

How to Pay Nonfamily Managers in Large Family Firms: A Principal–Agent Model

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Abstract

A large number of family firms employ nonfamily managers. This article analyzes the optimal compensation contracts of nonfamily managers employed by family firms using principal–agent analysis. The model shows that the contracts should have low incentive levels in terms of short-term performance measures. This finding is moderated by nonfamily managers' responsiveness to incentives, their level of risk aversion, and measurement errors of effort related to short-term performance. The model allows a comparison between the contracts of family and nonfamily managers. This comparison shows that the contracts of family managers should include relatively greater incentives in terms of short-term performance measures. A number of propositions regarding the compensation of nonfamily managers employed by family firms are formulated. The implications of the model for family business research and practice are discussed.

Keywords

nonfamily managers, executive pay, principal–agent model, incentives, performance pay

In his classic article “On the folly of rewarding A, while hoping for B,” Steven Kerr (1995) writes that “we hope for long-term growth . . . , but we often reward quarterly earnings” (p. 14) and cites this as a common management reward mistake. Accounting-based bonus pay has been particularly criticized as short-term incentive. This problem is of particular concern for family business owners, who often regard their firms as long-term investments (Le Breton-Miller & Miller, 2006) and who need to pay nonfamily managers who do not necessarily share this view.

Most family firms employ nonfamily executives. Nonfamily executives occupy 80% of all board seats of large U.S. family firms, and nonfamily CEOs manage about 55% of these firms (Anderson & Reeb, 2003, 2004). Klein (2000) reports that 56% of all German family firms have at least one nonfamily member on their top management teams. Klein (2000) also finds that the importance of nonfamily managers increases with the size of the firm. When family firms expand, the family often has difficulty providing sufficient

management talent. Furthermore, there are a number of other reasons that a firm might employ a nonfamily manager, including added knowledge, lack of a family successor, or family conflict mediation (Dyer, 1989; Schein, 1968). Most of these reasons are linked to whatever human resource limitations the owning family experiences (e.g., Bennedsen, Nielsen, Pérez-González, & Wolfenzon, 2007; Burkart, Panuzi, & Shleifer, 2003; Chirico, 2008; Perez-Gonzales, 2006). Nonfamily managers have a difficult job. The family often has a lot of power and can easily replace the manager. Furthermore, such managers' job performance is often evaluated by

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less senior executives who are members of the business-owning family.

Problems with nonfamily managers arise when their preferences and time horizons differ from those of the owning family, as is likely to be the case (Chua, Chrisman, & Sharma, 2003; Dyer, 1989, Schein, 1968, 1983). In a flexible labor market,¹ the wages of a manager depend on his or her short-term performance, which is determined by short-term measures such as increases in operating efficiency, sales, or shareholder returns (Antia, Pantzalis, & Park, 2010; Campbell & Marino, 1994; Narayanan, 1985). A nonfamily manager who wants to increase her wages or move to a new employer needs to score high in these areas. The personal goals of the nonfamily manager might differ strongly from those of the family. The goals of the business-owning family are often long-term (Bertrand & Schoar, 2006; Block, 2010; James, 1999; Le Breton-Miller & Miller, 2006) and may differ from those of nonfamily firms (Guzzo & Abbott, 1990; Harris, Martinez, & Ward, 1994; Lee & Rogoff, 1996; Tagiuri & Davis, 1992). Conflicts between a family and a nonfamily manager are thus likely to occur. As an example, consider an investment in a promising technology project. The family sees the investment as a chance to gain lasting competitive advantage. The nonfamily manager, however, might worry about the R&D expenditures incurred in the short-term (Block, in press).

This study deals with such situations and determines the optimal compensation contract for a nonfamily manager when his or her interests diverge from those of the business-owning family. The focus is on the optimal level of short-term incentives (such as bonus payments for an increase in accounting performance, e.g., return on assets or return on equity). The following research questions are analyzed: What is the optimal level of short-term incentive pay for nonfamily managers working at family firms? What individual and environmental factors play a role when determining this optimal level? How does the optimal contract of a nonfamily manager differ from that of a family manager (working at a family firm)?

To analyze these research questions, I extend the principal-agent multitask model of Holmström and Milgrom (1991). It is assumed that the business-owning family has a long-term horizon and that its main goal is to transfer the firm to the next generation. The manager, however, wants to demonstrate his or her management skills to executives in the outside market and therefore

wants to produce strong short-term results. The optimal compensation contract is determined, and the optimal share of short-term incentives is calculated. The model's main results are formulated in six propositions. It is found that (a) the optimal sensitivity of pay to short-term performance decreases with the executive's willingness to send a signal of strong short-term performance to the market for executives; (b) the level of this *signaling discount* depends on the degree of error in measuring short-term performance, the executive's risk aversion, and the executive's responsiveness to incentives. These results suggest that it can be advantageous to offer a fixed-wage contract to a nonfamily executive (Frey & Osterloh, 2005) or to rely on subjective performance evaluations or voluntary bonus payments² (Baker, Gibbons, & Murphy, 1994; Bushman et al., 1996; MacLeod, 2007; MacLeod & Malcomson, 1989).

The remainder of the article is organized as follows. The next section summarizes the relevant literature concerning nonfamily managers working at family firms, executive pay at family firms, principal-agent models of executive pay and managerial myopia. This is followed by a section that explains the principal-agent model and the specific family firm context to which it applies. The subsequent section analyzes the model, presents numerical examples for illustration purposes, and develops testable propositions regarding the optimal compensation contract for a nonfamily manager working at a family firm. This is followed by a section that discusses the limitations of the model and of principal-agent analysis in general. The penultimate section discusses the implications for family business research and avenues for further empirical research. The final section concludes.

Literature Review

Four strands of literature are particularly important in the context of this article: (a) research concerning differences between family and nonfamily managers, (b) empirical research on CEO pay at family firms, (c) principal-agent models of executive compensation, and (d) theoretical models analyzing the problem of managerial myopia.

