

The Deterioration of Firm Balance Sheet and Investment : Evidence from Thai Firms

一橋大学大学院 スワディー・ルンソンブーン

There is a large body of literatures showing that M&M theorem does not hold in the real world where the information problem in the capital market exists. When there is an information asymmetry between lender and borrower, the external finance premium occurs and leads to the higher cost of external funds compared to internal funds. According to the balance sheet channel theory, the changes in firm's net worth due to any external shocks increase external finance premium. Consequently, firm's investment expenditure declines.

Although the balance channel theory have been widely interested among researchers in both theoretical and empirical works, there are only a few papers applying the balance sheet channel to explain the transmission mechanism of impact of financial crisis on the real economy particularly in the East Asian countries.

This paper aims to shed light on whether and to what extent the firm balance sheet problem matter for investment expenditures. Moreover, the non-linear effects of firm financial condition on investment behavior are to be investigated. As discussed by, Bernanke, Gertler, and Gilchrist (1996), due to the flight to quality of credit, the effect of firm investment and balance sheet condition is not linear. Firms with high agency costs are expected to have higher degree of liquidity constraint and hence tend to reduce more investment than firms with low agency cost.

Using data of listed firms in Thailand over the period of 1991-2001, we estimate the effect of firm balance sheet condition on investment. In particular, during the period of 1997 financial crisis where firm balance sheets are deteriorated, the changes in investment are to be examined. In other words, we will investigate and compare between the degree of liquidity-constraint among firms in the period before the crisis and the period after the crisis. As mentioned before, the sensitivity of investment on balance sheet is expected to be greater for firms with higher agency costs. We also divide firms into categories based on the degree of liquidity-constraint firm faces that is firm size, the degree of bank-dependence and the ability to access to other source of funds (here, whether firm issue bonds or not). The General Method of Moments (GMM) estimators are applied in our model in order to avoid the possibility

of endogeneity of regressors with respect to a disturbance term. Liquidity assets ratio and debt-asset ratio are used as proxies for firm balance sheet condition.

Consistent with the theory, the empirical results show that firm balance sheet condition does matter for firm investment behavior. In particular, small firms tend to face with more liquidity constraint and then reduce more investment than larger firms. Moreover, the estimated coefficient of bond-issuance firms are statistical significantly larger than the coefficient of non-bond issuance firms. Our findings suggest that investment of small firms and firms with no-bond issuance are more sensitive to their balance sheet condition. Bank-dependent firms, as expected, are found to be less liquidity-constraint than independent firms since banks play a role in alleviating information problem especially in the period of financial crisis when the information asymmetry is likely to become more severe.

However, we find that estimated coefficients for the period before the crisis are larger than the coefficients for the period after the crisis. This implies that firms face less binding liquidity-constraint after the crisis. The possible explanation is that the changes in firm's expectation of future economic condition in the aftermath of crisis may lead to a reduction in demand for investment of firms. Accordingly, there is no need of external funds for investment and thus firm financial condition is not important determinant on firm's investment decision any longer.