

Government regulation of private pension plans in the United States is based largely on the Employee Retirement Income Security Act of 1974 (ERISA). ERISA affected virtually all areas of private pension plans, but the most important provisions to actuaries were those establishing minimum funding standards. Rather than spell out specific methods and assumptions to be used, the drafters of ERISA relied on the professional judgment of qualified pension actuaries. ERISA also spells out who is a qualified pension actuary (called an "enrolled actuary").

Thus, the law requires that the administrator of an employee pension plan subject to ERISA "shall engage, on behalf of all plan participants, an enrolled actuary." This enrolled actuary:

"shall utilize such assumptions and techniques [that are]...

- (i) in the aggregate reasonably related to the experience of the plan and to reasonable expectations; and
- (ii) represent his best estimate of anticipated experience under the plan."

The role of the enrolled actuary as contemplated by ERISA is important and requires high level decision making. The actuary is to review the total plan and the funding for it and to make an informed professional judgment as to whether that funding is adequate. This is in marked contrast to many other countries, where the actuary certifies only that the valuation was performed according to government-specified assumptions and on a government-specified actuarial cost method.

The responsibility of the enrolled actuary is to all plan participants, and not to the employer maintaining the plan. Presumably, this was done to avoid pressure from employers which would result in assumptions or techniques leading to under-funding of the pension plan.

One could argue that ERISA actually has no effect on the actuary's selection of assumptions and methods. If an actuary is to satisfy his professional responsibilities, he will necessarily be using assumptions and methods which are "in the aggregate reasonable" and which represent his "best estimate." Viewed this way, the post-ERISA actuary does not need to be more skilled than his pre-ERISA counterpart; they are actually performing the same task.

Paradoxically, however, many of the regulations issued to implement ERISA have served to restrict the exercise of professional judgment by the pension actuary. This has been done by U.S. government agencies issuing incredibly detailed regulations on what can and cannot be done in the valuation of a pension plan. Thus, ERISA in practice has tended to encourage actuaries to comply with governmentally mandated norms, rather than develop an independent appraisal of the appropriate funding requirements. This is particularly unfortunate because many of the regulatory positions are developed on a criterion other than what is the best approach for funding pension plans.

The agency charged with administering and interpreting the minimum funding standards of ERISA is the Internal Revenue Service. This is a natural choice, but in some respects a very odd choice. It is a natural choice because of the high quality of the IRS staff; they are clearly capable of understanding and dealing with complex pension matters. On the other hand, the IRS is the nation's tax collector. Since the valuation method and assumptions used for minimum funding purposes must also be used for establishing the maximum tax-deductible contribution, to the extent that the IRS defines and enforces minimum funding standards that require greater contributions to private pension plans, it reduces taxable

revenues in the current year. This obviously frustrates the agency's primary purpose. Thus, the IRS suffers from an inherent conflict of interest; and this can give rise to some rather odd regulatory positions.

An example of how this works in practice may make the problem clearer. Consider the application of the maximum dollar limitations on benefits from private pension plans. ERISA initially established that qualified pension trusts may not provide for the payment to a participant of annual benefits which exceed \$75,000. This \$75,000 was to be automatically indexed to the CPI for years beginning in 1976. By 1982, this \$75,000 limit had grown to \$136,425. At that time, TEFRA reduced the maximum to \$90,000 and suspended automatic indexing until 1986. The Tax Reform Act of 1984 further suspended the maximum indexing until 1988.

In the valuation of a pension plan and the establishment of an appropriate contribution for the year, this maximum benefit obviously plays an important part. It is, after all, a vital factor in the determination of the projected benefit actually payable from the plan and thus affects the actuary's "best estimate of anticipated experience under the plan." In immediate post-ERISA valuations, actuaries factored the maximum benefit into their calculations by making a specific assumption with regard to future increases in the CPI. The assumed CPI increases could then be used to estimate the maximum dollar benefit payable in the year the participant is assumed to retire. The CPI assumption would be set with regard to the level of the other economic assumptions in the valuation. That is, the economic assumptions are intimately related to one another and form a package whose reasonableness can be determined in the aggregate. For example, an assumption of an 8% interest rate and a 5% CPI increase could be considered as a reasonable package. The assumption of a 4% interest rate with a 5% CPI increase would, on the other hand, seem rather strange.

The IRS disrupted this state of affairs with the position that it was unacceptable to assume any increase in the maximum benefit limitation. This rather odd interpretation was based on the reasoning that the increases in the maximum dollar amount payable from the plan were amendments to the plan which occurred in future years. (In the United States, it is not allowable to fund for future plan amendments.) Some plans, mostly those for which the introduction of the maximum benefit had little impact, complied with the IRS interpretation. Many other plans chose to disregard the IRS position, feeling that it had no legal basis and would not stand up in court. The IRS was presumably not too confident of their position either; they arranged to have inserted in a 1982 tax bill a provision which specifically disallowed tax deductions for contributions based on valuations which assumed future increases in the cost of living.

