of strong managers aimed to enrich themselves to the detriment of shareholders (Tosi *et al.*, 2003; Yermack, 1997). In the same vein, in the presence of concentrated ownership structures, one would suppose that SOs granted to managers already aligned with controlling owners aim to extract rents from minorities. Nevertheless, this prediction fails when directors are independent from corporate insiders, as they are able to exercise an objective supervision on executive remuneration and are more likely to design SOs explainable by the optimal contracting theory (Conyon and Peck, 1998; Core and Guay, 1999; Melis *et al.*, 2012; Yermack, 1995).

However, our literature review shows that the alignment and the rent-extraction effects of SOs cannot be merely captured by looking at archetypes and driving factors. In this sense, they should be measured by the main elements of SOs design. Indeed, our analysis finds that, in the 5.79 per cent of papers of our collection, ownership structures are investigated in combination with governance characteristics and SO plan design, and it further reveals that the latter are used as proxy measures for the aim of SOs (Carter and Lynch, 2001; Hoi and Robin, 2004; Johnson and Tian, 2000; Kuang and Qin, 2009; Qin, 2012).

Overall, literature suggests that alignment outcomes can be appraised through the optimal SO plan design as measured by vesting and lock-up periods longer than 3 years, strike prices at/out-of the money, presence of vesting conditions and lack of re-pricing. Conversely, the model emphasizes that the rent-extraction aim can be measured by non-optimal SO plan design in terms of vesting and lock-up periods shorter than 3 years, strike prices in-the-money, lack of vesting conditions and presence of re-pricing (Balsam and Miharjo, 2007; Bebchuk *et al.*, 2002; Daily *et al.*, 2003; Melis *et al.*, 2012; Sautner and Weber, 2006; Viscogliosi and Zattoni, 2008).

Figure 3 Conceptual model



Stemming from the results of our literature analysis, we propose a conceptual model that systematically interprets how archetypes and drivers affect the alignment or the rent-extraction effect of SOs as proxied by SO plan design (Figure 3).

More specifically, our model highlights that, *given ownership archetypes*:

- *effective governance practices drive the alignment effect as proxied by optimal SO plan design*; and
- *ineffective governance practices drive the rent-extraction effect as proxied by non-optimal SO plan design*.

Therefore, it contends that archetypes, drivers and proxies can be interpreted as complementary elements of executive SO effects.

5. Concluding remarks

Executive SOs play an important role in mitigating the conflicting interests of managers and shareholders. As highlighted in our analysis of the literature, studies have mainly explored the effects of these equity incentive tools in terms of alignment (Holmstrom and Costa, 1986; Jensen and Murphy, 1990; Zattoni and Minichilli, 2009) and rent-extraction (Bebchuk and Fried, 2003, 2006; Bebchuk *et al.*, 2002; Melis *et al.*, 2012). Nevertheless, limited attention has been paid to the factors that drive these outcomes well as to the way they are measured (Catuogno *et al.*, 2016; Zattoni, 2007).

On the basis of these premises, the paper aims to develop a conceptual model that systematically interprets how key governance factors drive the alignment and rent-extraction effects of executive SOs as proxied by plan characteristics. In particular, by drawing on the review and the classification of 202 articles published in international academic journals, it offers a theoretical model showing the interaction among archetypes (ownership structures), drivers (corporate governance practices) and proxies (SO plan design) of alignment and rent-extraction effects of executive SOs.

The article provides contributions for both governance scholars and practitioners. With regard to scholars, the conceptual model identifies the governance determinants of alignment and rent-extraction outcomes of SOs and the related proxies. Moreover, it highlights that the determinants of SO effects, investigated by previous literature without distinction, can be effectively classified as archetypes or drivers. While the latter have an immediate impact on the aim of incentive remuneration, the effects of former are led by drivers. Furthermore, by comprehensively interpreting the relationships between ownership archetypes, driving factors and proxies of SO effects, the paper offers a useful framework to guide future research efforts on executive SOs. As for practitioners, the research supports the identification of preferable conditions for managerial compensation. First, the model contributes to understand the better proxies to reduce wealth expropriation from minority stakeholder. Second, it helps remuneration committees to appreciate the best practices for optimal SO design in terms of investor attraction and executive retention. Third, it supports policy making interventions aiming to promote more stringent governance procedures to hinder the rent-extraction effect of SOs.

Despite these contributions, our conceptual model is by necessity a simplification of a set of complex phenomena. While this complexity represents the limitation of our study, it has some implications for future research. In this sense, there would be further research potential in identifying additional driving factors or different proxy measures of SO effects. Finally, a promising avenue for future research would be to examine whether the above-cited driving factors are substitutes or complements in affecting the SOs' effects.

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