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## DELAYED RETIREMENT CREDITS

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In many pension plans and social insurance programs, monthly pensions are increased if retirement is delayed beyond the normal retirement age. The questions that arise are, first, Should there be a delayed retirement credit?, a query that perhaps has different answers for social insurance than for private pensions; second, How should such a delayed retirement credit be calculated?

### Should There Be . . . ?

If social insurance is regarded as a casualty type in which benefits are paid only if the risk insured against (in this case loss of earned income because of death, disability or retirement) occurs, then a delayed retirement credit is not warranted. A social insurance benefit is defined, not in terms of a lump sum equivalent but of a monthly income; the replacement needs met by this income do not depend on when retirement occurs. For OASDI in the United States, the replacement ratio theory has become so dominant in setting benefit levels that continuing the present delayed retirement credit seems illogical.

Turning to private plans, one must ask whether these are savings programs or insurance programs. If pensions are deferred compensation, surely they are savings programs, but if so why doesn't a terminating non-vested employee receive something?

Therefore, it seems that a corporate pension plan should be looked upon as an insurance arrangement for replacing part of an employee's salary when he retires. From this it follows that deferred vested benefits are equivalent to paid up policies—which again argues against delayed retirement credits other than those that arise from additional compensated service.

The argument for delayed retirement credits is that employees should not lose the money they would have received had they retired at the normal age, and that they ought to be compensated for the risk they took by delaying retirement. But, if they continued to work, the usual reason for delaying retirement, have they really taken any financial risk since their earnings would almost always be larger than the foregone pension? By giving a delayed retirement credit, isn't the em-

ployee being paid twice for the same period, especially in a non-contributory plan? Also, if the employee is to be assured of not losing money, why not pay benefits from normal retirement age whether or not retirement occurred?

### If Yes, How Much?

Despite the above arguments, many pension plans do provide for delayed retirement credits. The plans typically say that the benefits will be actuarially equivalent to the normal retirement benefit beginning at the normal retirement age. Usually the percentage increase (I) in the benefit is calculated (in standard life contingencies notation) as:

$$I = \frac{N}{N_x} r \quad (1)$$

where  $r$  and  $x$  are the normal and actual retirement ages.

By this approach, reversions, from those who die while still in service after the normal retirement age, accrue to increase the benefits to those who reach delayed retirement. Thus, measured at the point of delayed retirement, although the total amount paid to the group as a whole is unchanged, the individual survivors receive greater value than if they had begun to receive benefits at normal retirement. This, be it noted, ignores the ERISA requirement that those who have died must be assumed to have elected a joint and survivor form of payment.

Should the reversions go to these survivors, or should they be used for the benefit of the plan as a whole? To leave individual surviving employees in the same position they would have been if they had begun to receive benefits at normal retirement age, the following formula might be used:

$$I = \frac{S_{\overline{x}|r}}{ax} \quad (2)$$

In formula (2), benefits that would have been paid between the normal and actual retirement ages are accumulated at interest to the actual retirement age, and the resulting amount is then spread over the rest of the employees' lives. Reversions remain in the pension fund, and the ERISA requirement is not as great a problem since the joint and survivor reduction can be computed at the normal retirement age.

It must be determined whether the

procedure of formula (2) can be interpreted as being actuarially equivalent within the meaning of the pension instrument. If the words "actuarially equivalent" imply use of probabilities, it can be so interpreted since there is no uncertainty as to the retiree's surviving from normal to delayed retirement age. But to avoid problems, plan designers should put special wording into the plan document to conform to what formula (2) says.  $\square$

### Notice To Users Of The Actuarial Aptitude Test

This test was developed for use by those who have not passed Part I; as demonstrated in the Test Manual, its scores correlate with performance on the Scholastic Aptitude Test and the Part I exam. It is essential that a person not take the test more than once, nor have any advance indication what the questions will be.

An employment agency has recently been found to have been administering the test itself to people it was planning to recommend as actuarial students to life companies and consulting firms. In one instance at least, that agency allowed a student who had scored poorly to take the booklet home and work on the questions again. Prospective employers were finding that candidates from that agency were scoring well on the test, even when their S.A.T. scores were not favorable.

WE REMIND EMPLOYERS THAT THE ACTUARIAL APTITUDE TEST HAS NOT BEEN VALIDATED FOR EMPLOYMENT DISCRIMINATION PURPOSES, AND SHOULD NOT BE USED IN MAKING EMPLOYMENT DECISIONS SUCH AS HIRING, PROMOTION, OR CHANGES OF POSITION.

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### E. & E. Quiz

(Answer to Quiz on page 1)

F.S.A.s numbered 244 (21%). Those given G.R.E. credit didn't do quite as well as those who passed Part I. Another 148 (12%) were Associates.

L.N.C.