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Use of Embedded Values (Shareholder Value) by U.S. and European Insurance Companies

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Over the past several years, many well-known corporations, such as Coca-Cola, AT&T, and Quaker Oats, have begun using the concept of economic value-added (EVA) to measure financial performance and to determine incentive compensation for management. The primary goal of an EVA system is to increase shareholder value. EVA is basically a company's net operating profit after taxes and after reflecting the cost of capital. Instead of focusing only on earnings, the EVA system reflects how much capital is needed to generate those earnings. If the discounted cash flows from a business exceed the cost of the capital used to generate those cash flows, then value has been created for the shareholders.

A similar concept has been developed in the life insurance industry. Several companies are now evaluating financial performance based on the concept of embedded value. Some companies refer to this same concept as shareholder value. The embedded value or shareholder value of an insurance operation equals;

- Adjusted capital and surplus

  plus

- Discounted value of future profits on in-force business.

Both the adjusted capital and surplus and the value of future profits reflect the cost of the capital required to support the in-force business, which is not available for distribution to shareholders.

Some companies also include a third component in their definition of embedded value to reflect the value of future business. When the value of future business is included, this value is often referred to as appraisal value.

Embedded value is expected to increase from the beginning of the year to the end of the year by the required return on adjusted capital and surplus, plus the discount rate times the discounted value of future profits at the beginning of the year. After adjusting for these expected changes in embedded value (and any capital infusion or shareholder dividends paid), any additional increase (decrease) in embedded value shows that the current year's operations created new value (destroyed value).

To determine the extent to which major U.S. and European insurers are using the embedded value concept, consultants from Milliman & Robertson and from Bacon & Woodrow surveyed senior executives of selected large companies. For companies currently using embedded values to measure financial performance, we wanted to learn their views on the advantages and limitations of the embedded value concept, and whether these companies are using embedded values as a basis for incentive compensation for management.

Survey Results

U.S. STOCK COMPANIES

All but one of the companies surveyed use the embedded value concept. Although one company has used the concept for seven years, the others using embedded values have been doing so for two years or less. Some of the newer users consider the process to be in the implementation stage and are still trying to get comfortable with the concepts and how to interpret the results.

All companies using embedded values today continue to monitor and report financial results on a generally accepted accounting principles (GAAP) basis as well. This is necessary because of regulatory requirements and because GAAP results continue to be the primary basis for evaluating companies in the financial markets.

U.S. MUTUAL COMPANIES

Although several of the mutual companies have studied the concept in great detail, none has yet implemented the embedded value concept on a company-wide basis. However, one of the surveyed companies has been using embedded values for several years to evaluate the results of its international operations.

EUROPEAN STOCK COMPANIES

Most companies surveyed are using the embedded-value concept to evaluate financial performance, several for six years or longer. Two European insurers using embedded values also use the accruals method of accounting to evaluate financial performance.

COMPANIES SURVEYED

We spoke with senior executives from the following insurance companies: U.S. Stock Companies; U.S. Mutual Companies; European Stock Companies; AEGON; John Hancock; Allstate; Metropolitan Life; Allianz; CIGNA; New York Life; AXA; Equitable Life; Northwestern Mutual; Commercial Union; Lincoln National; Prudential; ING; Prudential Corporation; and Transamerica.

Advantages and Limitations of the Embedded Value Concept

Most companies using the embedded value concept regard it as an effective way to evaluate financial performance, although some of the newer users said it was too early to reach a conclusion.

Survey respondents identified the following advantages of the embedded value concept for measuring financial performance. The embedded value concept:

- Enables management to make better decisions by providing one measure that encompasses all activities
- Reports the whole effect of a change in management action or a change in experience assumption in the current time period, whereas GAAP and statutory accounting methods recognize either part of or none of the effect in the current period
- Focuses on a longer time horizon than GAAP or statutory accounting methods
- Allows management to evaluate the impact of its actions by measuring

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the differences in embedded values resulting from various decisions

- Is particularly meaningful for evaluating results for life insurance, since the long-term focus of embedded values matches the nature of the product
- Clearly highlights where value is being created and where it is being destroyed
- Is an effective tool for making capital allocation decisions, because it reflects the impact of the use of capital to generate earnings
- Leads to analysis of actual expenses, new business production, investment returns and persistency against projected assumptions
- Improves communication among business units and between the head office and foreign operations by a common language and approach.

