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# Exploring the relation between family ownership and incentive stock options: The contingency of family leadership, board monitoring and financial crisis

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ABSTRACT

This paper investigates the curvilinear relationship between family ownership and the incentive aim of stock options, considering the effect of family leadership, board monitoring and financial distress. Using Italy as a study setting because of the large number of family businesses, we categorize incentive and rent-extractive stock option plans by their design features. We assume that the co-existence of family and non-family managers expose family firms to underexplored agency problems between owners and managers, and posit that stock options help to mitigate these problems. Our logit model reveals the existence of an inverted U-shaped relationship between family ownership and the incentive aim of stock options that becomes a U-shaped one in family-led firms. We also find that family firms are more likely to grant incentive stock options at low to intermediate level of family ownership in presence of effective board monitoring and during the global financial crisis. This paper contributes to the existing literature on corporate governance and accounting in family businesses, and also has practical significance for investors, regulators and policy-makers.

## 1. Introduction

According to classical agency theory (Berle & Means, 1932; Coase, 1937; Jensen and Meckling, 1976; Jensen et al., 2004), stock option plans (SOPs) are efficient compensation tools designed to align the interests of managers and owners, and maximize shareholder value (Zattoni, 2007). They can be used to attract, retain and motivate executives, including chief executive officers (CEOs), and managers (Zattoni & Minichilli, 2009). Recent financial scandals, however, show that there is a problem with the use of stock options to provide incentives to executives. In particular, SOPs have often been too generous and enabled managerial extraction of firm value (Bebchuk, Fried, & Walker, 2002; Bebchuk & Fried, 2006). Anecdotal evidence suggests that the ownership structure may be a potential determinant of the SOPs' aim, but this has received little attention in the literature (e.g. Aboody & Kasznik, 2008; Cadman et al., 2010).

Previous studies have analyzed whether and how the aim of SOPs differs with dispersed or concentrated ownership. These have mostly been conducted in the Anglo-Saxon context but more recently have also considered European countries (Bebchuk et al., 2002; Carrasco-Hernandez & Sánchez -Marín, 2007; Core, Guay, & Larcker, 2003; Melis, Carta, & Gaia, 2012). To date, however, this issue has not been studied in family businesses and very few studies have focused on the characteristics of and reasons for SOPs in family firms.

This paper investigates the relationship between family ownership and the incentive aim of stock options. Previous studies showed that family managers use SOPs as tools to extract rents, especially when their wealth is already tied to the value of the firm (Basu, Hwang, Mitsudome, & Weintrop, 2007; Morck & Yeung, 2003). Some research has reported that family firms with a higher proportion of family managers use SOPs to provide directors with sub-optimal compensation (Barontini & Bozzi, 2011; Melis et al., 2012). Studies have not, however, supported the hypothesis that family ownership affects the adoption of SOPs (Zattoni & Minichilli, 2009). One piece of evidence showed that awarding excessive compensation to family managers did not result in poorer firm performance, implying that SOPs are not exclusively used to extract rents (Tiscini & Raoli, 2013). Findings have therefore drawn an inconclusive picture of the use of SOPs in family firms.

To address this issue, one study recently examined the aim of SOPs

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in family firms (Arena, Catuogno, Cirillo, & Pennacchio, 2016). The authors recognized that one of the drawbacks of previous studies is that they considered family firms as a sub-set of concentrated ownership structures. In consequence, SOPs have been considered a tool to extract rent rather than as a governance mechanism to solve agency conflicts. Hence, family firms may have agency problems between family and non-family owners that can be mitigated through the use of SOPs (Arena et al., 2016). The present paper extends this analysis on several fronts.

Unlike previous studies, which have focused on the agency conflicts between majority and minority shareholders (type II agency problems) (Villalonga & Amit, 2006), this paper looks at the type of conflicts that arise between owners and managers (type I agency problems) and explores the non-linear relationship between family ownership and the incentive aim of SOPs. It is questionable whether interests always overlap between owners and managers in family firms. Indeed, family firms may even experience more sources of agency conflicts than non-family firms. Previous studies have suggested that the heterogeneous ownership structure and the coexistence of family and non-family managers can be an additional source of agency conflicts because of higher information asymmetries, limited ability of the principal to evaluate the behavior of the agent and difficulties in monitoring transactions in which the owners are not directly involved (Chua, Chrisman, & Sharma, 2003). Recent research also shows that family managers may also show destructive agent behaviors, stemming from opportunism and asymmetric altruism (Madison, Holt, Kellermanns, & Ranft, 2016).

Similarly to previous studies that have found nonlinear relationships in family businesses (Anderson & Reeb, 2003; Schulze, Lubatkin, & Dino, 2003; Sciascia, Mazzola, Astrachan, & Pieper, 2012), we argue that different levels of family interests in the ownership of the firm shape the degree of agency conflicts between owners and managers and affect the aim of SOPs. We also extend the inferences of previous investigations (Arena et al., 2016) by considering the effects of several internal and external contingencies. First, we analyze the nature of the firm's leadership, i.e., whether the CEO is a member of the controlling family (Miller, Minichilli, & Corbetta, 2013) as a factor *internal to the family* that may affect the behavior of family firms. Family-led firms may experience fewer agency conflicts because the presence of a family CEO can guarantee closer convergence of owners' and managers' interests (Minichilli, Corbetta, & MacMillan, 2010). Family leadership might therefore be a central dimension in explaining the non-linear relationship between family ownership and the incentive aim of SOPs.

