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Firm structure and corporate cash holdings

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ABSTRACT

We analyze whether the organizational structure of firms (i.e., whether a firm is diversified or focused) affects their cash holdings. Using Compustat firm level and segment-level data, we find that diversified firms hold significantly less cash than their focused counterparts. Our results are robust to industry adjustments at the segment level and to different factors previously found to be important determinants of cash holdings. Using time-series, cross-sectional, and additional robustness tests we are able to attribute the lower cash holdings among diversified firms to complementary growth opportunities across the different segments of these firms and the availability of active internal capital markets. We find that the other theories that rely on the potentially effective use of asset sales of non-core segments of diversified firms to generate cash, and the increased agency/influence costs in diversified firms do not offer an economically significant explanation for the lower cash holdings among diversified firms.

1. Introduction

Cash holding, an important asset on firms' balance sheets, receives much attention from companies, investors, and analysts. Cash becomes especially important in recessions. The credit crunch that started in late 2007 has had a massive and sustained impact on the way many companies operate throughout the world. Companies with sufficient cash on hand may escape the need to tap into the increasingly costly and restrictive credit markets. Determinants of cash holdings have long been debated in the finance literature. Potential explanations range from the tradeoff between the marginal costs and benefits of holding cash to corporate governance.[1] Our paper examines a previously ignored but important relationship between firm structure and cash holdings. We show that diversified firms hold significantly less cash than focused firms. The lower level of cash holdings among diversified firms can be attributed to their access to internal capital markets, greater potential for asset sales, and higher agency costs in diversified firms.

The investment opportunities of individual segments of diversified firms may be imperfectly correlated, which suggests a possible role for internal capital market in these firms (Lamont, 1997; Shin and Stulz, 1998; Khanna and Tice, 2001). If firms hold cash for potential growth opportunities as in Opler et al. (1999) and to react to the underinvestment problem arising from financing related predation risk in imperfect product markets as in Haushalter et al. (2007), the imperfect correlation mentioned

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[1] See for example, Meltzer (1963), Miller and Orr, (1966), Mulligan (1997), Opler et al. (1999), Harford et al. (2003), Dittmar et al. (2003), Kalcheva and Lins (2005), Pinkowitz et al. (2006), Haushalter et al. (2007), Foley et al. (2007), Acharya et al. (2007), D'Mello et al. (2008), Harford et al. (2008), and Denis and Sibilkov (2010).

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above implies that diversified firms would need less cash on hand to meet their investment demands at any one point in time. Also, the availability of cash flow from one segment as potential capital for another segment reduces diversified firms' need for external capital and further reduces their benefits of holding cash.

In addition, diversified firms are more likely to be able to raise funds by selling their assets than focused firms. Shleifer and Vishny (1992) describe asset sales as a source of financing. A firm with assets that can be cheaply converted into cash can raise funds at a low cost by selling these assets. Therefore, given the size and breadth of assets owned, diversified firms are more likely to raise funds by selling substantial assets, especially the non-core segments, than single-segment firms, which in turn reduces the need for cash holdings. Consequently, firms with more than one segment should have lower levels of cash holdings relative to focused firms.

Lastly, diversified firms may face more severe agency problems that arise from segment-managers' intent to compete for firm-wide resources (Rajan et al., 2000). Segments with more influence in the firm will receive more resources, which could lead to over-investment and other dead-weight costs (Milgrom and Roberts, 1990; Bagwell and Zechner, 1993). Therefore, the marginal costs of holding cash and liquid assets, which generate these agency costs, are higher for diversified firms than for focused firms.[2] As a result, we would again expect diversified firms to hold less cash than focused firms in order to mitigate these agency costs.

