

A Survey of the Literature on the Influence of Operating Risk (Cash Flow Volatility) on Capital Structure

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ABSTRACT

The paper aims to give direct evidence that operational risk (cash flow volatility) will continue being a vital negative ascertainment of investment even after managing the means of approaching capital externally. Further, the volatility of cash flow raises these costs. Volatility cash flow is linked to small dividend payout ranking, lower analyst following, higher weighted average prices of capital, bigger bid-ask spreads, worse S&P bond scaling, and higher yields-to-maturity. The results linked to capital costs, the importance of cash flow volatility, and investment decision looking at the costs mean that the investment sensitivity to volatility does not result as volatility is an agent for risk project. Moreover, cash flow volatility is generally linked to investment as it raises the possibility that an entity will require market capital. It also raises the costs of doing so.

Keywords: *operating risk, cash flow volatility, capital structure*

1. INTRODUCTION

Firstly, the types of assets, which is organizations having a high proportion of assets that are intangible like development and research are to hold low debt, whereas those with assets mainly tangible ones are to hold high debt as their financial distress costs are likely lower compared to those of development and research organizations. Second, the tax environment is based on the MM perspective. For instance, in the case of income tax, corporate quality will rise with the growth of debt level because of tax-sheltered interests. Shareholders, in this case, can also benefit further. Thus, with more debt, enterprises garner more excellent value. So, organizations with high taxable income rely more on debt than companies with low income taxed. Because debt contains tax impact, it can make the organization reasonable to tax avoidance.

The third factor is the current leverage level of the firms. Debt provides a tax advantage for the organization. Though, the costs of bankruptcy or, generally, the financial discomfort can offset some of the advantages of borrowing. While selecting the structure

for capital, firms are to consider the current debt ratio. When the debt ratio of firms is low, then leverage can be offered a chance. Moreover, costs of agency also are a factor. In agreement with the agency perspective, debt financing has a powerful incentive impact, and debt is considered a mandatory mechanism. This kind of mechanism is able to encourage managers or leaders to make better investment decisions, enjoy more minor, and work harder, therefore, reducing the costs of an agency brought about by the separation of the two rights; However, financing of debt may result to another agency cost, meaning, the cost of the firm allowing the supervision of creditors. The balanced ownership structure is ascertained by the balance between the prices of debt agencies and the price of equity agencies.

In addition, according to the optimal sequence financing theory, debt financing, and equity financing, the rigid constraint characteristics of debt financing can send a positive signal to investors, improve the stock price, promote the increase of enterprise value. On the other hand, equity financing often means the weakness of enterprise financing, and investors lose confidence in the development of enterprises, thus misjudging the market quality of enterprises. Compared with the

financing of the debt, internal financing shows a good development trend of firms and can improve the intensity of feeling good from investors and further enhance stock prices. Thus, the possible financing order of the firm becomes internal financing larger than debt financing and more significant than stock financing. Enterprise size should be positively correlated with asset-liability ratio, mainly for the following reasons: First, compared with small firms, majorly Listed organizations will receive more attention from the public, so big enterprises will have more information disclosure that is the generally transparent and low level of information asymmetry. Furthermore, big firms pay more focus to their image and possibly have a high level of trust. As a result, big enterprises are likely to gain the confidence of lenders and obtain money in loan form.

2.THEORIES OF CAPITAL STRUCTURE

This strand of research points out the link between operating capital and risk structure. These studies illustrated that the cash flow volatility possibly affects the leverage level of the firm. Thus, it should consider two different perspectives, including pecking order and trade-off perspectives. Trade-off perspective can assume those organizations with high risk. According to Frank and Goyal, trade-off theory illustrates the leverage of firm drops due to increasing volatility of cash flows to balance the debt costs, such as bankruptcy costs and financial discomfort [1]. When cash flow volatility rises, the possibility of facing financial discomfort is raised. Based on the trade-off perspective, the capital structure can be identified between debt and debt cost advantages. The firm can harmonize tax advantages for debt against the deadweight costs from bankruptcy. According to Frank and Goyal higher-volatility-cash-flow companies will face the more expected cost of financial discomfort [1]. Thus, these companies are to utilize less debt. Higher cash flow volatility can decrease the possibility of entirely using tax shields. The trade-off theory claimed that expected bankruptcy costs increase when profitability declines, leading to less profitable firms and causing lower leverage targets.

According to Myers, three different fund sources are suitable for companies. These sources include; equity, debt, and retained earnings. In these sources, equity brings adverse choices of selection, debt comes with small adverse choices of selection, and retained earnings can reduce this challenge. Thus, retained earnings are more suitable than external financing as a source of funds. When they are incomplete, financing debt is more applicable. On the other hand, equity can be utilized as the final resource. Based on pecking-order theory, firms can set leverage down continuously while investments are persistently related to retained earnings. As for predictions of pecking-order theory, dividend-payers can keep their payout ratio low. Harmonizing financing costs

in a pecking order will push companies to have higher leverage—a lower chance of giving out new risky securities or maybe the profitable initial investments. With low net cash flows, companies will have significant volatile net price flows and a higher chance to have smaller dividend payouts and smaller leverage. Based on the research of Leland, the optimal leverage and associated yield spread in many environments, which are long-term unprotected debt and protected debt [2]. There are dynamic models of capital structure: default affects the future use of debt tax shields. Issuing new debt can affect the optimal debt ratio and transaction costs.