Nonfamily Managers in Family Firms

The employment of nonfamily managers helps family firms to grow their knowledge base. It increases a family

firm's ability (and flexibility) to identify and pursue profitable business opportunities (Chirico, 2008). Given the importance of nonfamily managers for the growth and survival of family firms, it is surprising that there is relatively little (empirical) research on the role of nonfamily managers in family firms (Chua et al., 2003). Here, I will summarize what is known about the differences between family and nonfamily managers (see also Blumentritt, Keyt, & Astrachan, 2007; Chirico, 2008; Klein & Bell, 2007; Sonfield & Lussier, 2009). Founders or family managers often have a particular vision of their product. They often make their decisions intuitively, their power is based on ownership, and they try to motivate their employees via charismatic behavior (Dyer, 1989; Schein, 1983). Nonfamily managers, in contrast, often make decisions based on logic and rational analysis rather than intuition. Their management style is often impersonal (Dyer, 1989; Schein, 1983). The differences between the two types of managers can be explained by their organizational and occupational experiences. Family managers have grown up in the organization and have learned skills and practices that are specific to their organization. They have little experience outside their own firm. Their view of the firm is strongly influenced by what their family thinks is good for the firm. Their peer group consists of family members, employees at the firm, and managers of other family firms. Nonfamily managers are socialized differently: After graduation, they often go to work for large firms, change jobs frequently, and gain a broad range of organizational experiences. Generally, during their management education, they received training that was formal and generic. Their peer group consists of their fellow students working at other (often large) organizations or at consultancy firms (Dyer, 1989; Schein, 1983). They are connected to their peers through professional or university alumni associations. Extending the work of Dyer (1989), Hall and Nordqvist (2008) propose that nonfamily managers need a deep and profound understanding of the family's goals and the significance for them of being in business if they are to manage a family firm effectively. Formal training alone is not sufficient to ensure that one manages a family firm in an effective way.

Although the cultural differences between family and nonfamily managers do not apply to every family firm and may change as more family managers are educated at business schools, the main point remains valid: Family managers and nonfamily managers are socialized in

a different way and are likely to have different goals and views of a firm. This different socialization experience may have an influence on the firm's strategy (Harris et al., 1994). Block (2010), for example, shows that family management moderates the relationship between firm profitability and the likelihood of downsizing: Poor profitability is less likely to lead to downsizing with family managers than with nonfamily managers. This finding can be interpreted as a sign that family managers have a stronger long-term orientation than nonfamily managers. In a different study, Sonfield and Lussier (2009) show that the higher percentage of nonfamily managers present in the management is accompanied by an *increase* in the use of outside assistance, sophisticated financial management techniques, and the tendency to consider initial public offerings (IPOs).

Executive Pay in Family Firms

There is a wealth of empirical research on CEO pay. I summarize only studies that involve executive pay at family firms. This research addresses (a) studies concerning the *level* of CEO pay within family firms and (b) studies concerning the *structure* of CEO pay within family firms.

Gomez-Mejia, Larraza-Kintana, and Makri, (2003) and McConaughy (2000) find that family CEOs receive lower compensation than nonfamily CEOs working in family firms. This effect becomes stronger with an increase in family ownership concentration (Gomez-Mejia et al., 2003). Combs, Penney, Crook, and Short (2010), however, show that these findings only hold when family members other than the CEO are represented on the management team or on the board. In fact, if the CEO is the only family member represented, compensation is found to be higher than that offered to nonfamily CEOs. There is more counterevidence: Holderness and Sheehan (1988) demonstrate that managers in publicly held corporations who are also majority shareholders (defined as shareholders with more than 50% of common stock) have higher salaries than managers in more diffusely held firms. Similarly, using a sample of listed Italian firms, Barontini and Bozzi (in press) find that firms with a high proportion of family members on the board pay higher board compensation than do other firms, suggesting that executive pay is used as a mechanism for rent extraction (Morck & Yeung, 2003). In summary, it is an open question whether family CEOs receive higher or lower salaries relative to nonfamily CEOs.

Regarding the structure of CEO pay, Chrisman, Chua, Kellermanns, and Chang (2007) find that (a) family executives receive incentive compensation, and that (b) it has a positive effect on performance, suggesting that family executives also exhibit agency behavior. However, McConaughy (2000) discovers that family CEOs receive less incentive-based pay than do nonfamily CEOs working in family firms, a finding that he terms the *family incentive alignment hypothesis*. The results of Gomez-Mejia et al. (2003) are similar. The greater the percentage of stock owned by institutional investors, who are assumed to vigilantly protect their interests, the lower is the share of long-term income in the total compensation of a family CEO. It is argued that financial investors know about the family incentive alignment hypothesis and thus push for a lower share of incentive pay to be included in the CEO's compensation package. Gomez-Mejia et al. (2003) also find that the positive effect of R&D intensity on the share of long-term income in CEO pay is stronger for nonfamily CEOs than for family CEOs. They argue that a nonfamily CEO wants to be compensated for the increased ambiguity and uncertainty associated with a higher level of R&D intensity. Using a sample of Spanish family firms, Cruz, Gómez-Mejia, and Becerra (2010) show that the share of incentive pay in top management team contracts decreases with the CEO's perceptions regarding the level of benevolence of the top management team. Finally, making a distinction between stock-based and accounting-based incentive pay, Achleitner, Rapp, Schaller, and Wolff (2010) find that family firms rely less on stock-based and more on accounting-based incentive pay than do nonfamily firms.

Principal-Agent Models on Executive Pay

Theoretical work on executive compensation draws mainly on principal-agent models and contract theory (e.g., Ross, 1973). Hart and Holmström (1987) and Prendergast (1999) provide surveys of this literature. Because this study uses a multitask principal-agent model, the literature review is limited to studies using this type of model. Holmström and Milgrom (1991) were the first to analyze the optimal provision of incentives in a multitask environment. They show the existence of important interaction effects between the incentives for one task and those for another task. With multiple tasks, incentive pay not only allocates risk and

incentivizes hard work but also distributes the agent's attention between his or her various tasks. If one task can be observed and the other cannot, then the agent will focus her efforts on the former, which may not be in the principal's interest. This central result has been used to explain why incentive contracts are observed less frequently than one-dimensional principal-agent models predict. The costs of this reallocation of efforts are higher than the benefits obtained from the incentives. In line with this argument, MacLeod and Malcomson (1989) and Baker et al. (1994) suggest that if some aspects of the agent's performance cannot be contracted on, it is better to rely on subjective performance evaluations or voluntary bonus payments. Empirically, Brown (1990) has shown that incentive pay is less likely in a job with a variety of different duties than in a job with a narrower set of duties. In a similar vein, MacLeod and Parent (1999) find that jobs with high-powered incentives involve greater worker autonomy and fewer tasks than do hourly paid or salary jobs.

With regard to CEO compensation, Bushman et al. (1996) test the predictions of MacLeod and Malcomson (1989) and Baker et al. (1994) and find that the importance of subjective performance pay increases with the firm's growth opportunities and product time horizon. Similarly, Ittner, Larcker, and Rajan (1997) show that the use of nonfinancial measures in CEO bonus contracts increases when the firm follows an innovation-oriented strategy, improves with the adoption of quality initiatives, and is correlated with the level of noise in financial measures.

