EVA – Advanced method for performance evaluation in banks

VEA - Metoda avansată de evaluare a performantei în bănci

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Abstract

EVA (Economic Valued Added) is a modern financial measurement tool that determines if a business is earning more than its true cost of capital. Including a cost for the use of equity capital sets EVA apart from more popular measures of bank performance, such as return on assets (ROA), return on equity (ROE), net banking income and the efficiency ratio, which do not consider the cost of equity capital employed. As a result, these measures may suggest a bank is performing well, when in fact it may be diminishing its value to its shareholders. EVA is a tool that focuses on maximizing shareholder wealth. EVA is an appropriate tool for motivation system and in this way it motivates managers to think like owners; and provides a common language within the corporate culture. The EVA application in banks is relatively new (it started to be implemented in U.S. in 1994) and is not as well known as other measures of bank performance. As in the Romanian Banking system this measurement method is not familiar or used, the purpose of this study is to introduce EVA and its advantages compared to other performance indicators and based on this study to try to implement it in one of the Romanian banks.

Keywords: *performance measures, EVA, shareholder value, banks, motivation system*

Rezumat

VEA (Valoarea Economica Adaugata) este un instrument modern de masurare a rentabilitatii care arata daca o afacere genereaza castiguri mai mari decat costul real al capitalului investit. Incluzand in calculul sau costul pentru utilizarea capitalului, VEA se departajeaja de masurile populare de masurare a performantei in banci, ca de exemplu rentabilitatea activelor (ROA), rentabilitatea economica (ROA), venitul net bancar si indicatorii de eficienta, care nu iau in calcul costul capitalului utilizat. In consecinta, acesti

indicatori clasici pot sugera ca banca performeaza bine in timp ce de fapt ea isi diminueaza valoarea pentru investitorii sai. VEA este un instrument care se axeaza pe maximizarea valorii actionarilor. VEA este un instrument adecvat pentru sistemul de motivare in companie, astfel ea motiveaza managerii sa gandeasca ca si actionarii; genereaza un limbaj comun in cultura organizationala. Aplicarea VEA in banci este relativ noua (a inceput sa fie implementata in U.S. in 1994) si nu este la fel de cunoscuta precum celelalte metode de masurare a performantei. Cum in sistemul bancar romanesc acest instrument de masura nu este familiar sau folosit, scopul acestui studiu este prentarea conceptului de VEA si a avantajelor sale comparativ cu alti indicatori de performanta, iar in baza acestui studiu sa se incerce implementarea sa in una din bancile romanesti.

Cuvinte-cheie: *masurarea performantei, VEA, valoarea actionarilor, banci, sistem de motivare*

JEL Classification: : G21, G31, G32, M21, M41, O31

Introduction

Economic Value Added, or EVA, is a financial measurement tool that bankers can use to measure the financial performance of their bank. EVA determines if a business is earning more than its true cost of capital. It is mainly used in the U.S. banking industry since 1994 and is not as well known as other measures of bank performance. EVA is an estimate of the true economic profit (not accounting profit), EVA is highly accurate because it includes the cost of debt financing and equity financing.

As in the Romanian Banking system this measurement method is not familiar or used, the purpose of this study is to introduce EVA and its advantages compared to other performance indicators and latter on to try to implement it in one of the banks.

Economic Value Added – definition

EVA was invented by Stern Stewart & Co. which launched EVA in 1989. EVA measures residual income: that is, it measures the difference between a firm's cost of capital and return on capital. EVA is a tool that focuses on maximizing shareholder wealth.

As developed by Stern Stewart & Co., EVA is calculated as a company's "net operating profit after taxes" (NOPAT) minus a dollar cost for the equity capital employed by the company. The dollar cost of equity capital employed by a company is equal to the company's equity capital (reported on its balance sheet) multiplied by a percentage return that the company's shareholders require on their investment.

