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Cash holdings and bond returns around takeovers

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ABSTRACT

Using a large sample of 2712 unique U.S. domestic takeovers over the period 1993 to 2014, we show a negative relation between the level of cash holdings and post-announcement corporate bond returns. Our findings support the agency cost of cash holdings view and show that bondholders and shareholders share the same interests with respect to cash policy around takeovers. We further find that cash holdings are viewed less negatively by bondholders in firms with strong shareholders. This paper is the first to document the role of cash holdings on bondholder wealth around takeover announcements.

1. Introduction

U.S. corporations tend to hoard large sums of cash. For example, in 2011 alone, aggregate cash holdings by U.S. non-financial corporations amounted to $1.24 trillion. While the determinants of such large cash holdings are debated in the finance literature (Bates, Kahle, & Stulz, 2009; Pinkowitz, Stulz, & Williamson, 2013), there is widespread recognition that surplus funds contribute to value destroying behavior by corporate managers (Harford, 1999; Dittmar, Mahrt-Smith, & Servaes, 2003; Pinkowitz, Stulz, & Williamson, 2006; Kalcheva & Lins, 2007; and Dittmar & Mahrt-Smith, 2007). Existing empirical papers on the consequences of large corporate cash holdings have almost exclusively concentrated on the wealth effects for equity holders. In this paper we examine the wealth effects that large cash reserves place on acquiring firm bondholders. Our empirical tests are conducted in the context of corporate takeovers to overcome the reverse causality problem as one may argue that managers decide on the adequate level of corporate cash holdings based on bond prices, rather than bond prices being determined by corporate cash reserves. This potential endogeneity problem is conveniently overcome by observing how an exogenous shock (here, takeover announcement) affects bondholder wealth.

From a theoretical perspective, the impact that cash holdings have on bondholder wealth around takeovers is rather unclear. There are two competing hypotheses. The first hypothesis, termed the *agency conflict hypothesis*, is an extension of the argument put forward by Harford (1999) in the context of equity holders. Essentially, Harford (1999) argues that large cash reserves reduce the disciplinary oversight powers of capital markets, thus enabling managers to make acquisitions which serve their own interests (such as empire building) rather than those of shareholders. While shareholders, being the residual claimants, are most exposed to the financial consequences of poor quality takeover deals, bad decisions with respect to takeovers also have the potential to affect bondholders. For example, acquisitions which reduce the value of the acquirer as a result of overpaying for the target can increase the likelihood of default. The immediate implication of the first hypothesis is that a negative association exists between the level of cash holdings and the post-announcement bond returns. The *agency conflict hypothesis* hence predicts that bondholder and shareholder interests align around takeovers, and that stronger shareholder oversight of managers is beneficial to bondholders.

The second hypothesis, termed the *precautionary motive hypothesis*, postulates that cash reserves offer a buffer against adverse cash flow shocks. This buffer is akin to an insurance policy, whereby future losses are absorbed by cash reserves. Cash rich firms are therefore better able to absorb the consequences of potentially wealth destroying acquisitions. As a consequence, the bond markets should apply a lower discount rate to cash rich acquirers who are less likely to default on their obligation. Accordingly, the *precautionary motive hypothesis* postulates that all else equal, the bond market responds more favorably to acquisitions made by cash rich firms. Consistent with this argument, cash rich acquirers which hold cash due to precautionary motives (rather as a

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tool to gain independence from outside capital providers) are expected to be viewed more positively by the bond market compared with cash rich firms which hold cash for extraneous reasons.

We test these two competing hypotheses by utilizing a large sample of all U.S. domestic acquirers at the intersection of the SDC, FISD and COMPUSTAT databases between the period January 1993 and December 2014.[1] We calculate the post-takeover announcement abnormal bond returns over a monthly, half-yearly, and yearly period. After controlling for the acquirer's debt characteristics, firm characteristics, and deal characteristics as well as including industry and year fixed effects, we document a strong and robust negative association between the level of acquirer cash reserves and the post-announcement abnormal bond returns. This negative association is most pronounced for the longer event windows (half-yearly and yearly). The effect is also economically significant. For example, a one standard deviation increase in the level of cash holdings is associated with a 50% decrease in the post-announcement abnormal bond returns (over the half-yearly window) relative to the cross-sectional median. These results are consistent with the *agency conflict hypothesis*, and suggest that shareholder and bondholder interests are aligned with respect to the way that large cash reserves are viewed around takeovers.

The main findings in our study are robust to a number of additional tests which utilize further control variables. Specifically, we address the possibility that the post-announcement riskiness of the combined firm is jointly correlated with the level of cash holdings and the post-announcement bond returns, by controlling for numerous factors which address co-insurance factors. These include variables which capture differentials between the targets and acquirers bond rating, bond maturity, and debt levels. We also utilize the change in the KMV-Merton distance to default measure to control for possible changes in firm-level riskiness in the post-announcement period. None of these factors are found to alter the negative association between cash reserves and the post-announcement bond returns. In addition, we control for CEO level behavioral characteristics, such as CEO overconfidence, to exclude the possibility that CEO characteristics rather than the bond market's perception of cash reserves, is driving our results. The main empirical results remain unchanged.