Second, we analyze the influence of effective board monitoring, as a governance mechanism *external to the family* but *internal to the firm*. Agency theory states that the board of directors plays a pivotal role in constraining opportunistic managerial behavior (Jensen & Meckling, 1976). In line with previous studies (Zona & Zattoni, 2007), we maintain that both board composition (e.g., independence) and processes (e.g., frequency and duration of board meetings) have an effect on the design of incentive SOPs.

Finally, we explore recent developments in the literature (e.g. Minichilli, Brogi, & Calabrò, 2016) suggesting that the global financial crisis provides useful evidence of how family firms exhibit different behaviors as a result of factors that are fully *external to the firm*. The existing relationship between family firm status and firm behavior might, for example, be moderated by crisis conditions. Scholars have investigated family firm performance during the recent crisis (Arrondo-García, Fernández-Méndez, & Menéndez-Requejo, 2016; Minichilli et al., 2016), but we still lack a picture of how family firms employ SOPs during challenging periods such as these.

The Italian stock market is characterized by highly concentrated ownership structures (Zattoni, 1999), so we analyze a sample of 282 active SOPs issued by Italian listed firms during the period 2008–2012. Unlike previous studies on SOPs, our sample is designed to be representative of the plans issued by Italian firms both *before* and *during* the global financial crisis. We identify incentive and non-incentive SOPs using a cluster analysis, which relies on several characteristics of SOP design (e.g., vesting period, lock-up, strike price, and market index).

The paper makes several contributions to the literature on corporate governance and accounting in family businesses. First, contrasting and complementing the evidence that family firms tend not to use SOPs to provide incentives (e.g., Melis et al., 2012; Zattoni & Minichilli, 2009), we contribute to governance research by showing that SOPs are used to help family firms to pursue shareholder value creation objectives, rather than merely to extract rents. In addition, our paper provides evidence on the relevance of board processes, above the board structure, for effective board monitoring in family firms.

Second, we contribute to the recent field of research that emphasizes the importance of contingencies on family firm behavior (Arrondo-García et al., 2016; Lohe & Calabrò, 2017; Miller et al., 2013; Miller, Breton Miller, Minichilli, Corbetta, & Pittino, 2014; Minichilli et al., 2010; Minichilli et al., 2016). In particular, we contextualize the use of SOPs to different degrees of family ownership and explore the role played by family CEOs, board monitoring and global financial crisis. We show that the aim of SOPs in family firms can be explained through agency theory. However, in some specific circumstances, behavioral agency considerations can help explain why family firms issue incentive SOPs.

## 2. Theoretical framework and hypotheses development

### 2.1. The use of SOPs in family firms

Far more studies are now considering the aim of SOPs. Several have examined whether and how the ownership structure affects the aim of SOPs (Aboody & Kasznik 2008; Bebchuk et al., 2002; Cadman et al., 2010; Catuogno, Saggese, Sarto, & Viganò, 2015; Core et al., 2003; Melis et al., 2012). At the most basic level, stock options are a governance mechanism to alleviate the conflicts that can arise in any organization in which the owners (the 'principals') ask managers (the 'agents') to make decisions on their behalf (Berle & Means, 1932; Coase, 1937; Jensen & Meckling, 1976; Jensen, Murphy, & Wruck, 2004). Agency theory asserts that contracts are incomplete, because of self-interest, bounded rationality, risk aversion and goal conflicts among members. This can result in various agency threats, such as moral hazard, hold-up and adverse selection (Alchian & Woodward, 1988). These threats provide an incentive for principals to offer stock-based compensation to agents, in an effort to monitor their behavior and ensure that they pursue wealth maximization. The use of stock options to solve agency problems has been described as the optimal contracting approach (Bebchuk & Fried, 2003). However, the presence of controlling shareholders is an important reason to question whether this is so. The effect may be different when ownership is concentrated, because the owners then have both the incentive and the power to scrutinize agents' discretionary choices and risk-related decisions, limiting the consumption of perquisites and misallocation of resources (Amihud & Lev, 1999). As a result, closely-controlled firms may not necessarily face agency problems between managers and dispersed owners, and SOPs may therefore not serve as instruments to align conflicting interests (Shleifer & Vishny, 1997; Johnson, Boone, Breach, & Friedman, 2000). Under these circumstances, SOPs may be opportunistically used by controlling shareholders to extract value from the company at the expense of small investors (Zattoni & Minichilli, 2009). This 'rent extraction' view therefore challenges the optimal contracting view (Fried, 2005, 2006;), suggesting that managers may receive pay in excess of the optimal amount for shareholders (Bebchuk et al., 2002; Cheung, Stouraitis, & Wong, 2005; Jensen & Murphy, 1990).

What can be inferred about the aim of SOPs in family firms? One strand of literature tends to consider family firms as a specific case of concentrated ownership structures. The research maintains that SOPs are more likely to be explained by rent extraction theory because family