Principal-Agent Models on Managerial Myopia

There is a considerable body of literature on managerial myopia and its causes (Laverty, 1996). This review is limited to explanations of managerial myopia that involve managerial opportunism. Narayanan (1985) finds that if an executive has private information regarding his or her decisions, she may make shortsighted decisions that are not in shareholders' long-term interest. The reason is that such a manager wants to enhance his or her reputation in the labor market (which primarily values the manager's short-term performance) and improve his or her wages. Narayanan (1985) also demonstrates that this short-term behavior is negatively related to manager experience, the duration of his or her

contract, and firm risk. Campbell and Marino (1994) extend this idea and show that the problem of managerial opportunism becomes more severe with mobile managers and flexible labor markets. They argue that in countries such as Japan, where inter-firm mobility is almost nonexistent, the interests of management and shareholders are more strongly aligned, spurring investment in long-term projects. In contrast, in countries or industries with more flexible labor markets, there is a strong incentive to behave myopically because a manager's compensation increases with his or her perceived ability. An optimal contract should therefore induce an executive to stay with the firm using deferred contingent compensation. The problem is that if the terms of employment are determined on the labor market, there exist minimum levels of total compensation and minimum shares of incentive pay. In this case, the problem of myopic behavior cannot be solved using compensation contracts. Campbell and Marino's (1994) research is in-line with that of Holmström (1982), who was the first to introduce the idea that flexible labor markets may actually create a managerial incentive problem. Working in the same vein, Hirshleifer and Thakor (1992) argue that concerns about reputation distort managers' investment decisions in favor of relatively safe projects that lead to short-term payoffs but have low expected firm returns. This puts a manager's interests closer to the interests of bondholders, who favor short-term, low-risk projects over long-term, high-risk projects (Bester & Hellwig, 1987; Biais & Casamatta, 1999; Jensen & Meckling, 1976; Stiglitz & Weiss, 1981).

Antia et al. (2010) test the predictions of Campbell and Marino (1994) and Hirshleifer and Thakor (1992) and are able to show that shorter CEO horizons are associated with higher agency costs and lower firm performance.

Relationship of the Literature

Review to the Principal-Agent Model

The strands of literature summarized above are useful to understand both the context and the mechanics of the principal-agent model. The section Nonfamily Managers in Family Firms informs about the goals and motivations of nonfamily managers working in family firms and thus helps to understand the model's assumptions in this regard. The section Executive Pay in Family Firms summarizes empirical studies regarding executive pay in family firms. It puts the results of the principal-agent

model into perspective and allows identifying further avenues for empirical work based on the model's results. Sections Principal-Agent Models on Executive Pay and Principal-Agent Models on Managerial Myopia both deal with principal-agent models on executive pay and managerial myopia (and their empirical validation). The two sections show the mechanics of the principal-agent model, in particular the modeling of the trade-off situation between short- and long-term goals.

The Model

Contextualizing the Principal-Agent Multitask Model of Holmström and Milgrom (1991) for the Specific Situation of Executive Pay in Family Firms

Zahra (2007a) discusses how (entrepreneurship) research can gain greater relevance and rigor by contextualizing theory building (and testing). He distinguishes four scenarios: (a) established phenomenon/established theory, (b) new phenomenon/established theory, (c) established phenomenon/new theory, and (d) new phenomenon/new theory. This article clearly falls into Category 2: It borrows the established principal-agent theory from the field of (labor and personal) economics and adapts it to an underresearched (but relevant) phenomenon in the context of family firms: namely, how to pay nonfamily managers working in family firms. In such a case, Zahra (2007a) recommends establishing the relevance of the theory to the phenomenon and questioning the basic arguments and assumptions underlying the theory. In a last step, the findings may be used to help advance the original theory.

Principal-agent theory is the most widely used *economic* theory of incentives (for overviews, see Eisenhardt, 1989; Gibbons, 2005; Prendergast, 1999). The classic principal-agent model assumes that an agent acts to produce output, which the principal owns. To incentivize the agent, the principal pays the agent a wage contingent on output. There is noise in the production function: The agent's level of effort does not always correspond to the level of output observed by the principal. With an output-contingent contract, the agent accepts risk. The optimal share of incentives in the contract depends on the agent's level of risk aversion and the amount of noise in the production function. As noted above, this basic model has been further developed to

include multiple tasks that interact with each other (Holmström & Milgrom, 1991).

This article extends the model of Holmström and Milgrom (1991) and uses it to analyze the particular position of nonfamily managers working at family firms. The model is contextualized in that the principal is the business-owning family and the agent is the non-family manager. Thus, in-line with those of other studies (Blumentritt et al., 2007; Chrisman, Chua, & Litz, 2004; Chua et al., 2003; Gomez-Mejia, Nunez-Nickel, & Gutierrez, 2001), the model assumes that a principal–agent dynamic exists between the family and the non-family manager. This is a fair assumption because the two parties are connected by an employment contract and not through familial relationships. In addition, as the literature review in the previous section shows, the goals of nonfamily managers and business-owning families are likely to diverge. Relative to family managers, nonfamily managers may see themselves more as agents rather than as stewards of the firm (Corbetta & Salvato, 2004). In a stewardship situation, the results of my model do not hold, and the boundaries of the theory are reached (Zahra, 2007a, 2007b). The abstract tasks in the model by Holmström and Milgrom (1991) are contextualized, in that Task 1 corresponds to achieving *short-term* performance, whereas Task 2 corresponds to achieving *long-term* performance. If we extend the original model by Holmström and Milgrom (1991), the non-family manager is assumed to be interested not only in his or her current wages but also in his or her value on the market for corporate executives, which is determined by his or her observed level of short-term performance (Antia et al., 2010; Campbell & Marino, 1994; Narayanan, 1985).

Table 1 compares the setup of the general multitask principal–agent model of Holmström and Milgrom (1991) with the specific model setup used in this article.

Model Setup

The model is as follows. I consider a principal–agent environment in which the business-owning family (hereafter family) constitutes the principal and the non-family manager (hereafter manager), the agent. The manager is hired from the outside labor market and has not been with the firm before. The value of output for the family is $B(e)$, where $e \in \mathfrak{R}^+$ is the manager's efforts associated with private costs $C(e)$ for the manager. $B(e)$

is increasing in e and modeled as a Cobb–Douglas utility function. $C(e)$ is increasing and convex (i.e., the manager's marginal costs of effort increase with additional effort). The manager has two tasks: achieving short-term performance, e_1 (e.g., increases in dividends, increases in sales, etc.), and achieving long-term performance, e_2 (e.g., technological edge, good relations with stakeholders, survival of the firm, etc.). The value the family attributes to each task is denoted by p_1 (p_2). The family is assumed to be risk-neutral. The family aims to maximize its gross benefit, which is given by,

$$B(e_1, e_2) = e_1^{p_1} e_2^{p_2} \Leftrightarrow B(e_1, e_2) = p_1 \ln e_1 + p_2 \ln e_2$$

under the budget constraint (1)

$$e_1 p_1 + e_2 p_2 = m.$$

The budget constraint refers to the naturally given constraints in the provision of short- and long-term performance. This budget constraint is assumed to be *not* binding and thus is neglected in the further analysis. The model focuses on the effect of the manager's interests and characteristics on the optimal contract.

