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Letter from the Editor

by Thomas Nace

This is the final issue of 2001. I am happy to report that with this issue, we have once again been able to provide to our readership four issues per year on a somewhat regular basis. While this may not seem like much of a feat, it is a goal for our Section. My hat goes off to all of the authors who have contributed to the *Financial Reporter* over the past year. The quality of the articles that have been submitted has been exceptional. Thanks to all of you!

In case you placed one of the 2001 issues aside, intending to get back to it when you had more time, but have since lost your yellow-sticky reminder, the following list might jog your memory. Below are some of the topics covered by technical articles that have appeared this past year in the *Financial Reporter:*

- Update on the UVS Project
- DAC unlocking for variable annuities
- Admitting an asset under new codification rules
- UL nonforfeiture issues
- The proposed new Standard Nonforfeiture Law
- Fair Value (2 different articles)
- Update on the Liquidity Working Group
- GAAP reserves for GMDB's
- GAAP for non-traditional products
- XXX issues, including the effect on deficiency reserves
- PGAAP VOBA within a fair value of liabilities context

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Why More U.S.A. Life Insurance Companies Are Considering Economic Value as an Additional Internal Accounting System

by Armand de Palo

Economic Value is an accounting method that was not widely used in the United States, but recently has been adopted by an increasing number of U.S.A. insurance companies. The reasons for using Economic Value vary by company, but part of this increased use is due to the fact that many of these companies are now owned by foreign parent companies. International companies have to deal with accounting systems that vary widely by country, and they therefore, need a consistent internal accounting system for all subsidiaries.

Countries like Canada[1] are now also looking to establish public disclosure standards, which currently do not exist because Economic Value is not normally used for public disclosure purposes. Although one of the biggest advantages of Economic Value is that it can be linked to pricing and is not subject to standardized rules, standards are needed if Economic Value numbers are to be disclosed to the public.

Many U.S.A. insurance companies may ask why they should consider the additional expense of adopting yet another accounting system that is only useful for internal reporting, if they are not owned by a foreign parent company. The answer from those companies

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already using this method is that none of the current accounting systems provide management with useful information to manage the company. Insurance companies are regulated on a statutory basis and management must have a means to better understand the effect of all changes on a statutory basis, both for current and future earnings.

The following is a brief comparison between Economic Value and the various other accounting methods currently in place:

Statutory Accounting is a solvency-based method of accounting and is useful for state regulators. It does not assign any value to the future statutory earnings that are expected to be earned on in-force business. If you write new business the sale looks like a loss and if you lapse business it may appear to be a gain. A company that is going out of business may look very profitable on a Statutory Accounting basis, even if true Economic Value is not growing.

Tax Accounting is similar to Statutory Accounting, except that minimum statutory reserve bases are used with higher discount rates. It inherently has all the same problems as Statutory Accounting with respect to understanding the true profitability of the company.

GAAP Accounting is governed by rules that are set by accountants so as to try to reflect some uniformity between companies. While GAAP may amortize new business or acquisition expenses over the life of the business, it does not show the value created by new sales. Its purpose is to give an investor a reasonable estimate of expected annual profits. GAAP is also dependent upon the past; this means that two companies that have identical in-force may have very different current GAAP earnings and GAAP equity because of the way they got there.

Note: Some companies use a modification to GAAP that they call "Value Added," but this is not the same as Economic Value, which is based on a statutory accounting system and not subject to GAAP rules.

Economic Value helps to determine whether a company is actually creating or destroying value. Economic Value has no memory of the past. It only looks at what statutory capital exists and the value of future statutory earnings on existing in-force. Since the method values the future earnings on existing in-force, anything that affects the in-force can have a very large effect on Economic Value and the change in Economic Value in any year. The advantage to management is that any event that has a significant effect, either good or bad, on Economic Value will be brought to management's attention.

> *"We can define 'economic value' as the sum of the current and future statutory value of the company."*

One of the key advantages to using Economic Value is that, unlike GAAP, it is not a publicly disclosed result and therefore not subject to arbitrary external rules as to how it should be calculated. It therefore can provide far more meaningful numbers to the company's management since it can be consistent with and directly linked to the pricing assumptions and methods of the company's products. It is actually more of an internal management information system. However, because it is not subject to external rules, there is also variation in how this method is actually applied and defined in different companies.

We can define **Economic Value** as the sum of the current and future statutory value of the company. It is calculated at the valuation date as the sum of free (or excess) surplus and the present value of distributable earnings, where distributable earnings equal after-tax statutory earnings plus after-tax investment income on target surplus less the increase in target surplus. Free (or excess) surplus is the excess of total surplus over target surplus. If the company pays dividends to stockholders during a given year, then you need to look at the change in Economic Value before the payment of these dividends.

