

Decision making for integrating a securities firm with a financial holding company: comparison between the NPV method and the binomial option approach

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Abstract

This study attempts to provide a foundation for decision making regarding integrating (merging) a securities firm with a financial holding company. Besides calculating the static value using the conventionally adopted net present value method, the potential value through strategic flexibility is also measured using a binomial option approach. This study

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obtains the following findings. First, based on evaluation with the net present value method, the securities firm should immediately be integrated with the financial holding company. However, the firm value may be underestimated by failing to consider strategic flexibility. Second, the integration should be delayed by using a binomial option approach. Third, the value of the securities firm increases with the range of options (available for consideration). Fourth, given variation in risk-free interest rate, firm value, strike price, time to maturity, and value volatility, the option value may influence the timing of firm decision making.

Keywords : Net present value, binomial option, decision making, financial holding company.

1. Introduction

The Taiwanese Financial Holding Company Act was passed by the Legislative Yuan in 2001. Through the establishment of Financial Holding Companies (hereafter abbreviated as FHC), this act hoped to address to the problems associated with an excessive number of financial institutions, and the impact of competition from foreign financial institutions associated with Taiwan's entry to the World Trade Organization (WTO). Fourteen FHCs were established in Taiwan by May 2004, a number that is still extremely high given the limited size of the domestic market. Moreover, the assets of Taiwanese FHCs are too small to compete with international financial groups unless second round of mergers and acquisitions (M&A) is conducted hereafter.

Boyd et al. [1] examined cases of M&A involving non-banking companies by American banking holding companies. The analytical results demonstrated that mergers involving securities or real estate investment companies are associated with higher risk than other M&A strategies. Sui and Oh [2] found through empirical analysis that small bankers must pursue specialized niches to survive owing to their limited resources.

Within the structure of FHC, although the affiliated securities firms may benefit from enjoy an increased market share, the benefits of affiliation within FHCs for securities brokerages remain uncertain. For those securities brokerages that remain independent, their strength in terms of financial market channels and market share is reduced. Even though businesses are diversified through the lifting of legal restraints, profitability is reduced and the operating environment becomes touch. Numerous