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Pension Cost Projections

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In management circles, one of the most sought-after commodities is quality information — information which is timely, complete and accurate enough to allow for sound business decisions.

And yet in a rapidly changing environment, management frequently finds itself forced into making far-reaching corporate decisions with less than complete knowledge of the consequences or possible outcomes.

This has never been truer than in today's pension arena, where chief financial officers and corporate benefit managers are asked to analyze the future effect of plan changes and legislative proposals or to forecast the impact of a merger or change in investment strategy.

Such dynamic problems require a sophisticated modeling system capable of analyzing the relative impact of the variables and providing management with information which may act upon.

Actuarial Valuations

The standard actuarial valuation involves an analysis of a pension plan at a particular point in time. This static evaluation begins with a snapshot of three items:

- Current employees and retirees.
- Current pension plan provisions.
- Current assets.

From this snapshot, the valuation produces a forecast of the payment of benefits to these "known" individuals and translates these benefit payments to a current pension liability and associated annual cost. This process is generally repeated each year.

Over time, fluctuations in one or more of the three parameters — population, plan provisions and assets — will be reflected in the valuation report in the year following the change.

Projection Valuation

Viewed in its simplest form, a projection valuation represents a series of annual valuations performed at a single point in time, but applied to successive points along a plan's time horizon.

By introducing known or expected changes and trends, a pension manager is able to predict the status of a plan at any point along the continuum.

Just as real experience fluctuates over time, it is important to introduce scenarios of known or expected future changes in population, plan provisions and asset performance to achieve an understanding of the dynamics of the variables.

In doing so, the pension manager is able to quantify the impact of actions such as:

- Changing actuarial assumptions
- Impact of investment strategies
- Variable funding policies
- Forecasting human resources expenditures
- Pension plan — An asset or liability
- Business expansion or contraction
- Trustee liability
- Stockholders' equity
- Unions and employee concerns
- Regulatory agency requirements

Case Study Results

Perhaps to better understand the value of such dynamic modeling tools we should take a look at three case studies:

Case A

Company A has sponsored many plans in the U.S. and Canada and has experienced a decrease in its annual pension contributions expressed as a percentage of payroll during the preceding few years.

Management had become interested in the hypothesis that an investment portfolio weighted toward dedicated and immunized high-quality bonds would result in zero or minimal contributions for the next several years. While management acknowledged that an equity portfolio might have produced greater long-term gains, stability of the fund was a preferred position.

By developing the variables of the investment strategy, management learned that it could indeed manage the annual cost of the pension plan over the next 10 years. In particular, pension expense would decrease markedly in the first year, then rise gradually to expected levels during the next 10 years. Book liability would gradually decrease over the same period of time.

Case B

Corporate executives had become concerned about the appropriateness of the funding level of their state's employee pension system. While the funding requirements were contained in the state regulations, there had been considerable legislative pressure to divert current pension contributions to pay for other state program needs. The study clearly demonstrated that, while failure to meet the current funding levels may provide immediate availability of dollars for other programs, the result could cause a crisis in the years when the cost rose sharply.

Case C

Trustees of a multi-employer fund were concerned about the long-term relationship between current cost and future benefits. More precisely, with the expectations of a declining population, what level of benefits could be supported and what would be the threshold of the contributions and investment performance?

The study illustrated the relative progression and the level of the Unfunded Vested Benefit Liability, both where there was no increase in contributions and benefits and with variable annual increases.

Managers must utilize tools that allow them to make responsible decisions today and for the future managers who follow them. The analysis is cyclical, progressing from planning through refinement and conclusion stages — finally reaching the point where the executive has the knowledge to ask the deeper, more complex questions which lead to effective management.

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TSA Paper Accepted

The most recent paper accepted for publication in the *Transactions* is "Relationships Between Statutory and Generally Accepted Accounting Principles" by Louis J. Lombardi. This will appear in Volume 40.