The family separately observes the results of each task:

$$x_1 = e_1 + \varepsilon_1 \quad (2)$$

and

$$x_2 = e_2 + \varepsilon_2 \quad (3)$$

where the pair of observational noises $(\varepsilon_1, \varepsilon_2)$ follows a centered normal distribution with variance

$$\Sigma = \begin{pmatrix} \sigma_1^2 & \sigma_{12} \\ \sigma_{21} & \sigma_2^2 \end{pmatrix}, \quad (4)$$

where σ_{12} and σ_{21} are assumed to be zero. The manager is assumed to be risk-averse. The manager's utility function is given by

$$u(z) = -e^{-rz} - C(e), \quad (5)$$

where r is a positive constant that indicates the manager's risk aversion and z denotes the executive's utility if she were risk-neutral. z is given by

$$z = (w + \gamma x_1), \quad (6)$$

where w denotes the manager's compensation and γ indicates the value the manager attributes to sending a signal of short-term performance (x_1) to the market for

Table 1. General Multitask Principal–Agent Model Versus Specific Model Used in This Article

	Holmström and Milgrom (1991) Model	The Model in This Article
Principal	Any type of individual/ institution delegating tasks	Family as owner of a family firm
Assumptions about principal	Risk-neutral; his or her goal is to maximize the utility gained from tasks delegated to the agent; no specific utility function assumed; no budget constraint assumed	Risk-neutral; his or her goal is to maximize the utility gained from short- and long-term family firm performance; preference for short- and long-term performance can vary; Cobb–Douglas utility function; budget constraint assumed
Agent	Any type of individual/ institution working under the supervision of the principal	Nonfamily manager employed by a family-owned firm
Assumptions about agent	Risk-averse; his or her goal is to utility gained from pay; exponential utility function with constant absolute risk aversion (CARA)	Risk-averse; his or her goal is to maximize his or her utility gained from pay <i>and</i> his or her perceived value of sending a signal of strong short-term performance to the market for executives; preference for pay and signaling can vary; exponential utility function with constant absolute risk aversion (CARA)
Cost function	Agent's efforts are associated with costs for the agent; cost function is increasing and convex	Manager's efforts are associated with costs for the manager; cost function is increasing and convex
Compensation rule	Linear; contingent on observed fulfillment of delegated task	Linear; contingent on observed short- and long-term performance of family firm
Observability of tasks	Noise between agent's effort and observed fulfillment of tasks exists; noise follows a centered normal distribution with mean zero and variance σ_i . Observability of tasks are <i>not</i> interrelated	Noise between manager's effort and observed short- and long-term performance of family firms exists; noise follows a centered normal distribution with mean zero and variance σ_i . Observability of short and long-term performances are <i>not</i> interrelated
Value maximization principle and no wealth condition	Assumed	Assumed; no wealth condition: family wealth is assumed to be <i>only little</i> affected by cash transfers from the pay contract (this holds for large family firms with rich families being owners)

executives. The inclusion of γ constitutes the main difference between my model and the model of Holmström and Milgrom (1991).

Equation (6) assumes a CARA utility function³ for the manager, which allows me to use the results of Holmström and Milgrom (1987) and to limit the attention to linear contracts.⁴ The executive's compensation is given by

$$w = \alpha_1 x_1 + \alpha_2 x_2 + \beta, \quad (7)$$

where α_1 and α_2 denote the intensity of the incentives for short-term performance (x_1) or long-term performance (x_2), respectively. β is a fixed component

greater than zero. Making use of the exponential form of the utility function, the manager's certainty equivalent (CE)⁵ is

$$CE = \alpha_1 e_1 + \alpha_2 e_2 + \beta + \gamma e_1 - C(e) - 0.5r\alpha_1^2\sigma_1^2 - 0.5r\alpha_2^2\sigma_2^2 - 0.5r\gamma^2\sigma_1^2. \quad (8)$$

That is, the manager's certainty equivalent consists of the expected wage plus the value of signaling to the outside market for executives minus his or her costs of effort and minus a risk premium. The net benefit of the family is given as

$$\begin{aligned}
 B(e) &= p_1 \ln e_1 + p_2 \ln e_2 - \\
 w &\Leftrightarrow B(e) = p_1 \ln e_1 + p_2 \\
 &\ln e_2 - (\alpha_1 x_1 + \alpha_2 x_2 + \beta).
 \end{aligned} \quad (9)$$

That is, the net benefit of the family equals its gross benefit minus the costs of the compensation contract.

Applying the *value maximization principle* now allows calculating the optimal contract for the family by maximizing the total certainty equivalent of the contract, that is the certainty equivalent of the family *plus* the certainty equivalent of the executive (Milgrom & Roberts, 1992, pp. 35-37, p. 218). The value maximization principle states that any contract is efficient only if it maximizes the total sum of the certainty equivalents of the two parties. The argument is that if a contract exists that leads to a higher total certainty equivalent, it is always possible to distribute it in a way that makes both parties better off. The value maximization principle thus separates the issue of the distribution of value from the issue of the creation of value. The value maximization principle can only be assumed if the *no wealth condition* applies, which states that the family's decisions are not affected from increased wealth due to cash transfers from the contract (Milgrom & Roberts, 1992, pp. 35-36). This assumption makes sense if the cash transfers between the family and the manager are small relative to the family's overall financial resources.

Using the value maximization logic described above, the optimal contract for the family can be obtained by maximizing the total certainty equivalent (TCE) of the contract, which is

$$\begin{aligned}
 \text{TCE} &= p_1 \ln e_1 + p_2 \ln e_2 + \\
 &\gamma e_1 - C(e) - 0.5r\alpha_1^2\sigma_1^2 - \\
 &0.5r\alpha_2^2\sigma_2^2 - 0.5r\gamma^2\sigma_1^2
 \end{aligned} \quad (10)$$

with regard to e_1 and e_2 under the participation constraint that the certainty equivalent is greater than zero. Furthermore, the contract should be compatible with the two incentive constraints,

$$C_1 \leq \alpha_1 + \gamma \quad (11)$$

and

$$C_2 \leq \alpha_2 \quad (12)$$

as well as the budget constraint that $w \leq \bar{w}$; the budget constraint \bar{w} restricts the family from paying more than $\bar{w} > 0$ to the manager. \bar{w} is defined as the amount the

family can credibly commit without defaulting. For ease of the analysis, it is assumed that \bar{w} is so high that the budget constraint never binds.

