

Corporation Value Analysis in China Second Board Market

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Abstract: The Nasdaq-style second board in China is the main financing approach for small and medium-sized and hi-tech companies, because these companies can't meet the conditions of main board. So how to estimate corporation value is important to IPO and invent. The concept of corporation value was firstly brought up by America manage scholar with the appearance of property right market in the early 60th of twenty century. Corporations must make themselves accepted, seek the way of adding value continually, and undertake all kinds of production activity with the aim of max value in competition market. So research on corporation value is significant for the corporation in China second board and has important meaning. In this paper, several valuation is compared and given the adaptation for second board.

Keywords: second board; cash flow; valuation

1 Introduction

Second board market, also known as the growth enterprises market, refers to a Nasdaq-style stock exchange market engaged in providing financing channels for the medium, small and start-up enterprises, especially high-tech ones. China's Nasdaq-style Growth Enterprise Market was launched on the Shenzhen Stock Exchange on Oct. 23, with 28 companies approved for listing by the GEM board's committee, according to an Oct. 23 Shenzhen Stock Exchange announcement. This is a key step towards setting up a multi-tier capital market and giving a boost to small and medium-sized firms. The launching of GEB had provided new financing channels for innovation-oriented growth enterprises. It is also significant to the development of China's capital market and the country's drive to shift its economy away from traditional manufacturing towards innovative, higher-value industries. A CSRC spokesman called the move "an important measure to improve the structure of China's capital market and expand the market's depth and width." The Growth Enterprise Board provides new opportunities, but it also means high risks.

Investment objective of institution investors are to achieve higher return for a long time, which require corporation persist in increasing value of itself, accordingly increasing the fortune of institution investors. If manager once is considered as unable to provide shareholders with content home, investors can use their own right to substitute the manager of enterprise, or sell stock. This stress makes the managers lay emphases from profit of short time to corporation value. Therefore, value manage has been the core of prosecution in American company after 90th of twenty century. Now, there are a lot of researches about corporation value field, even it is in the ascendant. But, from these literatures, we can see that some think corporation as working production, some consider corporation as dynamic merchandise, others equate the corporation value with capital value, yet, there are few people discussing the true meaning of corporation value. Moreover, with the development of capital market, the securities business in our country has achieve large success. But, there are some problems that we must pay attention. Especially after we join WTO, it is important to understand corporation value and the impact element of listing corporation value, and it can help us un-

derstand and know securities market. But, what is corporation? Which elements do affect corporation value? This is the question wanting to be resolved.

China growth enterprise board (GEB) was launched on the Shenzhen Stock Exchange on Oct. 23 in 2009, which provides new opportunities, but it also means high risks. With the rapid development of the property right market of specializing in buying and selling the corporation, people increasingly and clearly realize corporation itself is a kind of commodity, though it produce commodity in the condition of market economy. In this paper, introduced several valuation model for GEB corporations and compared it can provide theory and fact help with corporation, which will make for making decision including finance and operation, and make corporations realize society value and financial target.

2 The Discount Cash Flow Method

Corporation valuation model is the key question of researching the corporation value. In order to make the research easy, we suppose the market perfect efficiency. It is denoted that the rational inventors are in the highest flight; there is no tax and trade fee, and any inventor can't affect or control the price in market by his own trade; all rational inventors has the same source of information, and has the same evaluation to invent and profit; the strategy of invent from firm and inventors has been assured that can't be affected by the dividend policy and meet Fisher separate theorem; the inventors is sensitive for non-expected information.

$$v_t = \sum_{t=1}^{\infty} \frac{D_t}{(1+r)^t} \quad (1)$$

Where, r is the discounted rate, and D_t is the book value per stock at time t .

When we decide to use discount cash flow(DCF) method to measure the corporation value, we find that it is not appropriate to use dividend as the factor because the proportion and number of the dividend are not steady in China. Then we want to choose cash flow as the factor,

but the data of cash flow isn't integrated. The reason is that it is thrown daylight on the cash flow sheet until 1998 year in China. If using the accounting surplus index only, we can be affected by accounting method, accounting evaluation and the measure of earning and cost. In view of the above-mentioned reason, when valuation, we can chooses book value per stock as measure factor in order to evaluate corporation value. In the condition of perfect efficient market suppose, the evaluation of value per stock at time t can be denoted:

$$v_t = \sum_{t=1}^{\infty} \frac{BVPS_t}{(1+r)^t} \quad (2)$$

Where, $BVPS_t$ is the book value per stock at time t .

3 Ohlson's Valuation Model

Modigliani and Miller brought forward the famous dividend discounted model in 1961. They considered when inventors buy stocks they expected two kinds of cash flow, etc cash dividend and trade earning. Certainly, when the model imposes that corporation is managed and shareholders holds stock continuously, dynamic dividend becomes the basis of calculating value. So, it can receive the dividend discounted model.

$$V_t = \sum_{\tau=1}^{\infty} \frac{d_{t+\tau}}{(1+r)^\tau} \quad (3)$$

Where, V_t denotes price or value of corporation at t term, d_t denotes dividend at t term, and r denotes capital cost.

When inventors want to hold stock for long time, and dividend increases with fix growth rate as g , and r is larger than g , the model is:

$$V_0 = \frac{d_0(1+g)}{r-g} = \frac{d_1}{r-g} \quad (4)$$

Ohlson's residual incoming valuation model was based on three hypothesis:

①The current value of corporation is equal to the sum of the current equity book value and future expected residual incoming.