In the final avenue of inquiry, we further address the two hypotheses. First, we tests whether the negative association between cash reserves and the post-announcement bond-returns is weaker when shareholder power is stronger. Since the *agency conflict hypothesis* postulates that shareholder and bondholder interests are aligned around corporate takeovers, we would expect bondholder reaction to acquisitions made by a cash rich firm to be less negative when shareholders have greater ability to align managerial interests with their own. Utilizing a number of measures of shareholder power (total institutional ownership, total dedicated institutional ownership, total long term institutional ownership, anti-takeover provision index, and portion of independent board members) we find that the negative association reported in the baseline results is weaker when shareholder power is strong. Additional tests on the validity of the *precautionary motive hypothesis*, which examine whether the negative association reported in the baseline results is weaker when acquirers hold cash for precautionary purposes, find no support for the second hypothesis.

Overall, the results presented in this paper offer strong support for the notion that bondholders react negatively to acquisitions made by cash rich firms. While prior literature has examined the impact that large cash holdings have for shareholders, this is the first study to look at the consequences of cash holdings for bondholders. The results show that despite the underlying conflict between shareholder and bondholder interests, both these stakeholders are equally negatively affected by the accumulation of large cash reserves by firm managers. Taken in the context of the wider literature, the findings show that large cash reserves are not only detrimental to shareholders around takeovers, but also to bondholders.

This study makes a significant contribution to the literature on corporate cash holdings by showing that corporate cash reserves play an important role in increasing bond yields. Prior literature proposes numerous reasons behind and consequences of corporate cash holdings. These include: avoiding transaction costs when converting a non-cash financial asset into cash (Mulligan, 1997); better coping with adverse shocks (Whalen, 1966; Acharya, Almeida, & Campello, 2007); avoiding the repatriation of foreign earnings due to tax considerations (Foley, Hartzell, Titman, & Twite, 2007); and managerial agency problems (Jensen, 1986; Dittmar et al., 2003). We identify another significant consequence of large corporate cash reserves, namely the detrimental impact of increased bond yields. Given that debt is the predominant source of external funds, firms should have an incentive to pursue corporate policies which are viewed favorably by bondholders. The observation that many firms hold large cash reserves even though they are viewed negatively by bondholders is a puzzling one.

Second, this paper contributes to the literature on bondholder wealth effects around takeovers. We show that cash reserves are a key factor driving acquiring firm bondholder returns. The majority of papers exploring the consequences of takeovers on bondholder wealth concentrate on the factors affecting target firm bondholders. For example, Low, Makhija, and Sanders (2008) examine the impact of acquiring firm shareholder power on target firm bondholder wealth, and find that target bondholder wealth increases with acquiring firm shareholder power. Similarly, Renneboog and Szilagyi (2007) show that target bondholder wealth is significantly affected by the creditor protection laws of the acquiring firm. Although these studies shed important light on the factors which drive target bondholder wealth around takeovers, they do not provide any evidence on how acquiring firm bondholders are affected by takeovers. Billett, King, and Mauer (2004) examine target and acquiring firm response to takeovers, primarily from the perspective of co-insurance possibilities around mergers and acquisitions. Although they show that acquiring firm bondholder wealth is negatively affected by takeovers, they do not find a strong link between co-insurance factors and acquiring firm response to mergers and acquisitions.

Finally, this paper contributes to the literature on bondholder-shareholder conflicts. We show that with respect to large cash reserves, shareholders and bondholders share an equal distrust of managers hoarding large amounts of cash. The evidence on the effect of shareholder power on bondholder wealth is mixed and inconclusive. For example, Klock, Mansi, and Maxwell (2005) show that shareholder power is detrimental to bondholder wealth while Cremers, Nair, and Wei (2007) show that large shareholders help bondholders by monitoring managers, although their presence also increases the likelihood of hostile takeovers that can hurt bondholders. Aslan, Kumar, and Maraachlian (2010) find that shareholder power is beneficial for bondholders. In the context of takeovers, our results suggest that bondholders and shareholders have similar incentives in terms of the role of corporate cash reserves, with the detrimental effect of cash reserved on bond yields decreasing with shareholder power. Our results are most closely related to Acharya, Davydenko, and Strebulaev (2012), who show that cash holdings have an effect on credit spreads.

The rest of the study is organized as follow. Section 2 reviews related literature and develop two competing testable hypotheses. Section 3 describes data and summary statistics. Section 4 presents the main empirical analysis. Section 5 examines additional analysis on the main hypotheses and Section 6 concludes the study.

2. Literature review and hypothesis development

The bulk of the finance literature dealing with the economic consequences of takeovers concentrates on the equity market (Jensen &

[1] We finish our sample in 2014, since we need at least one years' worth of bond data following the takeover announcement. As our bond data ends in 2015, we must end our sample in 2014.