Chapter 5

Summary and Conclusion

Beattie, Goodacre, and Thomson (2006) suggest that simply describing the associations between capital structure outcomes and firm specific characteristics such as firm size or profitability for “average firm” is not enough. In-depth observations based on careful case study of individual firm's financing decisions that change over time would be more valuable in exploring the related behavioral effects of the capital structure. This is exactly what this study's attention is given to.

This study used traditional regression analysis to estimate the influence of unobservable attributes through observable proxy variables on the corporate debt ratios of the three biggest telecom companies in Taiwan. Our major empirical results in traditional regression are summarized as follows. (1)The debt ratio of Chunghwa Telecom is positively related to its firm size and collateral value of tangible asset. Profitability has a negative effect on its debt ratio. (2)For Taiwan Mobile and FarEastone Telecom, the debt ratios are positively related to their collateral value of tangible asset. Firm size and profitability have a negative effect on their debt ratios. (3) There is no evidence to support an effect on debt ratios arising from growth, business risk, cash, and earnings volatility for all three companies. (4)Overall, the major determinants of capital structure for telecom industry in Taiwan are firm size, profitability and collateral value of tangible assets. More profitable firms have lower debt ratio, confirming the pecking order theory. Consistent with most literatures, collateral value of tangible assets has a positive effect on debt ratio. The effect of firm size is ambiguous.

Through the concept of Granger causality, we further enhance the results of the traditional regression analysis for Chunghwa Telecom in that debt ratio Granger causes the firm size in the same direction and Granger causes the profitability in the opposite direction. The bidirectional causality weakly supports the positive association between collateral values of tangible assets and debt ratio. However, Granger causality does not provide any clue on the causal connection between debt ratio and the other four factors. The results of Granger causality for Taiwan Mobile do reveal a significant message that the only factor under considerations leading to the decrease of debt ratio is cash. It reflects that cash is an important factor in the business operation of Taiwan Mobile.

Our results are not conclusive. It remains an open question whether our models does actually capture the true data generating process and relevant aspects of the attributes with proxy variables. As to the first question, due to limited quarterly data available from 2000 to the 1^{st} quarter of 2008, the samples may be not large enough to capture real time series dynamics of debt ratio and other variables. For instance, compared to the results of the simple regression, we are not able to interpret the results of the multiple regression for Taiwan Mobile. As to the second question, for instance, which of return of equity, return of assets, EBIT over net sales, EBITDA over net sales or other variables, could be a better proxy variable as an indicator of a firm's profitability that should be used in analysis? Each of the proxy variables may merely reflect part of the true nature of profitability so that the results speak softly.

Nevertheless, this study sheds a light on the capital structure of the telecom industry in Taiwan that has not previously been analyzed empirically. The limited data available still provide opportunity to document the relationship between debt ratio and other factors under consideration that reveals some useful information of the determinants of the telecom industry's capital structure in Taiwan.