



Capital Structure and Cash Holding

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Abstract. This paper reviews some classical theories such as the Pecking order theory, free cash flow theory, and trade-off model. It also mentions some of the research methods used by the authors, such as the modified event-study approach, in collecting data in a representative sample. It also mentions some of the research methods used by the authors such as the modified event-study approach and collects a large number of data from representative countries to reduce errors. The paper also discusses the research and results of some papers that discuss the determinants of cash holdings of companies and the significance of cash holdings.

Keywords: Cash holdings · Capital structure · Leverage

1 Introduction

There are several important theories in the study of capital structure and this paper reviews mainly the pecking order theory and agency theory first. The four main determinants of cash holdings are also mentioned in this paper transaction motive, precautionary motive, tax, and agency motive. Leverage is the link between cash holdings and capital structure, its relationship with cash holdings is also referred to in this paper. The rest of this paper is presented as follows. Section 1 reviews the main theories about capital structure and cash holdings. Section 2 includes some empirical research and discusses some individual papers. Finally, Sect. 3 presents our conclusion.

2 Theory Summary

Myers and Majluf point out in the pecking order theory that with information asymmetric, firms prefer to use internal financing first, and if the retained earnings are not enough for new investments, they will use debt and then equity as the influence of price is lower when debt issues [1]. This indicates that the firms do not have a cash holding level target. More specifically, large companies are more dependent on debt with a lower probability of falling into financial distress. They take on more leverage with lower

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S. Kadry et al. (Eds.): BDEIM 2022, AEBMR 233, pp. 537–544, 2023.

https://doi.org/10.2991/978-94-6463-124-1_63

expected bankruptcy costs [2]. Frank and Goyal also mentioned that big firms follow the pecking order theory better than small firms as small firms use more equity finance than big firms [3].

According to Jensen, Conflicts of interest between managers and shareholders over the allocation of free cash flows can create agency costs [4]. Shareholders want managers to pay dividends rather than invest with low efficiency. Managers prefer to accumulate cash thus increasing the number of assets they can control and gaining discretionary power over their investment decisions. Debt can reduce agency costs by reducing the cash flow available to managers for discretionary use. Moreover, firms can be more effective with the threat of failure to pay the debt.

Bates, Kahle, and Stulz categorize the reasons why companies hold cash into four facets [5]. First is transaction motive, firms need cash for the everyday transaction. The second reason is the precautionary motive. Firms can better deal with unfavorable shocks with cash holdings when the cost of access to capital markets is high. The third reason relates to tax. Multinational firms would hold more cash to reduce the tax burden of repatriating profits from foreign operations. The last reason is about agency motive, like mentioned before, the manager would hold cash rather than pay dividends to shareholders. Dittmar, Mahrt-Smith, and Servaes also consider agency problems as a factor that influences a company's cash holdings [6]. They found that firms would hold more cash in countries where shareholder rights are not protected well because shareholders cannot force managers to surrender excessive cash balances.

Faulkender and Wang believe the value of an additional dollar of cash reserves varies depending on the use: (1) paying dividends or repurchasing shares (2) reducing the quantity of cash that needs to be raised in the capital markets (3) repayment of debt or other liabilities. Furthermore, the marginal value of one additional dollar of cash is higher with firms that have low leverage [7]. On the contrary, the marginal value of cash is higher for firms with insufficient internal funds and the need to raise money from external markets for investments. Thus, the marginal value of cash should decrease when firms hold more cash because firms tend to disgorge cash rather than raise money. However, Brav also argues that since private firms rely more on internal financing. Cash holdings are more performance sensitive [8]. Public firms enhance investment when profitability increases while private firms hoard cash. Opler et al. also proved that companies with the easiest access to capital markets, such as big corporations and companies with credit ratings, are likely to hold less cash [9].

Pecking order theory, free cash flow theory, and trade-off model have slightly different explanations for the relationship between cash flow and leverage. According to Ferreira and Vilela, for the trade-off model, on the one hand, as the rigid amortization schedule has put a strain on the company's financial management, leverage could raise the probability of bankruptcy [10]. Thus, firms with high leverage will increase cash holdings. On the other hand, as the leverage ratio represents a company's ability to issue debt, firms with low leverage would have more cash. Hence, the relationship between leverage and cash holding is uncertain. For the pecking order theory, the debt increases if the investment is greater than retained earnings and decreases when the investment is less than retained earnings. As a result, cash holdings decrease when investment is

greater than retained earnings and increase when investment is less than retained earnings. Debt and cash holdings follow a negative relationship. Under the free cash flow theory, managers of less leveraged companies have more discretion as they are subject to less monitoring. Hence, firms with high leverage hold less cash. As pointed out by Ozkan and Ozkan, firms with lower leverage have higher cash holdings [11]. If high leverage represents the ability of companies to issue debt, companies may use borrowing as an alternative to holding large quantities of cash and marketable securities. In addition, the cost of holding large amounts of cash is higher in debt financing.

