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# Corporate governance and cash holdings: A quantile regression approach

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ABSTRACT

This study investigates the role of ownership and control structure of firms when determining their cash holdings and focuses mainly on the association between excess control rights and cash holdings. Using a sample of Taiwanese publicly listed companies from 1997 to 2009, this study shows that the relationship between excess control rights and cash holdings depends on each firm's characteristics in terms of quantile regression. Fewer excess control rights affect cash holdings positively in low cash holding firms but negatively in high cash holding firms. Additional analysis reveals that when a family member serves as the CEO in low cash holding firms, the amount of cash holding is greater than if the CEO is an outsider. However, family members holding the position of CEO affect cash holdings negatively in high cash holding firms. These results suggest that firms with less cash holdings stockpile more cash reserves to take advantage of investment opportunities. The objective of corporate governance for firms with more cash reserves is to ensure that firms decrease levels of cash to avoid agency problems.



## 1. Introduction

Corporate cash holding policies play an important role in a firm's financial policy. Empirical literature regarding corporate governance focuses a great deal of attention on the determinants of corporate cash holdings and the existence of an optimal level of cash holding (Chen, 2008; Chen & Chuang, 2008; Harford, Mansi, & Maxwell, 2008; Pinkowitz, Stulz, & Williamson, 2003). However, there is little research regarding the association between cash holdings and corporate governance, especially among firms with different levels of cash holdings.

The amount of cash holding raises concerns about the agency cost of cash flow, and thus determining the optimal level of cash holding is difficult. For low cash holding firms, managers require large amounts of capital to keep investment opportunities with high return potential (Myers & Rajan, 1998). The objective of effective corporate governance for these firms is to ensure that they maintain appropriate levels of cash (Harford et al., 2008). In contrast, the internal capital of high cash holding firms is sufficient enough for them to take advantage of profitable investment opportunities. Excess cash in high cash holding firms enables managers to pursue their own interests by spending on unnecessary expenses and unprofitable investments (Jensen, 1986; Jensen & Meckling, 1976). Effective corporate governance in these kinds of firms may create minority shareholder protections and therefore mitigate the agency problem of free cash flows by decreasing the level of cash holdings. This implies that corporate governance plays different roles in explaining corporate cash policy.

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The aim of this study is to investigate the impact of corporate governance on cash holdings in Taiwanese publicly listed firms. Observing the cash holding policies of Taiwanese firms is interesting because their average cash holdings exceed the average cash ratio of firms in most developed countries, including Germany, Spain, Portugal, South Korea, and Hong Kong (Chang & Noorbakhsh, 2006; Kalcheva & Lin, 2007). Additionally, there is a large divergence in the levels of cash holdings among Taiwanese firms (Kuan, Li, and Chu, 2011).

Firms in Taiwan tend to have a concentrated ownership structure. Yeh, Lee, and Woidtke (2001) study the structure of corporate ownership in Taiwan, and find that 76% of Taiwanese firms are controlled by families and the average cash flow rights of the largest family is only 26%. Effective control of a Taiwanese firm only requires the control of 15% of the cash flow rights. Using pyramid shareholdings to appoint relatives or close friends as directors and supervisors is a common Taiwanese practice (Claessens, Djankov, & Lang, 2000; La Porta, Lopez-De-Silanes, & Shleifer, 1999; Yeh, 2005; Yeh & Woidtke, 2005). Shyu and Lee (2009) find that among Taiwanese listed firms, 71% have average board members controlled by a family group. The conflict of interest between majority and minority shareholders is high when the majority shareholder's level of control is large enough to influence a firm's decision-making process (Chen & Ho, 2009). The controlling shareholders in Taiwan take advantage of the board through relative dominance and influence the strategic direction of a vote by gaining a board seat.