Minton and Schrand agree that the volatility price flow is associated positively with the company's cost of approaching external capital [3]. Due to capital market imperfections, which are information contracting and asymmetry, volatility of cash flow can affect capital costs. The company with higher cash flow volatility will face more significant equity costs of capital. In addition, there are three pieces of evidence related the cash flow volatility in capital structure. First, when a firm's cost-of-reaching out-external-capital is controlled, there is still a negative relationship among the volatility. Then, exists a linear relationship between levels of investment and costs of capital. Second, a firm with high sensitivity of cash flow volatility has a higher cost of accessing external capital. Third, a positive link between the cost of accessing capital externally and cash flow volatility. Higher cash flow volatility can cause lower S&P ratings of bonds and greater yield-to-maturity. Moreover, the greater cash flow volatility can cause lower dividend payout rates, bigger bid-ask spreads, and possibly more significant weighted average capital costs. There is evidence that cash flow volatility causes more minor average degrees of investment on advertising expense, development and research costs, and capital expenditures. High volatility of cash flow company tends to apply short-term debt and possibly the non-financial liabilities.

3.EMPIRICAL LITERATURE

It is known that more considerable volatility in price flow is linked with more minor average degrees of investment in advertising, expenditures of capital, and R&D. It showed that companies do not apply capital markets externally in fulfilling the cover of price flow downfalls forgo investment permanently.

Harris provides an understanding review on two major perspectives of the structure of capital: static trade off perspective and pecking order perspective in consideration of achieving an optimal structure of capital [4]. Researchers arguably believed that taxes, adverse selection, agency conflicts, costs of transactions, and bankruptcy costs had been characterized as essential explanations of the corporate utilize of financing debt which has been utilized as a point of discussion in both

perspectives. Therefore, this article also shows a new structure of capital model based on four factors well presented in literature form: decision-makers overconfidence, taxes, costs of bankruptcy, and asymmetric information. The model can simultaneously explain several facts over the structure of capital involving those that remain puzzling from existing perspectives [4]. First, unlike several advanced studies on capital structure, a closed-form solution is extracted for most top results. Secondly, the study about Ikromov gave hypotheses including; if the anticipated quality of two things (assets) have equal cash flows, the quality of the asset having massive volatile price flows will be smaller through applying the LV treatment and data of Median Transaction Prices [5]. Four different results were provided in this study: first, the market feels more efficient if cash flows are never volatile. Secondly, the market is generally inefficient if price flows are highly volatile. Thirdly, the market prices are higher when cash flows are small in volatile. Lastly, prices are highly volatile when cash flows are small in volatility.

In addition, Chang mainly considered by financially constrained companies. Constrained companies give out debt with low volatility but will have trouble deleveraging the response to raised volatility [6]. These constrained companies also hide the proceeds mainly from the debt side undertaken in the period of low-volatility regimes, though invest the proceeds from the debt side when there is high volatility. At the same time, Keefe conclude that big volatile cash flow companies tend to lower the debt considered long term though remaining to utilize non-financial liabilities short term [7]. The analysis showed that massive cash flow volatile companies tend to spend more on development and research, have a considerable market to book ratio, and are less profitable than a low cash flow volatile company. Evan comprehensively discussed the explanatory power of different present perspectives of optimal capital structure [8].

The essays we study test a central hypothesis of; if the anticipated qualities of two things (assets) have equal cash flows, then the quality of the things (assets) having massive volatility cash flows will be much smaller. The data reject the hypothesis by applying the empirical test about the residual income, the dividend discount, and the discounted cash flows models. Over the test, the data indicated that costs are highly volatile when cash flows are small in volatility as massive price flow volatile companies tend to get low on debts considered long term while continuing to utilize non-financial liabilities and short term.

4.DISCUSSION OF INDIVIDUAL PAPERS

This article outlines the relationship between the structure of capital and the volatility of cash flow. The

choice is driven by the desire for finance constraints from companies to ensure future financial flexibility. There are several parts to prove this point. The first part briefly reviews the literature on capital structure and cash flow volatility. The second part describes some data and methods. Then, in the third part, empirical research results are presented on companies' response to volatility innovation, the use of issuance proceeds, and the extent to which financially stressed companies can deleverage after positive volatility shocks. Finally, in conclusion, the impact of volatility based on optimal leverage is expected to be negative, as greater volatility raises the possibility of financial discomfort and decreases the current value of the tax shield.