2.1 Empirical Literature Summary

2.1.1 Which Papers Are the Most Important Papers Surveyed? Why?

Corporate Financial Policy and the Value of Cash and the financial determinants of corporate cash holdings: Evidence from some emerging markets are the most critical papers surveyed [7, 12]. What makes Corporate Financial Policy and the Value of Cash so significant is that the authors explore hypotheses about how the marginal value of cash varies with firm features. At the same time, many conclusions have been drawn through verification. “The Financial Affairs of Corporate Cash Holdings: Evidence from some emerging markets” is also a critical essay. This paper examines developing countries’ corporate cash holdings [12]. The authors examine the influence of capital structure and dividend policies on cash holdings in some countries.

The first is that his data are collected from many representative countries that can be used as examples, such as China, India, Russia, Britain, and so on. The second point is that the number of companies he collected is enormous, which dramatically reduces the error. Moreover, their research includes 83 firms from Brazil, 93 companies from Russia, 542 companies from India, and 494 companies in China which are all non-financial companies. Leveraged companies prefer to hoard cash owing to the higher possibility of financial distress. It is said that with more debt, the cash level declines. Thus, companies with more liquid assets can use covert these assets to cash and in turn, have a lower cash holding level. Many early studies have considered and proved whether there are economies of scale in Cash Holding, including Frazer and Meltzer [13, 14]. In this paper, the authors assume that there is a cost to buying and selling financial and tangible assets, as well as a cost to raising external capital. If a company is short of liquid assets, it can do so by reducing investments or dividends or by selling securities or assets to raise money from outside. The authors examine firms’ cash holding determinants from 1971 to 1994. The results show that more growth and risky firms tend to hold more capital, while large firms tend to hold less cash. Companies hold liquid assets to make sure that they can continue to invest when party cash flows are too expensive relative to external funds. This indicates that an essential driver of cash hoarding is risk aversion, and a fundamental question for further research is whether excess cash causes firms to avoid making necessary changes when they are in trouble.

The authors use a modified event-study approach to examine the market within a company’s fiscal year to test empirical predictions about crossovers. Changes value in the market cash. The authors’ found data is logical with most assumptions. The authors estimate the sample’s average firm-year marginal cash value to be \$0.94. Shareholders

of companies with low cash holdings, low leverage, and restricted access to financial markets place an attractive amount on additional cash. The average for embarrassed company years is 28, and the average for constrained company years is 28. The results show that the market perceives factors that make external financing expensive. Maintaining liquidity at higher valuations consistently creates more value than comparable companies. Nonetheless, the data also show the boost in value is at the currency level, which means that there may be an increase in cash that the company holds in return. There are both tax things and bureau costs. Not like studies focusing on cross-sectional changes in cash holdings. The authors target the goal of the values identified as these cross-sectional changes. The authors' approach allows calculating the value of liquidity more accurate rather than studying differences in cash levels across firms or over time. Thus, it is possible to calculate the size of value losses related to the market frictions and the range can beat these losses in liquidity. In consideration of the range to which price-to-book ratios are used to calculation result creation, considering potential biases may be related to them, this method of analyzing value changes have many functions, because there are available time sequence changes in the hidden company characteristics, estimating the market's reaction to these changes should be available to give equity holders a more a precise estimate of the value of these beneficial characteristics.

2.2 Discussion of Individual Papers

Al-Najjar states that there are some differences between the emerging markets of the US and the UK in governance and institutional framework by doing some cross-country studies about cash holding and getting a better comprehension of why firms hold cash [12]. The author found that there are 5-leverage, dividend payout, liquidity, advantage, and scale of the enterprise that make a difference in cash holdings. It is important to note that these findings might raise questions since certain independent factors differ over the entire nation while others have a smaller overall effect. Since the institutional environments of various nations differ, this is to be anticipated. There are some people who use emerging markets like India, Brazil, China, and Russia. Their findings suggest that financial theory also applies to the international environment. Therefore, the author's results are comparable to those published in earlier research and offer new information about the economic factors that influence cash holdings throughout the world. In general, the author demonstrates the importance of trade-off theory, pecking order theory, and agency cost theory in explaining financial actions, such as cash holdings in developing nations. According to the author's research, developing markets and more established nations have similar cash holdings-determining criteria. Cash holdings are influenced by several factors, including leverage, dividend payments, profitability, liquidity, and corporate size.

Overall, this study is important from a global viewpoint because it demonstrates that, while having diverse financial and governance institutions, developing nations have the same financial factors. As a result, businesses in these nations have managed their cash holdings in a pattern that is quite similar. The topic of company cash holdings in emerging nations merits greater investigation, including a look at internal corporate governance elements that could have an impact on financial judgments. It is necessary to look at board qualities, audit characteristics, and CEO traits.