EVA can be estimated focusing both on *Management of Capital* as well as the *Management of Profits* (as summarized by Verma).

EVA as a measure of value creation through Management of Profits

EVA = [Return on invested Capital (ROIC) - Cost of Capital (WACC)] x Total Capital invested

↓ NOPAT/Invested Capital

↓ Opportunity Cost of financing

EVA as a measure of value creation through Management of Capital

EVA = NOPAT - (WACC x Total Capital Invested)

The use of this formula will produce either a positive or negative EVA number. A positive EVA reflects that the company is increasing its value to its shareholders, whereas a negative EVA reflects that it is diminishing its value to its shareholders. EVA is based on the principle that since a company's management employs equity capital to earn a profit; it must pay for the use of this equity capital. As management consultant Peter Drucker said, "Until a business returns a profit that is greater than its cost of capital, it operates at a loss... The enterprise still returns less to the economy than it devours in resources…Until then it does not create wealth; it destroys it".

In order to create values, ROIC for a bank must be greater than weighted average cost of capital (WACC). Therefore, the EVA may be increased in several ways, including:

1) increasing NOPAT;
2) lowering the WACC and
3) reducing invested capital

EVA Calculation

Step 1: Calculating NOPAT (Net Operating Profit After Taxes)

The first step in calculating EVA is to make adjustments to a company's net income in order to produce its NOPAT. These adjustments are necessary as the company's net income is calculated under generally accepted accounting principles (GAAP), which often distort the current economic realities of the company.

Stern Stewart & Co. has identified more than 120 potential adjustments that a company can make to its net income, but most companies apply about ten adjustments to produce a sufficiently accurate EVA figure. The decision on which adjustments to be made relay on: 1) the materiality of the adjustments, 2) the effect they will have on management's behavior, 3) how easily they are understood and 4) the degree to which they will impact the company's market value.

The most common adjustments for a bank refer to its provision for loan losses and its provision for taxes. It may make other adjustments, especially if it has nonrecurring items and unrealized gains and losses on trading securities during a given period.

As noted in Velez-Pareja (2000), when EVA is used to assess company performance in a given period, capital invested and NOPAT should not be calculated in the same period. As investors expect to receive returns on the investment made at the beginning (and not on the cumulative amount at the end of the period), shareholders compare returns (i.e. NOPAT) earned over the period with the capital invested at the beginning (and not at the end) of the period. For this reason, capital invested is measured with a lag of one year and EVA is calculated as follows:

$EVA_t = NOPAT_t – (Capital\ Invested_{t-1} * Cost\ of\ Capital)$

With regard to the estimation of EVA for banks, one important difference between financial institution and other firms is the role of debt. For non banking firms debt forms an integral part of financing operations and therefore interest expense/income is excluded from

NOPAT calculations so that returns are unlevered. A bank's debt funding is effectively the raw material which is intermediated ("manufactured") into high yielding assets. Interest expense, on this view is the equivalent of the cost of goods sold.
The above has two consequences

- Interest expense is included in NOPAT and, because of this,
- When calculating the cost of capital we define capital as equity and equity equivalents. (the cost of other funding – eg., debt and deposits – having been expensed in the income statement, thus allowing for the value creation of below market cost).

Step 2: Calculating Cost of Equity Capital

The cost of equity capital employed by a company is equal to its equity capital multiplied by a percentage return that the company's shareholders require on their investment.

Cost of Equity Capital = Equity capital * Percentage Return Required

In calculating a bank's EVA, the equity capital figure used is often based on its "total capital", which is the sum of its Tier 1 and Tier 2 capital.

The percentage return that a bank's shareholders require on their investment is based on the fact that they require both a return for just investing their money and a return that reflects the risk inherent in investing specifically into that specific bank.