The desired financial flexibility of the company has something to do with cash flow. The first is the rolling widow method, which measures volatility by looking at the realized standard deviation of cash flows over a given number of past cycles. The advantage of this method is simple, but this method also has disadvantages. First, there will be a long and slow adaptation process to cash flow fluctuations. Second, when past innovations exit the rolling window, the rolling window leads to a decline in the impact of past innovations in terms of volatility. The second approach is the difference in past stock returns. The third approach is to model cash flow volatility as an absolute change in earnings over the previous period. The fourth method is to study the prediction of return volatility from exchange-traded out-of-the-money calls and put prices, but this method also has disadvantages. First, this approach leads to endogeneity problems since volatility also explains leverage. Second, it is limited to large public companies with liquid options, mainly in the liquid options market without shares.

5.DATA AND METHODS

First, we talked about estimating volatility. Measure the volatility in cash flows as the square root of the variance of the industry's operating cash flows, as doing so has several advantages:

The endogenous aspect is mitigated since the inverse causality between industry volatility and corporate capital structure will not occur. Industry-level estimates provide a long time series, so more accurate estimates of volatility can be obtained by using GARCH. A lasting shock to volatility versus a temporary shock is introduced. A feature of GARCH is that when GARCH is stationary, the expected volatility half-life can be calculated. At the same time, it is also possible to test whether the relationship between bars and volatility innovation changes with the expected persistence of volatility innovation. In this paper, the author calculates the half-life of the wave process. Volatility innovation has more than twice the impact on leverage in high-half-life industries. Furthermore, volatility also significantly

impacts leverage in sectors where shocks are less persistent.

In addition, volatility and profitability tools are provided. However, there are some difficulties in measuring the result on capital structure choice using cash flow volatility, as the negative correlation between volatility shock and profitability shock. Therefore, to identify the outcome on leverage using volatility while making causal inferences, industry profits and tools are required. Therefore, the identification strategy is adopted in this paper, and the instrument's volatility changes with the change of tariff. The results show that the volatility measured by GARCH is very sensitive to industry-level changes in the competitive environment of firms. Nevertheless, tariff changes can also affect profitability levels, potentially confusing interpretations of the effect of tariff reductions on leverage.

Moreover, import competition may affect capital structure by changing future profitability, future volatility, or both, making it difficult to conclude the channels through which competitive changes affect leverage. Therefore, to solve these problems, the paper uses another tool to measure volatility and profitability. The exchange rate may affect industry profits and volatility by increasing product market competition. After using trade-weighted measures, the impact of exchange rate changes will vary in different industries according to the degree of import penetration and the industry's focus on exports. The advantage of this approach is that it has nothing to do with corporate leverage. Finally, two steps are used to discuss how uncertainty affects capital structure. First, inspect the impact of volatility on the market and book leverage ratio. Then, in the second step, the impact of volatility on securities issuance and repurchase activity is measured.

6. COMPANIES THAT RESPOND TO CHANGES IN VOLATILITY

According to financial theory, enterprises with financial constraints are more sensitive to fluctuations than those without. It is found that the impact of cash flow fluctuation on constrained enterprises is more significant than that of unconstrained enterprises. To determine which companies, respond to volatility, the paper uses methods such as whether they pay dividends or have credit ratings to identify captive companies. However, there is a potential problem that leverage regression captures the effects of passive changes in leverage rather than changes in management activities. To solve this problem, important financing events need to be defined. This approach has the advantage of isolating changes in leverage caused by behavior rather than passive leverage caused by changes in the value of a company's liabilities. At the same time, this creates four important financing events: equity issuance, debt issuance, debt reduction, and equity repurchase. The

PROBIT model is utilized to weigh the impact of cash flow fluctuation on securities issuance.

$$Pr(Event_{it}) = a + b Volatility_{jt} + c Profitability_{jt} + d X_{it-1} + e Y_{t-1} + SIC_i + Year_t + e_t$$

The results in this model show that the reduction of volatility significantly affects the possibility of increasing leverage transactions for firms facing financing friction in financing. In addition, the asymmetric effect of volatility on leveraged-increase transactions compared with deleveraging transactions shows that financing friction may prevent firms from deleveraging when volatility increases significantly.

7. CONCLUSION

This study discusses the link or relationship between the structure of capital and volatility of cash flow, which are many factors related to cash flow volatility. Therefore, cash flow volatility can be related to smaller investments as companies have smaller costs of reaching out to external capital markets. On the other hand, the volatility of cash flow increases the costs of increasing the likelihood, which firm should be needed to access the capital market. Therefore, the volatility of cash flow can affect financing decisions. Based on the previous research and our discussion, firms with higher cash flow volatility have smaller debt considered long-term to all debts. In future research, the association between accounts payable and cash flow volatility. Professor Santosuosso illustrated that account payable positively affects cash flow volatility [8-10].

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