In the optimum, Equations (11) and (12) are binding, that is, $C_1 = \alpha_1 + \gamma$ or $C_2 = \alpha_2$. The participation constraint is fulfilled if β , the fixed component of the compensation contract, is assumed to be greater than zero.

Figure 1 describes the sequence of events and Table 2 summarizes the notation used in the model.

Analysis

The goal of this study is to determine the optimal sensitivity of pay to short-term performance (α_1) for nonfamily managers working at family firms. Toward this end, the model is now analyzed in four steps. First, some general compensation rules governing the optimal sensitivity of pay to short-term performance are established. Next, based on the model results, the compensation of a nonfamily manager is discussed. Then, the optimal compensation contract of a nonfamily manager is compared with the optimal compensation contract of a family executive. Finally, six propositions are derived from the model.

Compensation Rules Governing the Optimal Sensitivity of Pay to Short-Term Performance

In the optimal contract, the marginal benefit of a unit of manager effort equals the marginal costs of this unit of effort, as described by Equations (11) and (12). Hence, it is possible to derive the optimal contract with respect to the sensitivity of pay to short-term performance (α_1) by calculating the partial derivative $\partial \text{TCE} / \partial e_1$:

$$\frac{\partial \text{TCE}}{\partial e_1} = \frac{p_1}{e_1} + \gamma - C_1 - r\sigma_1^2 C_1 C_{11} - r\sigma_2^2 C_2 C_{21}. \quad (13)$$

Substituting the incentive constraints (11) and (12) into Equation (13) then yields,

$$(\alpha_1 + \gamma) = \frac{p_1}{e_1} + \gamma - (\alpha_1 + \gamma) - r\sigma_1^2 (\alpha_1 + \gamma) C_{11} - r\sigma_2^2 \alpha_2 C_{21}. \quad (14)$$

Solving Equation (14) for α_1 gives

$$\alpha_1 = \frac{\frac{p_1}{e_1} - \gamma - r\gamma\sigma_1^2 C_{11} - r\sigma_2^2 \alpha_2 C_{21}}{2 + r\sigma_1^2 C_{11}}. \quad (15)$$

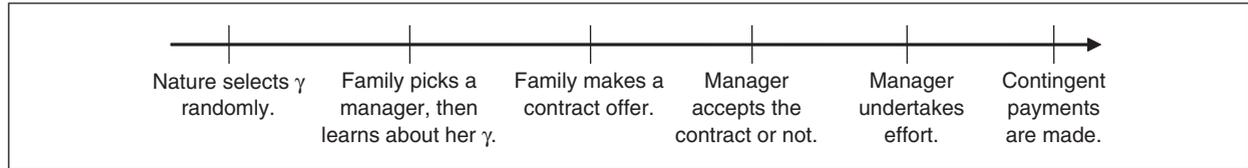


Figure 1. Sequence of events

Table 2. Notation Used in the Model

Variable	Meaning
$B(e)$	Benefit of the family
e_1, e_2	The executive's efforts for short-term performance (long-term performance)
p_1, p_2	The value the family attributes to short-term performance (long-term performance)
$\varepsilon_1, \varepsilon_2$	Measurement errors
σ_1^2, σ_2^2	Variances of measurement errors
x_1, x_2	Observed short-term performance (long-term performance)
α_1, α_2	Sensitivity of pay to performance regarding short-term goals (long-term goals)
β	Fixed component in the compensation contract
r	Level of manager's risk aversion
z	Net benefit of the executive if she were to be risk-neutral
$u(z)$	The executive's utility function
γ	Value the executive attributes to signaling of short-term performance
$C(e)$	Costs of efforts
C_1, C_2	First derivatives of cost function; marginal cost of efforts
C_{11}, C_{22}	Second derivatives of cost functions
C_{12}, C_{21}	Cross derivative of cost function; determines whether tasks are cost substitutes or cost complements

Following Equation (15), the intensity of incentives for short-term performance (α_1) should be high if

- p_1 (the value that the family attributes to short-term performance) is high
- r is low; the less risk-averse the manager, the more effective it is for the family to provide the executive with incentives
- γ is low; the manager has less interest in signaling strong short-term performance to the outside market for executives
- σ_1^2 is low; e_1 is observable to a certain degree
- α_2 is low; a decrease in the compensation for long-term performance shifts the manager's attention toward achieving short-term performance
- C_{11} is low; a slight change in α_1 results in a large change in e_1 . The manager is responsive to incentives

- C_{21} is low; the efforts made to achieve short-term and long-term goals are cost substitutes to a low degree (i.e., increasing the marginal costs of effort to improve short-term performance leads to only a minor increase in the marginal costs of effort to improve long-term performance). This substitution effect increases with high σ_2^2 (error in measuring effort to ensure long-term performance) and high α_2 (incentives for long-term performance).

Numerical Examples to Explain the Model's Properties

The following numerical examples can help us to understand the model's properties. To isolate the effects of interest, most parameters are kept constant in all examples. Unless noted otherwise, the respective model parameters have a value of 0.5.

Table 3. High Versus Low: (A) Interest in Signaling, (B) Risk Aversion of Manager, and (C) Measurement Error in Short-Term Performance

Panel A									
Value attributed to signaling (γ)	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Incentives for short-term performance (α_1)	0.40	0.35	0.30	0.24	0.19	0.14	0.09	0.03	0
Panel B									
Value attributed to signaling (γ)	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Risk aversion (r)	0.24	0.23	0.21	0.20	0.19	0.18	0.17	0.16	0.15
Panel C									
Value attributed to signaling (γ)	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Measurement error in efforts for short-term performance (σ_1^2)	0.23	0.22	0.21	0.20	0.19	0.18	0.18	0.17	0.16

Note. $p_1 = 2$; all other model parameters are set to 0.5.

Table 3, panel A, illustrates the role of high versus low interest in signaling strong short-term performance to the outside market for executives: The effect is large. An increase from 0.2 to 0.5 in the manager-perceived value of signaling leads to a reduction in the optimal share of short-term performance pay (from 0.35 to 0.19). Although they are of somewhat smaller magnitude, the effects of the manager's level of risk aversion (Table 3, panel B) and the observability of his or her efforts to improve short-term performance (Table 3, panel C) are similar.