Using Compustat data for U.S firms in the1988 to 2006 period, this paper finds that diversified firms hold significantly less cash than focused firms. This difference in cash holdings remains significant even after controlling for industry at the segment level, and other important determinants of cash holdings found in the literature. In addition, our paper shows that the presence of growth opportunities that are imperfectly correlated across segments in the firm, the increased potential for asset sales (of non-core assets), and the higher agency costs among diversified firms are all statistically significantly related to their lower cash holdings. However, we also find that with additional robustness tests, the imperfect correlations in growth across segments and the cross-segment financing possibilities arising from internal capital markets emerge as the most consistent and economically significant explanations for the lower cash holdings among diversified firms.

Our paper contributes to the cash holdings and the firm structure literatures in different and significant ways. Opler et al. (1999) provide a fundamental framework to study determinants of cash holdings and find several influential factors that determine cash holdings, including corporate growth prospects, short-term working capital, leverage, industry volatility, and firm size. Subsequent literature highlights the costs and benefits of cash holdings related to corporate governance (e.g., Dittmar et al., 2003; Pinkowitz et al., 2006; Kalcheva and Lins, 2007; Harford et al., 2008 among others), the predation risk in imperfect product markets (Haushalter et al., 2007), financial constraints (Denis and Sibilkov, 2010), and the financing of corporate investments (e.g., Almeida et al., 2004). Dittmar et al. (2003) find that firms in countries with poor protection of shareholder rights hold twice as much cash as firms in countries with good protection of shareholder rights. They argue that the evidence is consistent with the view that investors in countries with poor shareholder protection are unable to force managers to pay out the excess cash.

In a related vein, Dittmar and Mahrt-Smith (2007) show that the value of cash is also much lower in poorly governed firms. They show that in poorly governed firms, cash is dissipated in ways that significantly reduce future operating performance. Similarly, Harford et al. (2008) find that in firms with high anti-takeover provisions (i.e., firms with poor shareholder rights), cash is dissipated through value-destroying acquisitions. Consistent with this evidence, Kalcheva and Lins (2007) find that when external country-level governance is weak, although there is no general discount in value of high cash balance firms, there is a valuation discount to high cash balance firms where the managers are also expected to be entrenched.[3]

Our first significant contribution is that we examine the importance of several, previously ignored, *non-governance* related factors in explaining corporate cash holdings. We focus on organizational structure of firms by taking into account the cross-segment correlations in investment opportunities, and agency and asset structure aspects that are unique to diversified firms. We find clear evidence that firm structure influences cash management strategy and a diversified firm structure lowers the optimal level of cash holdings. As Harford et al. (2008) argue, unlike in international data, where there is substantial variation in the protection of shareholder rights across countries, in the U.S., governance is fairly uniform. This lack of significant variation in governance regimes, especially between focused and diversified firms, provides us with an opportunity to isolate the relative importance of non-governance factors in determining cash holdings.

Second, this paper also contributes to the existing literature on firm structure—diversified versus focused firms, in two distinct ways. First, our paper complements the work in Harford et al. (2003), Haushalter et al. (2007), Acharya et al. (2007), and Denis and Sibilkov (2010) all of whom either directly or indirectly argue that cash acts as a hedge for firms against financing and predation risk, especially in downturns. We show that in this regard, a diversified firm structure in itself may be a natural hedge and may act as a substitute for cash holding. In addition, prior papers, including Berger and Ofek (1995), Lamont (1997), Shin and Stulz (1998), and Khanna and Tice (2001), study the effectiveness of internal capital markets within diversified firms. We extend previous work on the efficient allocation of firm resources from internal capital markets to include cash holdings. Our finding that firms with higher influence costs have less cash holdings indicates that conglomerates respond to the higher agency costs by reducing their cash holdings.

Third, this paper develops a methodology similar to that used in Berger and Ofek (1995) to control for the industry effects on cash holdings, while previous literature uses industry dummy variables to control for the industry effects. More specifically, we use

[2] Costs due to these principal–agent conflicts fall under the general rubric of influence costs in the corporate governance literature.

[3] Faulkender and Wang (2006) also analyze the value that market places on cash holdings and how it varies cross-sectionally. In particular, they find that the marginal value of cash declines with large cash holdings, higher leverage, better access to capital markets, and as firms choose to distribute cash via dividends rather than repurchases.