



Economic Value-Added for a Life Insurance Company

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Much has been written in the financial press over the past several years about economic value-added (EVA) as a tool for improving shareholder value. A company frequently mentioned as an example of the power of EVA as a driver of shareholder value is Coca-Cola, which has used EVA for a number of years as a primary financial measurement tool. A number of consultants offer their advice on EVA, one of the most prominent being Bennett Stewart of the Stern-Stewart firm, whose book, *A Quest For Value*, describes the rationale and mechanics of EVA. *A Quest For Value* is a definitive work about EVA and is essential reading for anyone who desires a deeper understanding of the concept.

Stern-Stewart EVA is defined as the excess return from a business over the cost of capital for the business. Expressed as an equation, EVA is the difference between the "economic" return on capital and the cost of capital, times the amount of capital used. By definition, Stern-Stewart EVA is an annual calculation, which is different from many of the "value-added" calculations done in the life insurance industry that look at increases in the present value of distributable surplus over time.

As an example of a Stern-Stewart EVA calculation, assume that the economic return on capital during a year for a company is 15% after-tax, the cost of capital is 12%, and the amount of capital invested is \$10 million. Then the amount of EVA is the difference between 15% and 12%, or 3%, times \$10 million, or \$300,000. EVA can be negative as well as positive. If the same firm is earning an 8% return on capital, then EVA is $(8\% - 12\%) \times \$10 \text{ million}$, or (\$400,000).

Positive EVA means that shareholder value is being built. The return on capital is higher than the cost of

capital. Negative EVA means that shareholder value is being destroyed. Capital is being invested at a rate lower than the cost of capital, which diminishes shareholder value.

The Stewart book suggests that EVA is more closely correlated with long-term increases in stockholder value than other measures, such as earnings per-share growth. It uses the Coca-Cola Company as one of its prime examples. Coke has been doing EVA calculations for more than 15 years. It publishes a booklet that is distributed to all employees describing EVA and its importance to Coke. Coke's EVA amount has grown at a compounded rate of approximately 20% per year for the past 15 years, which is almost exactly equal to its annual return to stockholders over that time. Coke believes that there is a very close correlation between achieving excess returns on stockholder capital and the value of the enterprise as shown by the company's total return to stockholders.

If a company adopts EVA as a primary tool for measuring its financial progress, then the company will be motivated to plan to increase EVA each year. There are four general ways in which to do this.

First, and most obvious, the return on capital can be increased. The increase in return on capital is equally valid if the beginning EVA is a positive or a negative number. For example, if the cost of capital is 12%, and a company making a 14% return improves it to 16%, then the amount of EVA is doubled and even more stockholder value is being created than before. Additionally, if a company making an 8% return on capital can improve it to 10%, EVA is also improved even though it is still negative, and less stockholder value is being destroyed than previously. This negative EVA

company may still not have long-term viability, because ultimately stockholders who are rational will demand a market return on capital, but it will be on the road to producing positive EVA.

The second way to improve EVA is to use more capital and to deploy it at a rate higher than the cost of capital. Even if the additional capital is invested at a rate lower than the average rate of return of the company, EVA and stockholder value is still being built if the return on the incremental capital is greater than the cost of capital.

Many companies have businesses for which extraordinary returns of 20% or more are made on limited amounts of capital. If the business manager is judged on the rate of return on capital, he may be reluctant to accept additional capital that may reduce his average rate of return. However, if he can invest that additional capital at a rate higher than the cost of capital, he will build EVA even if he reduces his ROI, and stockholder value will be improved.

The third way to improve EVA is to use less capital in businesses for which the return is less than the cost of capital. This can go so far as to scale back or shut down a business that is currently earning less than the cost of capital and has no realistic prospects of improving that return. Then, if the enterprise has no other places to put the capital that is harvested from the business that has been shut down, the company can either buy back stock or pay a dividend to reduce its excess capital.

The fourth way to improve EVA is to reduce the cost of capital. Most public companies have a capital structure that is composed of both equity and debt. Debt is cheaper than equity, and interest payments are tax deductible. To the extent that debt can be substituted in the capital structure for equity, the cost of capital is reduced and EVA increases.

However, there is a practical limit to the amount of debt that an insurer can take on. During the leveraged buyouts of the late 1980s, some industrial companies held debt as high as 90% or more of their capital structure. No insurance holding company can adopt a capital structure that is 90% debt and still maintain good ratings and good relations with insurance regulators. However, more moderate levels of debt are accepted by rating agencies and regulators as an appropriate part of a capital structure.

There are special challenges in calculating Stern-Stewart EVA for a life insurance company that are not present in the industrial companies in which EVA has been successfully adopted. For example, much of the capital of Coke is invested in tangible assets like build-

ings, delivery trucks, and vending machines, while the capital of a life insurance company is substantially invested in intangibles such as deferred acquisition costs.

Another challenge is that the product-earnings cycle for a company like Coke is completed when the sale is made and the customer purchases a container of soft drinks. For an insurance company, the sale of an insurance product is only the start of the relationship with the customer, and the final earnings on the capital invested in the insurance product will not be known for many accounting periods.