Propositions I: Compensation of Nonfamily Executives Working in Family Firms

The results of the theoretical model allow the formulation of several (testable) propositions regarding the optimal compensation of nonfamily managers working in family firms. The propositions are derived from Equation 15. For the sake of clarity, each proposition is followed by a number of examples or situations involving family firms.

Proposition 1: The perceived value of signaling strong short-term performance: From Equation 15, it follows directly that, ceteris paribus,

the nonfamily manager's share of short-term performance pay should be lower when the nonfamily manager is more interested in signaling strong short-term performance to the outside market for executives (signaling discount).

As an example, consider a family firm that may hire a nonfamily manager on an interim basis (Miller, Steier, & Le Breton-Miller, 2003) because of the sudden death of a family manager or to bridge a gap between two family generations. Almost by definition, such a manager has a strong incentive to demonstrate his or her skills with strong short-term results. After all, the manager needs to look for a new job after his or her contract expires, so signaling has a great deal of value for him or her. Ceteris paribus, the manager's contract should be lower powered with regard to short-term performance than the average contract.

Labor markets differ. Some labor markets are flexible, whereas others are not (e.g., Brodsky, 1994). The nature of the outside labor market for executives plays an important role in the design of the compensation contract. On the one hand, it restricts the options available. Given that the family firm is competing for the best managers, the family members may not have the power to design the compensation contract and its incentive

structure as they ideally would wish it to be. On the other hand, the nature of the labor market determines the value of signaling. In a labor market with low interfirm mobility (e.g., in a country such as Japan or in a highly specialized industry), the value of signaling and consequently the risk of myopic behavior are low. In such a situation, the contract may include high levels of short-term incentives.

If the family hires a young manager, it is fair to assume that this manager sees his or her job as a stepping stone to another position in the firm or outside the firm. He or she wants to signal through early efforts that he or she intends to make a difference. These efforts may or may not be in the family's best interest. In any case, the manager wants his or her efforts to be visible to the (outside) labor market. He or she is likely to engage in activities that have a strong effect on short-term performance. For example, the manager might push sales using shortsighted price promotions or advertising. Such a manager has a strong inherent incentive to achieve short-term performance. This tendency to act based on the short term should not be further intensified by high-powered incentive contracts. Hence, *ceteris paribus*, a young manager's contract should include lower powered incentives than the average contract does. The opposite should be the case for a manager close to pension age who has low incentives to demonstrate his or her management skills by means of strong short-term results; he or she is unlikely to think about changing jobs.

Proposition 2: The observability of nonfamily manager efforts to improve short-term performance: From Equation (15), it follows directly that, *ceteris paribus*, the nonfamily manager's share of short-term performance pay should be higher when the nonfamily manager's efforts to improve short-term performance can be better observed.

If the family firm is active in an industry in which long-term projects play an important role (e.g., shipbuilding, manufacturing of specialized equipment), manager efforts to achieve exceptional short-term performance will be difficult to observe. This implies a lower share of short-term incentives than would be present in the average contract. In contrast, if the family firm is active in the consumer goods industry, in which short-term

measures such as increases in advertising or price promotions have immediate effects, then the manager's efforts to maximize short-term performance will be observable, and the contract should be high-powered in its acknowledgement of short-term performance. Prior empirical work suggests that many family firms are active in consumer goods industries; Villalonga and Amit (in press) refer to the beer and the newspaper industries as examples.

Proposition 3: Nonfamily manager's level of risk aversion: Based on Equation (15), it follows directly that, *ceteris paribus*, the nonfamily executive's share of short-term performance pay should be lower when the nonfamily executive's share of risk aversion is higher.

People are found to differ in their risk attitudes (Dohmen et al., 2005). The model shows that the executive's degree of risk aversion influences the *signaling discount* (Proposition 1). When the manager is more risk-averse, a greater *signaling discount* should be considered in the optimal contract. Thus, there exists a person-pay interaction in terms of the design of the optimal compensation contract (Wowak & Hambrick, 2010). The personality of the CEO plays an important role in determining the share of short-term incentives included in the contract.

Proposition 4: Nonfamily manager responsiveness to incentives: Based on Equation (15), it follows directly that, *ceteris paribus*, the nonfamily manager's share of short-term performance pay should be lower when the nonfamily executive's responsiveness to incentives is greater.

People differ in their responsiveness to monetary incentives (Deci, Koestner, & Ryan, 1999; Deci & Ryan, 1985). This is also true of managers. Some executives are extremely responsive to monetary incentives, whereas others derive their motivation from intrinsic factors or from the position and the work itself (Frey & Osterloh, 2005). In-line with this argument, Wowak and Hambrick (2010) suggest that manager levels of materialism influence the effects of incentive pay on strategic decisions. In this way, the selection criteria used to recruit nonfamily managers influence

the design of the optimal contract. If the family firm recruits a manager who is primarily interested in the development of the firm's products and the job itself rather than a specific dollar amount, the share of short-term incentives should be high. In turn, if the family firm recruits a materialistic manager, the level of short-term incentives should be low because such a share will suffice to motivate the manager.

Propositions II: Effects of Short-Term Incentive Pay on Family and Nonfamily Managers

When interpreting the variable γ slightly differently, the results of the model can be used to make predictions regarding the compensation of family managers. The question is very relevant for family firms because family and nonfamily managers often work in similar positions and are members of the same board of directors. Should family and nonfamily managers be offered similar contracts? To answer this question, the following two issues need to be considered.

First, family managers differ from nonfamily managers in two important respects. First, they find it more difficult to leave the firm, which reduces their desire to send a signal of strong short-term performance to the market for executives (low γ in Equation 15). The situation is different for nonfamily managers, who will not necessarily remain at the firm in the long run and will want to leave with a successful track record. Unlike family managers, nonfamily managers do not have the patience to wait for long-term strategies to ultimately pay off. Thus, to make the comparison between family and nonfamily managers, the continuous variable γ (*value the executive attributes to signaling of short-term performance*) has to be interpreted as follows: small values (large values) of γ refer to family managers (nonfamily managers).

Second, family managers are likely to inherit the firm in the future. Following a long-term strategy that leads to better long-term performance increases their future wealth. Thus, the wealth of family managers and long-term firm performance are strongly linked (which leads to a high α_2 in Equation 15). The family manager will therefore be strongly motivated to achieve long-term performance.

The above arguments and the results of the theoretical model (in particular, Equation 15) indicate that short-term incentive pay has different effects on family

and nonfamily managers. The effect of short-term incentive pay on short-term performance should be larger for nonfamily than family managers. This leads us to the following proposition:

Proposition 5: The effect of short-term incentive pay on short-term performance for family and nonfamily managers: Ceteris paribus, the effect of short-term incentive pay (e.g., annual bonuses) on short-term performance should be higher for nonfamily managers than for family managers.