By examining the role of corporate governance in cash holding decisions among firms with different levels of cash holdings in Taiwan, this study focuses on the separation of control and cash flow rights (hereafter referred to as excess control rights). Control rights refer to controlling shareholder's ability to influence the way a firm is run, while the cash flow rights represent the controlling shareholder's share of the firm's losses or profits from their decision-making activities. The level of the excess control rights can be viewed as a proxy for the principal–agent type of conflicts (Bebchuk, Kraakman, & Triantis, 1999; Shyu & Lee, 2009).

There are two reasons to analyze this separation. First, when shareholder ownership goes beyond a certain point, the large shareholders gain dominant control and have incentive to expropriate wealth from minority shareholders (Shleifer & Vishny, 1997). Wealth expropriation incentive becomes stronger as manager cash flow rights deviate from their control rights (Anderson & Reeb, 2003). In the model proposed by Bebchuk et al. (1999), the agency costs that result from a firm's inefficient choices increase as the degree of separation between voting rights and cash flow rights increases. Studies by Claessens, Djankov, Fan, and Lang (2002), and La Porta et al. (1999) show that the separation of control rights and cash flow rights provides the controlling shareholders with both the ability and incentive to expropriate wealth from the firm. In general, larger voting rights entrench the controlling shareholders and give them the capacity to expropriate wealth from the firm, while lower cash flow rights reduce the controlling shareholders' share of firm losses from the expropriation activities. Cash holdings are the most liquid asset that can be expropriated among corporate wealth.

Second, concentrated corporate ownership structure is prevalent around the world, frequently occurring within a family, and Taiwan is no exception (Anderson, Mansi, & Reeb, 2003; Claessens et al., 2002). The conflict of interest between majority and minority shareholders within these family firms is high when the majority shareholder's level of control is large enough to influence a firm's decision-making process. Yeh et al. (2001) argue that the family-controlled shareholders may force the firm to adopt policies that fit their personal interests rather than those of the minority shareholders. Therefore, this study observes how the excess control rights influence the way a firm with high concentrated ownership makes cash decisions.

Using a sample of Taiwanese publicly listed companies in the Taiwan Economic Journal (TEJ) database from 1997 to 2009, this paper examines the effects of excess control rights on corporate cash policy among firms with different levels of cash holdings. Prior studies measure control rights by focusing on firms with differential voting rights (Chong, 2009; Claessens et al., 2002; Du & Dai, 2005; Fan & Wong, 2002; Marchica & Mura, 2005). The models in this study develop two indexes of excess control rights. One focuses on the difference between voting and cash flow rights, and the other observes the difference between seat control and cash flow rights. Additionally, the empirical distributions of the dependent variable "cash holdings" are highly skewed to the right; quantile regression is more robust to depart from normality and skewed tails (Mata & Machado, 1996). Therefore, this study applies the quantile regression method to investigate the impact of excess control rights on corporate cash policies.

Empirical findings indicate that there are fewer agency conflict problems in low cash holding firms where less excess control rights affect cash holdings positively; however, in high cash holding firms, excess control rights affect the cash holdings negatively. Specifically, the significantly positive effects in high cash holding firms are stronger than the significantly negative effects in low cash holding firms. Using seat control rights as a control rights measure obtains similar results. Furthermore, founding families can exert further influence on the corporate cash policy by holding the CEO position. When family members in low cash holding firms hold the CEO position, cash holding is higher compared to firms with outside CEOs. However, family members holding the CEO position affects cash holdings negatively in high cash holding firms.

The rest of the paper is organized as follows. Section 2 includes theories and empirical hypotheses on the determination of corporate cash holdings. Section 3 presents the empirical design and variable descriptions. Section 4 reports analysis results, and Section 5 offers a conclusion.

## 2. Theories and empirical hypothesis

Current literature on corporate cash holdings emphasizes three theories: the trade-off theory, the financial hierarchy theory, and the agency theory. The trade-off theory of cash holdings argues that firms have two motives to hold cash: transaction and precaution. The former suggests that firms that are likely to incur high transaction costs hold more liquid assets (Keynes, 1936), while the latter suggests that firms hold cash to better cope with adverse shocks when access to capital markets is costly. From the