The amount of target surplus is a risk adjustment. Many companies use what they believe is the minimum Risk Based Capital that the company can hold. However, other measures of risk are also used.

A Hurdle Interest Rate is used to calculate the present value of the future after-tax expected statutory earnings. The Hurdle Interest Rate chosen is very important. If justified, this rate can vary by company or product line. If you choose a high rate, the result is a lower Economic Value, but the annual change, particularly on a percentage basis, is larger. The rate chosen should be a long-term rate that is not changed very often. Some actuaries believe that it should be the company's cost of capital rate; others believe it should be directly related to the discount rate used for the pricing of products. It is critical that the Hurdle Interest Rate be at least as high as the company's real cost of capital.

Mutual life companies that finance new business with after-tax internal retained capital may use a lower rate than a Stock life company that uses a pre-tax outside capital rate. If a mutual life company demutualizes, the Economic Value, at least for new business, may need to be revalued using a higher hurdle rate consistent with the cost of outside capital. In addition, if used to evaluate an

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acquisition, an external cost of capital rate should be used, regardless of the type of company.

Economic Value does not usually include the value of future new business. However, if it is to be used to value an acquisition, you can derive the **Appraisal Value** by adding the Economic Value of assumed future new business. If future sales are valued, it is dependent upon new sales projections, which are subjective. Changes in these projected sales can have major changes on the total Appraisal Value. It is therefore very useful to report current statutory capital, the future economic value of existing in-force and the economic value of assumed future sales as three separate items.

The annual change in Economic Value, sometimes called **Economic Gain,** is useful for determining whether the company has actually increased in Economic Value during the year. If dividends are paid to stockholders, they need to be added to this amount. Even if the company has not written any new business and experience is as expected, this change is generally a positive amount since, the Economic Value is expected to grow by the Hurdle Interest Rate each year. The relative change in Economic Value between years is more important than the absolute value since it is the change in Economic Value that provides useful information to management.

To determine whether a company has created additional value in excess of the expected return on in-force business, a Gain and Loss analysis that calculates the difference between expected growth and actual growth is used. It demonstrates whether the company has created or destroyed company economic value; this is sometimes called **Economic Value Added.** If Economic Value is not growing at least as fast as the Hurdle Interest Rate, the company is not creating additional economic value. Also, a company can appear to be profitable, but may actually be destroying value if value is not growing at least as fast as the cost of capital (i.e. Hurdle Interest Rate).

If actual results are as expected, the only element that is creating new Economic Value is new sales. It is very important in any Gain and Loss analysis to separate all statutory accounting information between in-force and new business. This allows you to see whether new sales have added value to the overall company. If new sales show a loss, it means that the company is selling unprofitable new business. The in-force Gain and Loss can further be analyzed by gain by source. It is also important to separate Gain and Loss variances between what happened in a given year from the variance in future value.

The models used also need to be consistent with how statutory accounting is split between starting in-force and new business in the year. It is important to realize that first year is not the same as new business in the year.

In addition to providing senior management with important company growth information, Economic Value is also an excellent basis for long-term compensation of senior management since the compensation reward would be linked to real growth in company value. If this type of compensation program is established, the Economic Value of the company would have to be converted to a value per unit and compensation would be linked to the change in the value of these units. Since Economic Value is based on a model of the in-force, any change in value due to a change in the model should affect the number of units, but not the value of the units. Only events that actually change the real Economic Value of the company should impact upon the units used for compensation. For example, a change in pricing assumptions, which is a real event, changes both Economic Value and the value of each unit.

Even though the results of this methodology are not normally disclosed to the public, it may be desirable to have an outside consultant review the method for consistency in application between years, particularly if it is used as a basis to pay compensation.

The administrative cost of calculating Economic Value is not minor and, if not supported by senior management, the adoption of an additional accounting system will create a problem. Therefore, if the company's actuaries want to adopt this useful tool, they must demonstrate to senior management how it will be used to benefit the management of the company.

If a company does adopt this method, it should also expect that it will take several years to fully implement and that each year the actuary will refine the model. Therefore, an actuary must calculate any change that is merely due to some refinement of the model. For the long term, however, these models will give the company a real tool to project future statutory earnings of the company, which will be useful in the dynamic management of the company's statutory surplus.

If a company chooses to consider this additional accounting method, hiring a consultant that has actually helped develop this methodology for a peer company would be very useful. Some software packages are also beginning to add Economic Value to the functions that are available.

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Footnotes

1 "Interim Draft Paper on the Considerations in the Determination of Embedded Value for Public Disclosure in Canada," The Committee on the Role of the Appointed/Valuation Actuary, Canadian Institute of Actuaries, August 2000