The companies using embedded values also identified certain *limitations* to the method:

- There are no official rules or interpretations for the method (such as by FASB or the NAIC), which results in different methods among companies and the potential for manipulating results.
- It cannot currently be used as a U.S. company's primary financial measure, because it is not accepted by capital markets. (However, the capital markets are beginning to recognize the useful information provided by insurance company embedded values.)
- The calculations are complex and time-consuming.
- The learning curve is difficult for many managers, requiring considerable time for everyone to understand and to acclimatize.
- Sensitivity to some assumptions is high, so embedded value results may change significantly from one year to the next. (This makes analyzing change in embedded values as important as the embedded value result itself).
- The measurement of trends over several time periods may be distorted by changes in assumptions.
- It is difficult to ensure that the risk discount rate appropriately reflects shifts in the current risk profile over time or the current differences in risk profile by line of business.

However, the companies using this concept were able to address these limitations and found embedded values to be a useful way to evaluate financial performance.

If the Embedded Value Concept Was Considered, Why Was It Rejected?

For companies not using the embedded-value concept, the primary measures of financial performance include statutory internal rate of return, modified GAAP and key drivers (such as agent recruiting, agent retention, expense levels, lapse rates, and so on).

Several of the companies not using the embedded value concept spent a significant amount of time studying this approach, but did not implement it. Some of the reasons given for not implementing embedded values include:

- The process is too difficult to implement, particularly in large companies with many autonomous units that cannot agree on ground rules.
- Results may be volatile and too sensitive to changes in assumptions.
- Management is uncomfortable with any system not based on GAAP principles, which allows benchmarking of results against competitors.
- It is difficult to link projected dividend scales with projected economic assumptions.
- The company is too busy implementing GAAP for mutuals to consider other methods.
- The return on investment on new business is less than the company's hurdle rate, so the embedded value approach would consistently show value being destroyed.

Use of Embedded Values for Management Incentive Compensation

While many of the companies surveyed are using embedded values to measure financial performance, few are using it to determine incentive compensation for management. One U.S. company surveyed determines 50% of senior management's incentive compensation using embedded values, with the other 50% based on GAAP return on equity. Another U.S. company is in the process of changing its management incentive compensation plan to incorporate the embedded value concept. Only one European company surveyed bases incentive compensation on embedded values. For this company, embedded values is a key component of the incentive compensation plan. Several other European companies are now discussing the possible use of embedded values for incentive compensation.

The most frequent reason companies give for not using the embedded-value concept in determining incentive compensation is that the process is too new and the companies first need to resolve all technical issues associated with implementation. One company that has used embedded values for several years to evaluate financial performance said that, because of the highly political nature of the incentive compensation formula, it continues to use traditional measures. According to companies using embedded values for defining incentive compensation, two other benefits in addition to those described above are:

- Management reacts more quickly to pricing and experience problems
- The process has a direct impact on a company's decisions to enter or continue in a line of business.

Implementation Suggestions

Several of the companies surveyed offered useful suggestions for companies considering implementation of an embedded-value system. These suggestions include:

- Do not rush implementation. One European company, as part of its implementation process, allowed five years to resolve technical issues across all of its subsidiaries and seven years to fully educate senior management on the meaning of the results. Several companies

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iterated this same general suggestion.

- Do not discontinue the current approach until all technical issues and educational aspects are fully addressed.
- Do develop a set of guidelines. To ensure uniformity in calculation from one period to the next and among business units, as well as to prevent manipulation, each company needs to develop its own guidelines on how the embedded value process will work. These guidelines should address all issues associated with the embedded value process, including defining responsibility for setting assumptions and defining the process for revising assumptions.