②The calculation of corporation value satisfies Clean Surplus Relation, i.e. the current book value is

equal to prophase book value adding current surplus and deducting the current dividend.

$$bv_t = bv_{t-1} + x_t - d_t \quad (5)$$

Where, bv_t denotes the book value of net assets at time t , x_t denotes accounting incoming at time t , d_t denotes the cash dividend at time t .

③Residual incoming is defined as:

$$x_t^a = x_t - rbv_{t-1} \quad (6)$$

Where, x_t^a denotes residual incoming at time t , r is the rate of equity capital cost. Residual incoming is that net surplus deducts the required pay of shareholders.

On this hypothesis, Ohlson's residual incoming valuation model can be denoted:

$$V_t = bv_t + \sum_{\tau=1}^{\infty} (1+r)^{-\tau} E[x_{t+\tau}^a] \quad (7)$$

Where, $E[\cdot]$ denotes the expected value of information at time t .

Ohlson residual incoming theory broke the institution that financial data is difficult to evaluate corporation value. It used the method of basic analysis, and made the accounting data used to valuation. It is more progress. But whether residual incoming model can substitute financial data to explain stock price, this paper carries out extend analysis about Ohlson's residual income model, and uses ROE as the basis of the calculation.

4 Economic Value Added (EVA)

According to the explanation of Stern Stewart company that is the organizer of EVA, it equals return on capital(ROC) deducting cost of capital(COC). In 1993, Fortune express EVA model entirely. EVA was defined that adjusted net operating profit deducted opportunity cost.

$$EVA_t = OP_t - K_w \times A_{t-1} \quad (8)$$

Where, K_w denotes weighed average capital cost, A_{t-1} denotes asset value at t time, OP_t denotes adjusted net profit. K_w is drawn by model:

$$K_w = \frac{D_m}{D_m + E_m} (1 - T_c) K_D + \frac{E_m}{D_m + E_m} K_E \quad (9)$$

Where, D_m denotes market value of total debt of

company, E_m denotes market value of equity, and K_D is the capital cost of debt before tax, T_c denotes the rate of tax, and K_E is the capital cost of equity.

According to the prescript of GAAP, Stern Stewart company supply that need adjust more than one hundred sixty stems. In fact, it is difficult. Ordinarily, it use net operating profit before interest and after tax(NOPAT) to substitute ROC, and use WACC multiplying total capital(TC) substitute COC. This formula is based on certain accounting system. Because of different accounting system in all countries, the method must be adjusted by special country or area according to local accounting system and measure characteristic. In this paper, we adopt it as measure method.

In this condition, Stern Stewart created MVA index, and it denotes the margin between corporation market value and total invent capital. MVA reflects expect to future payoff ability of company. When MVA is positive, it means that company creates wealth for inventors, and capital gains increment. When MVA is negative, it means that value created by company is lower than capital value invented by inventors. In this situation, it means that not only there isn't wealth but also it creates loss.

The appearance of MVA and EVA attract a lot of scholar's attentions. Their research centralized in two sides mainly. On one hand, they pay attention to explanation ability of EVA to stock price and comparison with traditional accounting index. On the other hand, they pay attention to relationship between MVA and EVA. In this paper, we combine ago research, and expect to find the relation among EVA and accounting index and MVA. Then it can draw relationship to market value and explanation from change.

5 Conclusions

After several centuries, economists have drawn conclusion that it need gain wealth exceeding opportunity of debt and equity if one company want to create wealth. As a concept, EVA is simple and easy to learn and apply. It is equal to profit deducting capital cost of invent, i.e. opportunity cost. It denotes that inventors abandon return

on debt and stock because of holding current company security. The compare is done with the usual enterprise valuation methods by combining with the fact of our enterprise. The result indicates: option valuation is complex and has the rigorous restrict condition, so it has not the practicability in China; The relative comparison valuation method is easy to use, however, because of the monotonous factor the model considers and the high degree of subjectivity in discrepancy adjustment, it makes standard measurement necessary; The adjusted book value method is straight and convenient, but it is based on the history data and does not consider the influence of inflation and economic depreciation, so it can not reflect the true market value. It is not used by the enterprise in practice.

This paper pays a little research emphases on EVA and MVA, and review correlation relation between corporation inherent value and market value. Then it compares the relation between financial index and market value, finally reviews the conjunct influence of EVA and the financial index. The result indicates that there are relation between EVA and MVA, and EVA has more information content than the financial index, but the latter has the effect on the market value and is not lacked. EVA doesn't explain market value entirely, and it needs other financial index to explain market value. The discount method of cash flow is based on the cash flow, and has the reality meaning. It is easy to use the accounting data, so it has the practicability. Residual income model uses the accounting data to calculate, and it has not the strict request except to satisfy the CRS, then it has the better using value. Based on shareholder's value, EVA system has caused extensive concern of the domestic and inter-

national theory and practice circle. Because of its excellence in performance measure and management ideology, EVA has been adopted in many world famous corporations. But EVA is a new concept in China. It is an initial stage both theory research and practice explore. It is necessary to introduce this new advanced ideology and management method to our domestic enterprises to establish an applicable EVA management system. The emphases of this thesis lie in the DCF and Feltham-Ohlson model and EVA.

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