My company has been discussing issues related to EVA, some of which include:

- ***Should EVA be calculated for the company as a whole, for its various profit centers, or both?*** I think that EVA is clearly useful for the company as a whole, because it will show the progress in increasing returns to stockholders. However, it is also important for profit-center managers to focus on their returns on capital and EVA because a company will produce positive EVA only if its components are doing the same. So we are looking at doing calculations for both the company as a whole and for profit centers.
- ***What is the “economic” return on capital? How should the numerator of the return on capital calculation be defined, and what should go in the denominator?*** There are a variety of ways that the numerator could be calculated, (1) being based on GAAP principles, (2) statutory principles, or (3) the change in the present value of distributable cash flows (“appraisal value” of the enterprise). We quickly discarded a year-by-year statutory basis because the level of statutory income can be significantly affected by the level of sales and lapses.

We are leaning toward an adjusted GAAP basis. Many actuaries would say that GAAP is, at best, a flawed accounting system and that it would be far better and more theoretically correct to base a calculation on changes in the present value of distributable cash flows. However, in our opinion, GAAP has significant practical advantages over a discounted cash-flow approach, as follows:

- a. GAAP income and returns are routinely calculated as a part of the regular quarterly financial reporting process, while discounted cash flows may be more difficult and complicated to calculate.
- b. GAAP income is well understood by all levels of employees inside the company because it has been calculated on a consistent basis for several decades.

Managers are accustomed to managing to GAAP income targets. We are concerned that discounted cash flows would be seen as a “black box” calculation controlled by actuaries and that modest changes in prospective experience assumptions could have significant effects on EVA targets. Employees’ understanding of the basis for measuring value added is important, because we would like to extend EVA communication to all levels of the company.

- c. GAAP is a primary measuring tool used by investors and financial analysts who are looking at the company, and reflects over the short to medium term how the company is viewed and valued by the investor world.

Some adjustments to be made to GAAP income include spreading realized investment gains over several periods, adjustments for start-up ventures, and for any “one-time” expenses such as write-offs. In addition, we will look at the incidence of GAAP profits on products and may make adjustments if the expected incidence of GAAP return on investment is materially front- or back-ended.

The denominator should be calculated as the total of all forms of capital, including equity, debt, and preferred stock.

- **What is the cost of capital?** The cost of capital should be the weighted average cost of all forms of capital. It is straightforward to calculate the after-tax cost of debt and preferred stock. However, it is more difficult to estimate the cost of equity capital. One popular calculation of the cost of equity capital, the capital-asset pricing model, uses stock market betas, risk-free rates of return, and risk premiums. Stern-Stewart suggests that one should not spend inordinate amounts of time trying to rigorously calculate the cost of equity capital, but rather focus on improving EVA by improving the return on capital or other methods.
- **How is EVA calculated for a profit center?** This question is really three separate questions. The first question is the numerator of the return on capital calculation, which we suggest is adjusted GAAP income plus interest on assigned statutory capital (or RBC related capital).

The second question is the amount of capital used by a profit center, which we suggest is assigned statutory capital plus GAAP adjustments to statutory capital (including DAC, deferred taxes, statutory/GAAP reserve differences, and any other adjust-

ments). As an example of this calculation, consider an SPDA. If the SPDA has statutory and tax reserves equal to account value (which could be the case for a nonsurrender charge SPDA without high interest guarantees), the capital for EVA calculation purposes would be the assigned capital plus any unamortized DAC plus any deferred taxes (including those created through DAC proxy tax). If the same SPDA had statutory and tax reserves less than account value (which could be the case if the SPDA had surrender charges), then the capital from the prior sentence would be reduced by the difference between account value and statutory reserve and would be further affected by deferred taxes created by the difference between account values and tax reserves.

The third question is the cost of capital for a profit center, which should be derived from the total company’s cost of capital and could be adjusted for profit-center-relative risk if an equitable method for calculating risk can be assigned.

- **How can EVA be used to better manage a company?** There are at least three ways that management can be improved. First, EVA can be used to look at whether shareholder value is being built or destroyed at an aggregate company level, and also to assess the relative desirability of individual profit centers. Even if a company is making money, it may be destroying shareholder value. Even if a profit center is growing its income, it may have negative EVA if its returns on capital are inadequate.

Second, EVA can be used to assess new business ventures. Business people should use rigorous modeling and projection to look at new business ventures, but often do not. Adopting EVA and basing compensation on it will give management the incentive to model whether new ventures will build or destroy stockholder value, and then to track the new initiatives against the model.

Third, EVA can be used in compensation. If one accepts that building stockholder value is a primary purpose of a business enterprise, then the compensation structure logically should support that goal. Linking compensation to EVA is a very complicated project, but it is the ultimate way of ensuring that managers will buy into the creation of shareholder wealth as a primary corporate goal.

EVA cannot be implemented without a significant amount of effort. There must be support from the highest levels of the company, both in agreeing with and

pushing for the adoption of EVA and in providing the necessary resources. If EVA marks a change in the way that managers are judged and compensated, then they must be trained as to what EVA is and what steps they

can take to improve EVA. In the end, we believe that the results from moving toward an EVA measurement system will be worth the effort.