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CEO managerial ability and the marginal value of cash

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ABSTRACT

This study examines whether the managerial ability of a chief executive officer (CEO) is associated with a marginal value of cash. We predict that more talented CEOs make better use of cash, creating the marginal value of cash. Using the managerial ability measures of Demerjian et al. (2012) and the cash value model developed by Faulkender and Wang (2006), we find that CEO managerial ability significantly increases the marginal value of cash. We also find that the effect of managerial ability on the marginal value of cash is generally greater for financially constrained firms. We further show that that the positive impact of managerial ability on the marginal value of cash is more evident for firms with higher levels of free cash flows and lower management entrenchment. Overall, our findings suggest that the market places a higher value on cash if the cash is managed by more able CEOs, which is consistent with the view that shareholders consider the ability of a CEO when they evaluate cash.

1. Introduction

In this study, we examine whether a firm's marginal value of cash can be attributed to the firm's CEO's managerial ability. This study is motivated by the following. Cash is an important source of internal capital that is under the control of CEOs. That is, decisions about how to deploy cash are at the managers' discretion (Liu & Mauer, 2011). A firm's survival generally depends upon how effectively the firm manages its cash. Consistent with this view, a stream of research (e.g., Fazzari, Hubbard, & Petersen, 1988; Jensen, 1986; Pinkowitz & Williamson, 2004) shows that the value of cash depends on its availability and on how CEOs use it. In particular, Jensen (1986) argues that the individual characteristics of CEOs, such as personal interests and incentives, affect utilization of cash because available cash is under CEOs' control. He also claims that managers may abuse their managerial discretion over the use of cash to pursue their own interests when the firm has a high level of cash. In particular, existing theoretical studies (e.g., Faulkender & Wang, 2006; Jensen, 1986; Myers & Majluf, 1984) suggest that a dollar of cash held by a firm may be valued at more than a dollar by its shareholders. For instance, Faulkender and Wang (2006) show that the marginal value of cash declines as cash reserves increase. Overall, prior evidence suggests that the marginal value of cash can be significantly influenced by CEOs' ability. It is therefore critical for shareholders and investors to investigate how effectively managers utilize cash to maximize the marginal value of cash. Nonetheless, there is little research on the association between the marginal value of cash and managerial ability.

Numerous studies (e.g., Baik, Farber, & Lee, 2011; Banker, Darrough, Huang, & Plehn-Dujowich, 2013; Carter, Franco, & Tuna, 2010; Chang, Dasgupta, & Hilary, 2010; Goodman, Neamtiu, Shroff, & White, 2013; Harris & Holmstrom, 1982; Jian & Lee, 2011; Rajgopal, Shevlin, & Zamora, 2006; Trueman, 1986) report that more able CEOs better manage a firm's business operations, thereby enhancing the firm's performance. In their theoretical work, Harris and Holmstrom (1982) argue that firms observe and assess a manager's ability and the manager's output over time and that a more experienced and high-ability manager's productivity is perceived to be high. Recently, Demerjian, Lev, and McVay (2012) show that more able CEOs are expected to deliver a higher marginal outcome from the same level of resources, thereby enhancing the value of the firm. Accordingly, the marginal value of $1 of cash may not be valued at $1 by investors for various reasons, including managerial ability if high-quality CEOs generate a higher rate of output from given inputs than lower-quality CEOs (Demerjian et al., 2012). Thus, we argue that the marginal value of cash is impacted by management talents and should be higher than $1 if the cash is managed by more able managers.

Using the managerial ability scores and rankings developed by Demerjian et al. (2012), we find that CEO managerial ability is positively associated with the marginal value of cash. This finding is further substantiated by sub-sample analysis of financially constrained and unconstrained firms. The marginal value of cash is generally lower if firms are financially unconstrained, because value-increasing

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investments can easily be funded through external capital, and cash is not an urgent need (e.g., Faulkender & Wang, 2006; Fazzari et al., 1988; Myers & Majluf, 1984). Our results also show that the effect of managerial ability on the marginal value of cash tends to be greater for firms that are especially financially constrained. We further find that a firm's free cash flows matter in our research context. Specifically, we provide evidence that the positive impact of managerial ability on the marginal value of cash is more evident in firms with a high level of free cash flows, which indicates that managerial ability matters most in settings in which managerial discretion is highest. Finally, we find that the positive impact of managerial ability on cash value is more pronounced for firms with lower management entrenchment.

This study makes two important contributions to the accounting and finance literature on managerial ability and the value of cash holdings. First, our study sheds light on how CEOs' individual characteristics affect the marginal value of cash holdings. Prior studies suggest that CEOs' capabilities significantly contribute to improved financial outcomes and high information quality (e.g., Baik et al., 2011; Banker et al., 2013; Carter et al., 2010; Chang et al., 2010; Demerjian, Lev, Lewis, & McVay, 2013; Harris & Holmstrom, 1982; Rajgopal et al., 2006). By extending Faulkender and Wang (2006), we provide evidence that management talent positively impacts the marginal value of cash. This enhances our understanding of the association between CEO managerial ability and the marginal value of internal capital. Second, existing literature (e.g., Milbourn, 2003; Graham, Li, and Qiu 2012; Banker et al., 2013) uses several measures (e.g., reputation, firm size, past abnormal performance, media exposure, or manager fixed effects) as proxies for managerial ability. These measures, however, are less precise because they reflect significant aspects of the firm that are outside of management's control (Demerjian et al., 2012). Unlike these studies, we use direct and more precise measures of managerial ability, which capture manager-specific aspects of managerial ability with respect to the marginal value of cash[1].