Future of Embedded Values

We anticipate increased use of the embedded value approach as more companies recognize its benefits for measuring financial performance. While implementation is not easy, companies that have gone through the effort believe the embedded value concept provides better information for management and thereby improves the actual decisions made by its managers.

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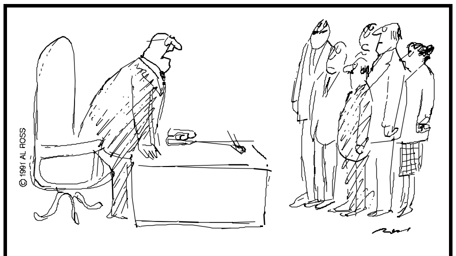
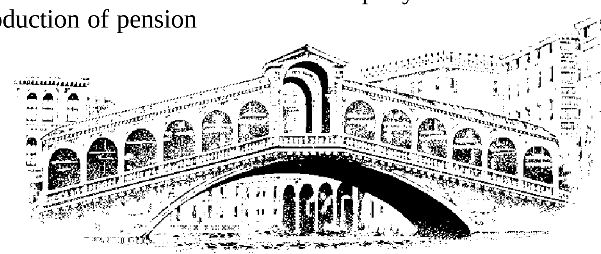


"It has come to my attention that one of you called the profit motive 'a figure of speech'?"

The Italian Life Insurance Market

by Alessandro Corsi

The Italian life insurance sector has been influenced by dramatic and historic changes over the last few years. These changes have stemmed from the creation of the insurance common E.U. market, the strengthening of new competitors into the market such as banks and financial consultants, and the recent modifications in households' savings profile. Also, in the last few years, the social security pension scheme has been reformed through a change in the method of calculating social security pensions and a progressive increase in the retirement age. The introduction of pension funds, which came into effect in 1997, will have to compensate for future lower state pensions, thus creating new opportunities and challenges for life offices, although in the context of a more aggressive environment.



Total life premium income amounted to about 37,100 billion Italian lire in 1997 [roughly $21 billion (U S.) at the December 31 exchange rate of $1 (U.S.) to 1,760 (ITL)], 41.5% over the previous year's figure and representing close to 45% of the total insurance sector. The life market share was only around 25% in 1990. As to the different business lines within the life market, well over 90% is individual business, the remainder being group business which has been quite stagnant over the last few years. As to market concentration, of 127 companies carrying on life business at the end of 1996 (105 pure life, 22 composite offices), the top-ten-ranked companies had a market share of 55%, 72% taking into account the first 20-ranked. It may be of some interest to locate the Italian life market within the European Union: in 1996 Italy was only the fifth-ranked market with premiums of ITL 26,100 billion (5.4% of the total U.E. life market, 1.4% on GNP), behind France with ITL 137,700 billion (6.0% of GNP), the U.K. with ITL 118,400 billion (6.2% of GNP), Germany with ITL 88,900 billion (2.6% of GNP), and The Netherlands with ITL 29,500 billion.

As to distribution channels, trends have been changing dramatically throughout the 1990s. Traditional channels, which are basically career-tied agents and companies' employed sales forces, continue to be the largest channel. However, their market share has fallen rapidly from 82% in 1991 to below 60% in 1997. On the other hand, banks, either through a totally owned life office or through a joint venture with an insurer, gained remarkable market shares at the expense of traditional outlets. Their share grew from 4% in 1991 to nearly 25% in 1997 with more than 50% of new sales. The third major distribution channel consists of financial consultants, which are the captive sales network of mutual fund companies and financial intermediation firms known as the Securities Intermediation Company (SMI). They have maintained a more or less constant share of approximately 15% for the last few years, thanks to this channel offering global advice on all financial needs to their clientele. They have effectively segmented the market and sell tailor-made products to medium and high segments. In life business, brokers play a marginal role, with a marginal market share concentrated in medium- to large-sized group schemes.

Generally speaking, consistent with a trend which can be observed Europe-wide, Italy is experiencing a progressive

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