Percentage Return Required = Risk-Free Rate + (Beta Coefficient x Market Risk Premium)

The risk-free rate is the interest rate that can be obtained by investing in an investment with no risk (in practice there are usually used the short term government bonds (in Romania the market for these instruments is not matured, but starting with 2009 the National Bank intends to encourage the development of these products and their trading). The beta coefficient is the level of risk inherent in investing in a specific company relative to investing in the overall stock market. The market risk premium is the risk associated with investing in the stock market as a whole.

EVA vs. other traditional performance measures

Including a cost for the use of equity capital sets EVA apart from more popular measures of bank performance, such as return on assets (ROA), return on equity (ROE) and the efficiency ratio, which do not consider the cost of equity capital employed. As a result, these measures may suggest a bank is performing well, when in fact it may be diminishing its value to its shareholders.

Every useful performance metric attempts to measure changes in shareholder value. Economic value added (EVA) is the best metric available. The others each have significant drawbacks:

- Traditional income measures, including operating profit, earnings before taxes, net income and earnings per share, can be easily manipulated, and they do not account for the cost of equity. Financial markets are interested in knowing how the reported profits weigh against the of cost financial resources employed. Reported profits without consideration for cost of capital are irrelevant.

- Market-based measures, including market value added (MVA), excess return and future growth value (FGV), can only be calculated for publicly-traded entities.
- Cash flow measures, including cash flow from operations (CFO) and cash flow return on investment (CFROI), include neither the cost of equity nor the cost of debt.

Other EVA strong points vs. other traditional performance measures.

- EVA is an easier concept of profitability than ROI and furthermore, it can be translated into day-to-day operations. Theoretically EVA is much better than conventional measures in explaining the market value of a company. Financial theory suggests that the market value of a company directly depends on the future EVA-values. *The market value of a company = Book value of equity + present value of future EVA***.** A bank's present value should equal its invested capital plus the present value of future EVA and if the bank's present value is lower, the stock is undervalued and vice versa. Value of a bank's share is equal the market value of assets and the sum of EVAs of all future periods discounted back to the present. When a bank no longer earns a return on its incremental investments greater than its cost of capital, no EVA is added from new investments.
- When the costs of employed capital are shown in the income statement the importance of capital from the viewpoint of profitability could easily be seen. After realizing the true costs of capital managers are often able to decrease excess employed capital considerably.
- Since EVA may be calculated for private entities or for divisions within companies, it can be used as a motivational tool deep within the organization. Traditional managers understand that their companies need to control operating costs and succeed in the commercial markets. Today, companies also must compete in the capital markets by keeping their cost of capital low, especially in the banking industry.

EVA implementation

The main benefits of the EVA's implementation may be summarized in "The Four M's": Management System, Motivation, Mindset, Measurement (Marusak 2007).

Management System

- Simply measuring EVA can give managers a better focus on performance.
- Provides a foundation for a comprehensive financial management system.

Motivation

- Incentive plans to make managers think like owners because they are paid like owners.
- EVA Bonus Plan.

Mindset

- Changes corporate culture.
- EVA system provides a common language for employees across all corporate functions.
- Facilitates decentralized decision making.

Measurement

- Most accurate measure of corporate performance over any given period.
- Translates accounting profits into economic reality.

In order to implement EVA, the management should support this development and the following steps are compulsory for a successful implementation: especially the key persons (top and middle managers) have to understand and commit to EVA thoroughly; without the full support of managers there will not be substantial results; good understanding helps to tailor EVA to the specific need of a company; EVA will be most

beneficial if broken down into small parts; integration of EVA to incentive systems for all the employees is a good way to make all the employees work hard for common goals; EVA, usually, improves profitability through the improved capital turnover ; companies have usually done a lot in cutting costs but there is still much to do in improving the use of capital.

Conclusion

As it has illustrated in this paper, EVA can be an important tool that bankers can use to measure and improve the financial performance of their bank. Since EVA takes the interest of the bank's shareholders into consideration, the use of EVA by bank management may lead to different decisions than if management relied solely on other measures.

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