The Application of Economic Value Added:
Being Functional Objective in Financial Management

Gang Chen[1], Xinyu Ma[2]

1. Management School, Shandong University of Technology, Zibo, P.R. China

2. College of Computer Science and Technology, Shandong University of Technology, Zibo, P.R. China

(E-mail: 1. chengang@sdut.edu.cn, 2. maxinyu@sdut.edu.cn)

Abstract: The concept of economic value added (EVA) has been gaining increased recognition in China over the last decade as its initial intention is to assess the performance of the management and to help design the incentive-compensation system in a company. However, the EVA application in financial management has not been fully developed. Since currently the implementation of the "firm value maximization" as the general objective is not convincingly feasible in financial management in China, this article analyzes some unique aspects of its attributes such as measurability, easy usability as a convenient measure of operation performance. EVA is then entitled to be the objective of business financial management functioning units in this paper and the feasibility of this objective is proved from several aspects such as financing, investing and dividend policy-making which aims at the wider range of application of EVA in China.

Keywords: Economic Value Added; Financial Objective; Financial Management

1 Introduction

Being the general objective of corporate finance, "Firm Value Maximization" is gradually recognized in financial management in China. However, research showed that "there were lots of people who advocated this objective, but quite few like to apply" [1]. The main reason is that it is possible to be an ideal general objective, but not easy to be implemented due to the difficulty in measuring the 'firm value'.

During the conduction of the financial management functions, many specific financial sub-objectives and assessment measures have long been existed and applied, such as EPS, P/E ratio for market value, NPV for capital budgeting and M&A. But theses indices are not the same logically. Accordingly, top/senior managers, under this situation, would try to increase the stock price hoping that their income could rise dramatically in bullish market and the NPV should be the biggest in capital budgeting. Thus, the various financial measures will make "multi-polar" financial objectives, pushing the managers into the dilemma very easily, and encouraging "the smart managers make mistakes" [2]. Furthermore, the short-term measures, such as profit and stock price, which are myopia-oriented, have gone far from the general objective of the firm value maximization which is on a long-term basis.

Theoretically, there is no unified or formalized functional objective of functioning units of a firm for the time being, which makes it easier to disconnect the inherent close relevancy between the assessment indices, financial objective and firm value. That will result in the unmatched strategic plan and financial decision with the general objective of the company. This article suggests that it is easier to avoid the "managers regularly struggle with the disordered, irrelevant and sometimes conflicted profit index and decision goal"[3] when consider EVA as the general objective of all the functional activities in financial management and that will be able to cultivate the accordance and coherence of the company management system. It can also promote the assessment system and incentive-compensation connotation underlying EVA concept to be widely used.

2 The Role of EVA

2.1 The Meaning and Significance of EVA

Being a different and new performance assessment measure, Economic Value Added, also well-known as EVA, was put forward by Stern Stewart & Company in America at the end of the 1980s. EVA is the extension and progression of the Residual Income (RI) concept. It overcomes most of the shortcomings in predictability and relevancy of the traditional performance assessment measures with real performance bringing the milestone in the firm performance assessment history. EVA is also an

978-1-935068-05-1 © 2010 SciRes.

"incentive mechanism for personal behavior". It makes a connection between performance and the managers' compensation, encouraging the managers to increase the wealth of their own while accumulating the value of the company. Many famous world-class corporations and even some agencies of government adopted EVA to measure business operation and management performance. The concept of EVA and EVA-based management systems have been recognized and accepted by more and more companies in China.

In terms of numerical value, EVA is equal to the value that Earning Before Interests and After Taxed (EBIAT) deducts the operation capital multiplied with weighted average capital cost. Alternatively, it can be arrived at by multiplying operation capital with the extra return rate, which is the result of return rate of operation capital minus weighted average cost of capital. Where, EBIAT, is also called Net Operational Profit After Taxes (NOPAT) is the "real income" which is arrived at by adjusting the accounting book profit. Operation capital is the economic book value based on adjustment of book value of total asset of the company which is aiming to obtain the real capital value employed in the profitable activities.

The key objective of EVA is to induct the cost of equity capital into the traditional performance assessment measures system, which is essential for the full recovery of those expenses incurred in value creating activities. Moreover, it modifies the potential bias and distortion generated by accounting principles via the adjustment of accounting book profit. The real meaning of EVA is the economic value arrived at by deducting all of the cost of capital, including all of the cost of debt capital and equity capital, from the business economic profit. Therefore, the increase of EVA, in substance, is the appreciation of firm value.