Short-term incentive pay can have negative effects on long-term goals (Dutta & Reichelstein, 2003; Frey & Osterloh, 2005; Rappaport, 2005). For example, to increase his or her annual bonus, a manager may cut resources for R&D, customer loyalty programs, or corporate social responsibility initiatives. The model used in this article predicts that these negative effects of short-term incentive pay on the pursuit of long-term goals should be larger for nonfamily than family managers, which leads to the following proposition:

Proposition 6: The effect of short-term incentive pay on the pursuit of long-term goals by family and nonfamily managers: Ceteris paribus, the (negative) effect of short-term incentive pay (e.g., annual bonuses) on the pursuit of long-term goals should be higher for nonfamily managers than for family managers.

Limitations

Naturally, the specific setup of the theoretical model creates a number of limitations. Most limitations have to do with the model's assumptions. They determine the boundaries of our theoretical results (Zahra, 2007b). The following limitations apply.

First, the model is a principal-agent model (Ross, 1973). Principal-agent models have been criticized by management scholars (e.g., Lubatkin, 2007; Zahra, 2007b), because they use a reductionist approach and because they assume that individuals are rationally behaving agents that only seek to maximize their respective individual utility (Davis, Schoorman, & Donaldson, 1997; Jensen & Meckling, 1976). Agency problems and agency costs occur when the utility functions of agents and principals are not aligned. Monitoring and the provision

of incentives can solve these agency problems. Critics argue that the economic model of man does not explain the complexity of manager behavior in family firms because intrinsic motivation, fairness, and prosocial behavior are not considered (principal–steward relationship; Corbetta & Salvato, 2004).

Second, the model assumes the value maximization principle and the no-wealth condition, stating that the family's decisions are not affected by increased wealth due to cash transfers to the nonfamily manager. The latter condition only makes sense for *large* family firms.

Third, the model considers the agency costs of a separation between ownership and management. It does *not* make any statements about agency costs associated with conflicts between owners and lenders (Anderson, Mansi, & Reeb, 2003), agency costs created by conflicts between dominant and minority shareholders (Claessens, Djankov, Fan, & Lang, 2002; Morck & Yeung, 2003), or agency costs from altruism (Schulze, Lubatkin, & Dino, 2003). In particular, the latter have been shown to have an effect on the compensation of family managers working in family firms.

Fourth, the model assumes that there exist only little differences *within* the group of family and nonfamily managers, respectively. The reality is more complex, with some family managers having gained professional experience outside the family firm while others have only worked for the family firm (Chirico, 2008). There also exist nonfamily managers grown up in the family firm with no ambitions moving to another firm.

Last, the model assumes that short- and long-term performances are substitutes for each other. Although this is a fair assumption to make (cf. Rappaport, 2005), there may exist situations in which this assumption does not hold (e.g., when the family firm is near bankruptcy).

These limitations determine the extent to which the results can be generalized to the group of all family firms. Particular caution is necessary when applying the results of the model to *small* family firms.

Implications for Family Business Research: Avenues for Empirical Research

I discuss the possibilities to test the model's propositions empirically. The model's results also have implications for the succession debate, research on the role of nonfamily executives, and research on executive pay in

family firms. Some of the model's normative predictions in these areas call for empirical research.

Testing the Model's Propositions

To test the model's predictions, proxies for short- and long-term performance as well as short-term incentive pay are needed. To measure short-term performance, a firm's (accounting) profitability in a particular year (e.g., return on assets or return on equity) could be used (Rappaport, 2005). The firm's level of corporate social responsibility (CSR) could serve as a proxy for long-term performance. CSR indicates a firm's care about stakeholders and can be seen as a proxy for the pursuit of long-term goals (Dyer & Whetten, 2006; Fombrun & Shanley, 1990).

As a proxy for short-term incentive pay, the share of annual bonus payments in executive pay could be calculated. If the predictions of the model were true, then the share of annual bonus pay should have a *positive* effect on accounting performance and a *negative* effect on CSR. These effects would be moderated by whether the executive is a family member or not, her risk aversion, and by environmental factors such as the industry or country in which the firm is active.

Succession

The model results contribute to the literature on succession issues (see Chua et al., 2003; Handler, 1994; Molly, Laveren, & Deloof, 2010). Succession is the most important concern for family firms (Chua et al., 2003). The model shows that designing a compensation contract for a nonfamily executive is difficult. The family needs to know what value the executive attributes to sending a signal of strong short-term performance to the labor market for executives, his or her degree of risk aversion, and his or her responsiveness to short-term incentives. Implementing the contract can be even more difficult, which is why it can be advantageous to choose a family successor even if the family candidate is less qualified than a nonfamily executive (Bennedson et al., 2007; Molly et al., 2010). Vinton (1998) suggests that within-family succession may be associated with greater loyalty, lower (management) turnover, more stable contractor relationships, and a higher level of long-term commitment to the company.

The model can also be used to explain why within-family succession is associated with lower firm performance than

is achieved when the task of managing a firm is passed to an outsider (Bennedsen et al., 2007; Cucculelli & Micucci, 2008): Compared with family CEOs, outsider CEOs have a stronger incentive to exhibit strong *short-term* performance to the market for executives. Future research in this area should differentiate between the effects of outsider succession on *short-term* firm performance and its effects on the pursuit of long-term goals, such as CSR or innovation (Block, 2010).

The model presented in this article also shows that outsider succession problems may become more severe when the executive's efforts related to short-term performance are more difficult to observe and when the executive is risk-averse and highly responsive to short-term incentives. Based on this logic, there should be more within-family succession in industries in which the executive's efforts are difficult to observe (e.g., cyclical or fast-moving industries). Empirical research on succession in family firms should thus more explicitly consider the industry context. For example, the research of Bennedsen et al. (2007) shows that the (negative) performance effects of within-family succession are larger in high-growth industries than in other industries.

Another interesting conclusion concerns the nature of the labor market for executives. From the model, it also follows that a flexible labor market increases the value of signaling for the executive and thus reduces the optimal intensity of short-term incentives in the contract. If a contract cannot be implemented due to restrictions from the market for executives, a family candidate may be a better choice of successor than a nonfamily executive, even if the former candidate is less qualified. This leads to an interesting phenomenon: On the one hand, a flexible labor market for executives increases the chances of one's finding a suitable nonfamily executive and on the other hand, it is precisely this element of flexibility in the labor market that makes it challenging to design the optimal contract. These considerations explain why the effects of outsider succession on performance may differ across countries: For example, Bennedsen et al. (2007) and Cucculelli and Micucci (2008) find a negative effect of within-family succession on firm performance in Danish and Italian family firms, whereas Sraer and Thesmar (2007), using a data set of firms listed on the French stock market, find that firms run by descendants of the founder outperform widely held corporations.

