Re-evaluating Capital Structure Theories: Evidence from Vietnamese Listed Companies

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1. Introduction

Vietnam boasts one of the world's fastest-growing economies, thanks in part to key financial market events, including expanded stock trading hours, new stock indices, and an electronic bidding system launched in 2012. These initiatives have bolstered liquidity and depth in the stock market, making funding more accessible and affordable for firms and improving corporate governance for listed companies, and potentially influencing Vietnamese firms' capital structure decisions. The government's initiatives have created an environment ripe for the reassessment of capital structure theories.

Numerous empirical studies have been developed to examine capital structure theories, with the majority being conducted in the context of developed markets (Leary & Robert, 2005; Lemmon & Zender, 2010; Welch, 2014). A few studies have provided insights into the financing behavior of Vietnamese companies, for example, Nguyen et al. (2019) and Vu et al. (2020). However, none of these articles have specifically investigated whether the rapid expansion of financial markets in Vietnam has led to changes in financing behavior of its publicly traded firms, nor have they explored potential differences in adjustment speed between overleveraged and underleveraged firms.

Our research makes three contributions. Firstly, we analyze the effect of measures introduced since 2012 on the financing behavior of Vietnamese companies. Our results reveal that Vietnamese-listed firms have increased their adjustment pace towards target leverage ratios since 2012. Secondly, we modify partial adjustment models to study the asymmetric impact of financial market development on underleveraged and overleveraged firms. We find that overleveraged firms adjusted their leverage at a faster pace after 2012, while underleveraged firms did not. Lastly, we employ an error correction model to examine short-term adjustment dynamics towards the long-term target leverage ratio and the long-term relationship between actual and target leverage ratios.

2. Empirical Results

In the pecking-order theory, firms use debt financing as a primary option after internal funds are depleted, with equity financing as a last resort. Following Shyam-Sunder and Myers (1999) and Frank and Goyal (2003), we regress the change in debt on the financial deficit to test the pecking order theory. Our results show that only 36.4% of Vietnamese companies' financial deficit is funded by debt, which is inconsistent with the pecking order theory.

The standard partial adjustment model regresses firms' change in debt ratio on their deviation from the target ratio (DTL). To capture potential asymmetric adjustment speeds between overleveraged and underleveraged firms, we modify the standard partial adjustment model. We

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use three estimators: fixed effect, difference GMM, and system GMM. Additionally, we test the impact of Vietnamese government initiatives in 2012 by adding interaction terms between the post-2012 dummy and the DTL variables. Our findings suggest that Vietnamese firms adjust their leverage toward their target, and after 2012, firms with above-target leverage ratios accelerate their adjustment process, while firms with below-target leverage levels do not show significant changes in their adjustment speed. We apply the error correction model to capture changes in the target level as well as their effects on the dynamic leverage adjustment process following Guo et al (2016). Our results show that Vietnamese firms undertake short-term adjustments toward their target debt ratios in response to any changes in such targets, as well as toward the long-term target leverage ratio in the last accounting period.

3. Conclusion

We examine the impact of capital market development on the capital structure decisions of Vietnamese-listed companies, given the significant transformation of the Vietnamese capital market since 2012. Using various trade-off and pecking order models, we evaluate their performance and find that the trade-off theory provides a better explanation for the capital structure decisions of Vietnamese firms, especially after 2012. Our analysis shows that Vietnamese firms increased the speed of their leverage adjustments after 2012, primarily due to overleveraged firms rather than underleveraged ones. Furthermore, the ECM results suggest that after 2012, Vietnamese firms accelerated both short-term and long-term adjustments toward their target leverage ratio.

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