What is the impact of this on funding? After the 1982 reduction of the maximum to \$90,000, we have the following situation. Let us assume that a plan is providing a benefit equal to one-half of final pay less one-half of Social Security at age 65 (a not uncommon benefit). The maximum benefit which can be funded for is \$90,000 a year. The table below shows the approximate salary at which this maximum benefit would be reached under two sets of assumptions: 6% salary increases/4% Social Security increases, and 8% salary increases/6% Social Security increases.

Age On Valuation Date	Salary At Which \$90,000 Projected Benefit is Reached	
	6% Salary Increases/ 4% Social Security Increases	8% Salary Increases/ 6% Social Security Increases
55	\$107,000	\$ 90,000
45	62,000	44,000
35	36,000	22,000
25	21,000	12,000

Any participant with a salary in excess of the salary shown for his age would not have his total projected benefit recognized in the valuation. As these tables show, at the higher salary

increase levels there is an understatement of the plan benefit for a significant number of participants in the typical pension plan. For instance, at the 8% salary increase level, all individuals earning more than \$22,000 at age 35 will have an understatement of their projected benefit because of the TEFRA funding provision. Even at the 6% salary increase level, there is still a good chance for understatement of the benefits. If the plan is one covering highly paid people, this can result in serious under-funding. Note that although the limitation on the benefit that can be projected occurs only for higher paid individuals, the under-funding that results affects all covered participants irrespective of their level of pay or level of benefit from the plan.

For some relatively highly paid groups, valuations with and without a projected increase in the maximum dollar benefit could easily show a difference in the present value of benefits of 25%. What is the obligation of the enrolled actuary under such a circumstance? It would seem as though the requirement of using a 0% CPI for maximum benefit purposes would preclude certain sets of assumptions. For instance, if the actuary was inclined, in the absence of any government requirements, to use a set of assumptions such as the following:

- 8% investment return,
- 7% salary increases,
- 5% Social Security increases, and
- 4% CPI increases,

he should probably run two valuations: one with a cost of living adjustment for the maximum pension benefit payable and one without. If there is a substantial difference between the two, the actuary must consider his course of action. He clearly should not allow the legal requirement of a 0% increase in maximum benefits to be used for ERISA minimum funding purposes to override his professional responsibility to his client. He must inform the plan sponsor of what he regards as the reasonable funding level;

presumably this is based on the package of assumptions with an increasing maximum benefit. The dilemma now facing the plan sponsor is whether to contribute an appropriate amount even if he does not get tax relief on the entire contribution or to contribute only what is tax-deductible and thus under-fund the plan.

What should be done about the valuation for ERISA minimum funding standards? This is more difficult. One alternative is simply to use all other assumptions that the actuary regards as reasonable, but to use the 0% increase in maximum benefit. This is presumably the result the IRS intends. But, can the actuary then in good conscience certify that this package of assumptions "is in the aggregate reasonable"?

The other alternative is to search for another package of assumptions which can use the 0% increase in the maximum benefit and yet still develop what he regards as the proper funding level. For instance, the above set of assumptions with a CPI increase for the maximum benefit might be equivalent to the following set with no CPI increase:

- 6% investment return,
- 4% salary increases,
- 3% Social Security increases, and
- 0% CPI increases.

This is clearly not what was intended by the IRS. (Why require the actuary to go to all of the trouble of carrying out two or three valuations to establish a funding level that he can determine directly with his first set of assumptions?) However, it is difficult to see how the actuary can maintain that a package of assumptions which results in a present value of benefits, and hence a funding level, much lower than what he believes to be proper is "his best estimate of anticipated experience under the plan." We have seen many debates on explicit versus implicit assumptions in years gone by. In this case, the net effect is to

prevent the actuary from using explicit assumptions for government reporting purposes.

Perhaps the most unfortunate aspect of this state of affairs is the effect on the development of new actuaries. Older, more experienced actuaries will be familiar with forming independent judgments as part of the valuation process. Currently, however, the pension examinations of the Society of Actuaries are jointly administered with the governmental body responsible for "enrolled" actuaries. It should come as no surprise to find that detailed knowledge of the IRS position is what is reflected in the examinations for enrolled actuaries. Young actuaries coming up through an examination system which focuses almost exclusively on the trees (or individual limbs) and not the forest will have given insufficient consideration to the broader implications of their methods and assumptions.

The example that this paper has focused on is drawn from U.S. experience, but the dangers are present in many countries. When governmental agencies or other bodies lay down the "one correct method" to be followed, there is a tendency to view the valuation of a pension plan as merely a mechanical process, with the decision making already completed. In reality, in such circumstances the actuary must be prepared to exercise his professional judgment and form his own opinion as to appropriate methods and assumptions. If not, our profession risks turning into a group of highly paid clerks.