Nonfamily Executives in Family Firms

The model's findings also shed light on the issue of nonfamily executives, which is an important concern for many family firms (Chua et al., 2003). The employment of nonfamily managers help the firm to accumulate knowledge in new fields and makes the family firm more flexible with regard to business opportunities being pursued (Chirico, 2008). Yet a business-owning family should be aware that a nonfamily executive may make trade-offs between his or her efforts for long- and short-term performance and should closely examine candidates and their motivations. In some situations, it may be better to hire family members even though they are less qualified than external candidates (Vinton, 1998). Family members usually have a greater loyalty and a stronger commitment to the company. So far, very little is known about the reasons why nonfamily executives choose to join family firms (Blumentritt et al., 2007; Klein & Bell, 2007; Sonfield & Lussier, 2009). Empirical research in this area would be helpful and facilitate the design of better compensation contracts. Interesting questions include to what extent nonfamily executives are interested in signaling strong short-term performance to the market for executives; to what degree this interest in signaling depends on age, industry experience, and industry context; whether this interest in signaling is stronger for interim managers than for other nonfamily executives, and whether a nonfamily executive regards his or her job at the family firm as an interesting career path rather than merely as a stepping stone to a higher paid job outside the family firm.

Another issue of great relevance is the selection process for nonfamily executives (Hall & Nordqvist, 2008; Reid & Adams, 2001). Family business owners who want to grow their business must find nonfamily executives who share their long-term view of the firm. Empirical research might help family business owners in this selection process. What are the criteria that they should use in the selection process? For example, is it better to have a track record with many firms? Is it better to have an MBA from a renowned business school? How important is experience as a consultant? Is there a trade-off between the qualifications of the candidate and his or her desire to make a strong short-term contribution?

Executive Pay in Family Firms: Finding the Right Mix of Performance Pay

Empirical research on executive pay at family firms (e.g., Chrisman et al., 2007; Combs et al., 2010; Gomez-Mejia et al., 2003; McConaughy, 2000; Miller, Block, & Jaskiewicz, 2010; Singal & Singal, 2010) should improve if the results of this model are used in further studies. McConaughy (2000) and Gomez-Mejia et al. (2003) find that family CEOs receive less incentive-based pay than do nonfamily CEOs working at family firms. McConaughy (2000) terms this observation the *family incentive alignment hypothesis*. It is argued that a family CEO's interests are more similar to the goals of the firm and that this reduces the need for incentives. The results of this model show that the opposite effect also occurs. Relative to nonfamily executives, family executives are less interested in signaling strong short-term performance, which means that for them, an optimal contract should include *more* short-term incentives as compared with nonfamily executives. This surprising result will not be easy to implement in practice: Family firms need to find a way to measure and evaluate the short-term performance of their family managers, such as by means of sales or accounting performance. Family managers, however, may find it annoying to be monitored by their own family and to explain their short-term achievements to the members of their own family. Family conflicts can arise. The family needs to find a way how to deal with these potential inner-family tensions.

Empirical research in this area could be conducted to analyze how the family incentive alignment effect and the signaling effect of this article interact with each other and in what contexts one or the other is more important. Recent research in this area looks promising: Singal and Singal (2010), for example, find that pay-for-performance sensitivity is higher for family CEOs than for other CEOs. Changes in firm value are used as a measure of performance, and annual compensation is used as a measure of pay. Similarly, Achleitner et al. (2010) find that family firms rely more on accounting-based incentive pay than do nonfamily firms. It would be interesting to examine family and nonfamily executives who are active on the same board of the same firm and have similar responsibilities. Such an approach would allow the researcher to control for firm, board,

and job-related fixed effects and make statements about the person–pay interaction (Wowak & Hambrick, 2010)

As mentioned above, subjective performance measures and voluntary bonus payments have been suggested as an alternative to objective performance measures (Baker et al., 1994; MacLeod & Malcomson, 1989). Given that family firms are often not listed on the stock market and that long-term goals are particularly difficult to measure, it would be interesting to examine whether family firms rely more on subjective performance measures and voluntary bonus payments.

Summary and Conclusions

This article analyzes the compensation contracts of nonfamily executives working at family firms. Because of the increasing prevalence of nonfamily executives (not only as CEOs but also in other positions such as the CFO or COO role), this topic is of great importance for family firms and deserves more research. To the best of my knowledge, this is the first study that has considered this problem in a theoretical, normative way. This approach is a beneficial one because it can yield concrete advice, as summarized in the propositions above. The caveat is that the results often depend on the specific assumptions made (as is always the case with economic models). My model assumes that the executive is risk-averse and maximizes his or her utility and that efforts to enhance long-term and short-term performance are substitutes in the executive's cost function.

The results of the family firm contextualized principal–agent model may also be used to inform general principal–agent theory (Hart & Holmström, 1987; Prendergast, 1999; Ross, 1973). Principal–agent models often conclude that it is a good idea to provide managers with incentives for (short-term) performance. Having pointed out the negative effects of short-term incentives for nonfamily managers, this article shows the limitations of such performance-contingent contracts.

Principal–agent analysis and contract theory are well-developed tools in standard microeconomics. I believe that there is a need for more studies that apply such models to problems to family business research. The analysis performed in this article could be extended to include varying degrees of bargaining power and monitoring intensity. It might also be helpful to more closely examine the stage *before* the

nonfamily executive is selected and a contract is designed (Akerlof, 1970).

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Notes

1. Flexible labor markets are characterized by low hiring and firing costs, flexibility in terms of location and pay arrangements and short-term employment contracts (e.g., Brodsky, 1994). In a flexible labor market, individuals change their jobs more frequently than in other labor markets.
2. That is, the remuneration board grants a bonus based on its subjective assessment of the executive's performance, evaluating the more subjective aspects of performance in particular (e.g., willingness to cooperate with the board, level of customer satisfaction).
3. CARA stands for constant absolute risk aversion. That is, risk aversion is independent of the agent's level of consumption (level of income). An alternative would be to assume relative risk aversion, which states that risk aversion depends on the agent's level of consumption (level of income).
4. Holmström and Milgrom (1987) show that, in many cases, a linear contract is the unique optimal compensation scheme.
5. That is, a certain payment that gives the same level of utility as the (uncertain) incentive contract.

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