The remainder of this paper is organized as follows. In the next section, we discuss previous literature and develop our hypothesis. We discuss the research design in Section 3 and the empirical results in Section 4. Section 5 discusses additional analyses. We conclude the paper in Section 6.

2. Literature review and hypothesis development

2.1. Managerial ability

Business research has long focused on managerial ability and how individual variations in managerial talent have an incremental power to explain the variable levels of corporate decision quality, diverse firm practices, and economic outcomes.

Prior studies, driven by different research needs, use various proxies to indicate managerial ability. One stream of prior literature argues that prior firm-level performance and compensation levels can indicate CEOs' managerial ability. According to Harris and Holmstrom's (1982) dynamic model of efficient wage contracts, managers work on the firm's behalf and generate observable output, through which firms can learn about a manager's ability over time. This theoretical argument has also been supported by empirical evidence of a positive association between managerial characteristics and firm performance (e.g., Baik et al., 2011; Banker et al., 2013; Carter et al., 2010; Chang et al., 2010; Rajgopal et al., 2006). For instance, using firm performance and compensation levels as proxies, Chang et al. (2010) show that the stock market reaction to CEO turnover is negatively associated with the firm's previous performance and the CEO's pay, and that better prior firm performance and higher CEO pay lead to a better subsequent labor market for the CEO.

Reputation is another popular proxy for managerial talent (e.g., Baik et al., 2011; Francis, Huang, Rajgopal, & Zang, 2008; Milbourn, 2003 and Rajgopal et al., 2006), where CEO reputation is typically measured by the number of articles in the public press containing a CEO's name. For example, Milbourn (2003) develops a model and empirically tests the prediction that CEO reputation is positively related to stock-based pay sensitivities. Francis et al. (2008) find a negative association between highly reputed CEOs and lower discretionary accruals, indicating that CEO reputation has a positive impact on earnings quality. Baik et al. (2011) find that the frequency of issuing management earnings forecast increases with CEO ability and that the market reacts more favorably to management forecasts released by high-ability CEOs than to those released by relatively low-ability CEOs, implying that higher-ability CEOs transmit not only more information but also higher-quality information to the market than do low-ability CEOs. Last but not least, Goodman et al. (2013) use the quality of managers' externally reported earnings forecasts as a proxy for management ability and show that managers' ability is positively related to the quality of their corporate investment decisions.

While the proxies discussed above are warranted with respect to their research purposes, there are still questions and concerns as to whether these measures are exhaustive, whether they fully consider managerial-specific effects, and whether their evaluation of managerial-specific effects is contaminated by firm-specific effects (Demerjian et al., 2012). In response to these concerns, Demerjian et al. (2012) develop a method to capture managerial ability in a more comprehensive way by partitioning total efficiency into firm-level and individual manager-level efficiency. The managerial ability measure in Demerjian et al. (2012) reflects managers' efficiency compared to that of their industry peers in transforming corporate resources to revenues. They then separate firm-level efficiency from managerial-level efficiency, which results in CEO managerial ability. Demerjian et al. (2012) confirm the validity of this measure of managerial ability and demonstrate that it contains less noise and better captures the manager-specific component of ability[2].

The managerial ability measure developed by Demerjian et al. (2012) has been adopted by other studies. For example, Demerjian et al. (2013) shows that earnings quality positively relates to managerial ability using the measure introduced by Demerjian et al. (2012). Baik et al. (2011), using the same measure of managerial ability, find that their results are consistent across three measures of managerial ability. Krishnan and Wang (2015) corroborate that audit fees and the likelihood of issuing a going concern opinion are decreasing in managerial ability. Finally, Gan and Park (2016) show that the pay-for-performance sensitivity of a CEO's equity-based compensation is significantly increasing in the CEO's ability.

2.2. The marginal value of cash

In their theoretical study, Myers and Majluf (1984) suggest that a dollar of cash held by a firm may be valued at more than a dollar by its shareholders. In a similar vein, Faulkender and Wang (2006) show that if firms have high external capital costs, then additional cash may be valued more. The marginal value of cash in a firm is affected by several factors, such as managerial ability, external capital costs, financial

[1] Demerjian et al. (2012) show that their ability measures outperform the existing measures, including past abnormal performance, CEO tenure, and media mentions.

[2] As discussed in Demerjian et al. (2012), however, the managerial ability measures have some limitations. For instance, measurement errors are unavoidable in some accounting variables that are used to estimate firms' efficiency scores. In addition, the first stage data envelopment analysis (DEA, hereafter) estimation can fail to capture some factors that relate to production input. Last but not least, using residuals as the measure of managerial ability may introduce some factors that are not attributable to managerial ability if there are omitted variables in the second stage regression model. Moreover, the ability measure in Demerjian et al. (2012) should be interpreted primarily as a measure of managerial efficiency in generating revenues; thus it is correlated with firm performance. This measure may therefore create a reverse causality problem.