Faulkender and Wang state that they use a modified event-study approach to examine firm fiscal year market returns to examine empirical hypotheses regarding cross-sectional changes in cash market values. The results they found were consistent with all of the author's hypotheses [7]. Categorically, they calculate that the marginal value of cash is \$0.94 for the typical firm year. The extra cash is particularly valuable to shareholders of businesses with low levels of cash reserves, low levels of debt, and limited access to financial markets. Depending on the constrained criteria, the average yearly cash margin for limited firms is 28–63 cents greater than the average for unconstrained enterprises. Results are better when the author concentrates just on a subset of businesses that could require outside funding soon.

From the research results, the high cost of external financing is because the market perceives the existence of market friction, and companies with higher valuations to maintain liquidity will have an advantage in the market, which is related to the ability of these companies to have less internal cash than those companies of peer companies that create more value. It also indicates that additional funds' value declines at the cash level, suggesting that there may have a limit on the sum of money that corporations may get as compensation for stock ownership. This conclusion is in line with tax ramifications and agency expenses.

The author examines the values associated with these cross-sectional differences rather than cross-sectional disparities in cash holdings. We can evaluate the value of liquidity more precisely using the author's method than by comparing variations in cash levels between businesses or over time. The number of value losses caused by the market frictions the author examines and the extent to which liquidity may offset these losses can thus be estimated by the author. Methods like the authors for examining value changes may have many different uses depending on how much the market-to-book ratio is used to estimate value creation and the possible bias the author believes may relate to it. Estimating the market's reaction to these changes should give a more accurate assessment of the worth to shareholders of these advantageous features if there are enough time changes in the underlying business features.

2.3 Some Other Papers

Leland and Toft develop an optimal leveraged and risky corporate bond price model for any bond maturity [15]. Bankruptcy is endogenously decided, which will be determined by the maturity of the debt and its amount. The value conditions and flow conditions describing the bankruptcy point are given. It also illustrates that bankruptcy can occur when the value of assets is lower or higher than the principal value of the debt. Insufficient cash flow relative to debt service requirements does not necessarily lead to default. Guney, Ozkan, and Ozkan state that Using firm-level data from Japan, France, Germany, the U.K., and the U.S., the authors investigate firms' cash-holding decisions [16]. We think that our study adds to our knowledge of corporate cash-holding behavior in two important ways. This article begins by carefully examining the connection between cash holdings and leverage. The authors point out that companies' actions about borrowing have a non-linear influence on their choices regarding cash holding. The reason for this, according to the authors, is that while leverage can replace cash holdings, it also raises

the risk of financial disaster. As a result, a negative relationship is first shown at low leverage levels, while a positive relationship is seen at high leverage levels.

The relevance of corporate governance concerns is the writers' second main point of emphasis. The study is done while the author considers institutional and legal aspects such as ownership concentration, level of creditor protection, and shareholder protection. According to the authors, robust creditor protection makes financial difficulties more likely to result in bankruptcy, which calls for more wealth accumulation as a preventative measure. Finally, the authors analyze whether the nature of the link between cash and leverage, by interacting leverage with these legal and institutional features, differs according to these country-specific variables.

The authors discover that a firm's cash holdings are significantly influenced by institutional, legal, and firm-specific variables. The authors' findings show that a firm's cash policy can be impacted by the level of investor protection. More precisely, the authors discover that companies seem to keep lesser cash holdings when there is big protection for investors and increased ownership concentration. Additionally, the influence of leverage on cash flow changes has institutional and legal aspects. Minton and Wruck state that the author's analysis provides a new understanding of financially conservative firms' behavior as well as some future research. The authors document that conservative firms follow a hierarchical financial policy [17]. Conservative companies have higher capital surpluses and larger cash balances than more leveraged companies. These internal funds are sufficient to fund most of the business and discretionary spending. However, low-leverage firms do not strictly follow the hierarchy-ordering theory, which assumes that the hierarchy of financial instruments is inflexible. The finding draws attention to seemingly inconsistent financing decisions by financially conservative companies and others. For example, why and under what circumstances would a company raise capital externally at the same time and carry a large cash balance? Or raise outside equity and do share buybacks?

3 Conclusion

In order to find the organic connection between capital structure, cash holdings, and financial slack, we mainly study in three ways. The first is through theories such as pecking order theory, and agency cost theory, and we understand that the factors affecting cash holding are diverse, including leverage, dividend payment, liquidity, profitability, and business size, etc. Second, through in-depth research on factors, such as the most suitable leverage ratio and the most suitable capital structure, we have a deeper understanding of cash holdings, and how to judge whether a company has benign cash holdings from various angles, It's not that the more the better, it's about the company's own liabilities. Finally, we summarize and compare the searched literature, summarize the key parts, and theoretically generate a comprehensive cognition of cash holding according to the logical relationship in it. We start with leverage to understand its impact on cash holding in the capital structure, so in the future we plan to study how it affects cash holding from the remaining aspects such as liquidity or company size, and finally how each aspect is affected The precise effect of cash holding is to do an aggregate to help the company hold cash better in theory.

Acknowledgment. All authors contributed equally to this work and should be considered co-first authors.

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