2.2 The role of EVA in Financial Management

1. Directing. EVA considers complete cost of capital, including debt capital and equity capital. It insists that even opportunity cost should be included in whole cost of capital because it is the bottom line of return of those wise investors who invest their capital into the firm. EVA can meet that requirement and thus it is actually an evolution in performance evaluation. It is also well known that only after all of the opportunity cost of the investment is fully recovered can the company be able to remain the assets value and only when the positive EVA is created can the value-added of the assets be realized. Thus, increasing EVA is in accordance with the long-term survival and sustainable development and appreciation of firm value of a company.

2. Restricting. EVA is helpful for improving the corporate governance by imposing a powerful constraint on the managers. Generally speaking, the corporate governance refers to the organizational structure consists of the owner, board of directors and senior managers. Of this organizational structure, the balance of the relationship is built up among the three parties. The advantage of EVA on improving the corporate governance is shown with restraining the ideology and activity of the company managers, according to the interests of the managers and stockholders, to run the business in line with the attitude of the stockholders. The EVA mechanism is able to create the "same willingness" of the stockholders and managers of the company, for making the maximum "economic value" of the company. Meantime, EVA can coordinate the relationship properly, eliminating spontaneously the bad influence of internal control which enhance the reduction of agency costs and increase the firm value to the maximum extent.

3. Promoting. Under EVA system, managers of a company must consider the complete capital costs, including the higher cost of stock capital. In this way, the manager should not neglect the risks of raising capital from debts and should pay more attention on the return of equity capital which makes the dedication of choosing financing ways carefully, optimizing the capital structure and focusing on the sustainable increase of firm value. Therefore, EVA not only plays a promoting and inspiring role on the managers but also protects the interests of the investors and stakeholders to the maximum extent.

3 Attribute Analysis of EVA as Financial Management Objective

3.1 Consistency with Firm General Objective

The initial concept of the firm value maximization is "to put the long term stable development of the company at first priority and to satisfy various interest of deferent parties during the firm value growth"[4]. The stakeholder protection conception is also shown clearly in the EVA calculation formula. The creditors get interests and principal repayment in due course. The returns on stock investment of the stockholders accrue at least at the average level in capital market. As the value of EVA and also the whole firm increases, the earnings of the stockholders will increase. Under the EVA system, the income of the employees and managers will be improved with the increase of the firm value. Their enthusiasm will be encouraged to last long with EVA increase continually. The customers and other stakeholders of the company will get the accumulated value of EVA, with the firm value increases continuously.

3.2 Correct Guidance and Direction

Since the high consistency of the EVA objective with the general company objective, the EVA assessment and incentive system is a clear and correct guidance for the behaviour of managers. In addition, the most important is that EVA cares both the financial risks and long term interests, stressing on the company sustainable development. EVA does not encourage the exaggerated short term results by sacrificing the long term excellence. For instance, as for the treatment of R&D expenditures, EVA adjustment does not encourage the decrease of the expenses on R&D, but motivates the management to make the investment decisions that can bring long term benefit. EVA makes up the elaboration and long term vision for the management, facilitating the managers to enrich themselves by increasing EVA and long term value-adding to the company. Consequently, the stockholders' requirements are well satisfied, and the company long-term return and competitive capability can be promoted effectively.

3.3 Easy Measurability

Financial management is a kind of value management whose primary requirement is to have quantitative objective. The non-quantitative objective lacks of feasibility in this scenario. EVA is a value amount indicated by absolute amount, without any need of other extra calculation. The EVA created by any company or some departments can be easily calculated at any time, if necessary. Thus it meets the requirement of easy measurability. From this stand, EVA is suitable to be an objective of financial management.

3.4 Easy Traceability

The traceability of the financial objective means the objective can be defined as and divided into the functional objective of the various department sectors, for the sake of implementation of the responsibility, control, assessment and promotion. EVA can be disassembled from the whole company level into the basic units of the company with easy understandable and acceptable absolute amount. This characteristic entitles EVA inherent advantages to be the specific objective for the financial management functions.

3.5 Controllability

Those measures that cannot be controlled by the managers should not be applied as benchmarking assessment of the performance. The best example is the stock price. The changes of the stock market prices may be resulted from the firm value increase, the changes of state macroeconomic policies, some unexpected partial interests, and even gossip or man-made fake information. Thus, the market prices of stock should not be used as the performance assessment measure for managers. Whilst among all the factors used to arrive at EVA, the economic profit which is made from adjusted book profit, operational capital, operation efficiency and financial cost of capital are all under the control by the managers. Furthermore, the incentive-compensation system based on EVA is the guarantee for realizing EVA objectives. Under this incentive system, EVA "unifies the interests of the managers and stockholders, and push managers to think and behave like the stockholders do"[5].

4 Analysis of EVA When Used for Specific Financial Management Activity

4.1 EVA as Financing Decision Objective

Financing is the first step for running business of any company. Companies raise capital from the capital market via a number kind of financial instruments and pay certain amount of interests for the capital they have

978-1-935068-05-1 © 2010 SciRes.

got and assume corresponding risk. Accordingly, the optimal capital structure should be achieved to get the minimum cost of capital, maximum EVA and maximum firm value.

The calculation of EVA shows clearly that, the lower the weighted average capital cost is, the much larger the EVA will be, with the constant capital employed and the constant return rate of capital used. At the same time of arriving at the optimized capital structure of the company, the overall capital cost should be at the minimum point and the EVA should be at the peak largest. Figure 1 shows the relationship between those three variables.

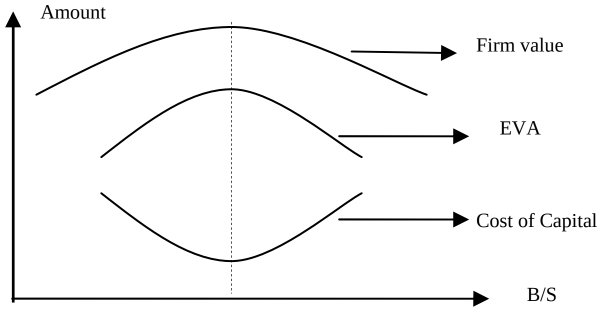

Figure 1. Relationship between EVA, Cost of Capital and Firm Value

4.2 EVA as Objective of Investment Decision

As for the capital budgeting of a company, the present value of EVA at the same discounting period is the same as the NPV created by the capital budget. "Annually discounted present value is equal to NPV analysis"[6] . That is to say, positioning EVA as the investment decision objective is equal to pursue the maximum present value of EVA or the firm value maximization in capital assets investment decision-making. Comparing to the traditional methods of project investment appraisal, EVA method maintains the consistency of different financial activities.

4.3 EVA as Dividend Policy Objective

There are lots of successful cases that whether pay dividend or not, or pay more or less. However, we suppose that the extreme dividend policies are only suitable for those minor extreme investors. The majority of the investors prefer the financial assets with appropriate risk and return. Generally speaking, changing dividend policy has the contradictory dual effects on stock price. The authority of management should balance both the demand of stockholders for the current earnings and the requirement of the company for the sustainable development when making dividend policy decision. Only in that way can the EVA maximization and the general company objective be realized.

To sum up, as the functional objective of the financial management, EVA is able to be easily understood and carried out. It is of significance in financial management which is shown as Figure 2.

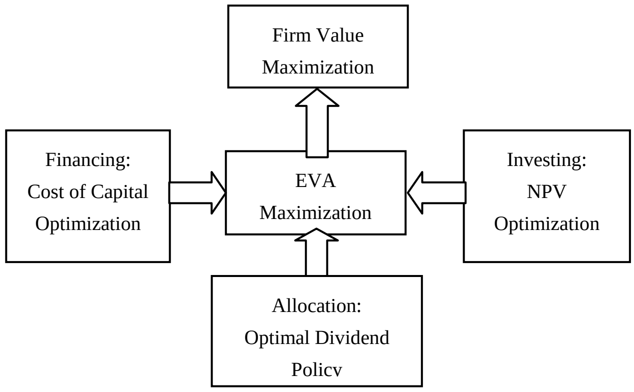

Figure 2. Financial Objective: EVA Maximization

5 Conclusion

EVA provides a unified, accordant, easily accepted and feasible financial objective which facilitates all financial decisions being properly assessed under the same only criterion. Companies can build up an effective functional system in financial management if they determine EVA as the general objective for all of the financial functions. More value should be created from the application of EVA for the stakeholders of the firm.

References

[1] WANG, Qingcheng. Discussion on Financial Management Objective[J], *Accounting Research*, 1999, (10) (Ch).

[2] [3][6]Robert C· Higgins, Analysis for Financial Management[M]. Beijing: Machinery Industry Press, 1998

[3] Wang, Huacheng. International Comparison of Financial Management Objectives and Practical Selection of Companies in China[J], *Accounting Journal*, 2000, (8) (Ch).

[4] Al Ehrbar (2001), translated by Ling, Xiaodong, etc. "EVA, how to create wealth for stockholders" [M]. Beijing: Zhongxin Press.