

Longevity Risk & Retirement

By Zorast Wadia, FSA, MAAA, E.A.

Over the last 25 years, we have witnessed the shift from defined benefit (DB) plans to defined contribution (DC) plans in the private sector. From a historical standpoint, it is quite remarkable that DC plans, initially devised as a supplementary retirement savings vehicle, have essentially replaced the DB plan and gone on to be the primary retirement plan sponsored by employers. While we acknowledge this extreme reversal in the retirement landscape, we question its stability in the long run because of longevity risk.

For purposes of this paper, longevity risk is defined as the risk of running out of money during retirement. Having benefits from a DC plan as a primary retirement source subjects plan participants to longevity risk. Based on average life expectancy statistics, we know that half of the population will survive beyond its life expectancy and half of the population will not. This creates challenging circumstances for people to manage withdrawals from their retirement accounts. In addition, there is the added challenge of managing investments.

This article is not meant to compare the advantages and disadvantages of DC and DB plans; rather, it is meant to promote a new retirement paradigm where both types of plans can coexist and complement one another. This new retirement paradigm will recognize the existing DC plan as the primary retirement vehicle and view the DB plan as a secondary plan sponsored by private sector employers. This paper offers this retirement model as a solution to the longevity risk problem.

Introducing the longevity plan

In order for the DB plan to be viable in its role as a supplementary retirement vehicle, its structure will have to be different from that of the traditional DB plan with which many are already familiar. The DB plan that is being proposed here is essentially a longevity plan. Key features of the proposed longevity plan include:

- Unit accrual pattern such as in a career average plan or a plan based on flat dollar per years of service
- Simplistic retirement options: no ancillary

Examples of Unit Accrual Designs

One example of a viable longevity plan could involve a 2%-of-pay career average pay design. Let's take a look at a cost example of a 2%-of-pay career average plan for a participant hired at age 45 and terminating at age 65. We'll further assume a starting salary of \$60,000 and a 2.5% salary scale. The participant's life annuity benefit commencing at age 75 would be about \$31,000 per year. If the participant's benefit were to be funded over his working career of 20 years, the annual employer cost to fund this benefit would be about 1.8% of pay. By comparison, if the participant's retirement benefit were to commence at age 65 under current IRS rules, the annual employer cost to fund this benefit would be about 2.5% of pay. Thus, by limiting benefit eligibility until age 45 and by not allowing benefits to commence earlier than age 75, the cost of this plan would be relatively low to fund.

Alternatively, if this benefit were to not commence until age 80, the employer's cost would be even lower at about 1.5% of pay. As you can see, the employer's cost would be significantly reduced given the additional years of benefit deferral. The above cost comparisons assume a 6% discount rate and would yield even lower employer costs were a higher discount rate assumption employed. Another example of a viable longevity plan could involve a flat \$1,500 per year of service plan design. The same participant working over a 20-year period would accrue a retirement benefit of \$30,000 per year commencing at age 75.

death, disability, or early retirement benefits would be offered

- Life annuity options only: a single-life option for single participants and 75% joint and survivor option for married participants
- Participants would not begin plan participation before age 45
- Participants would not commence benefits earlier than age 75

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In order for the suggested longevity DB plan to be successful, it has to avoid some of the negative features that have caused many plan sponsors to abandon DB plans in the first place. First and foremost, the plan must be perceived as affordable from the eyes of the plan sponsor. Traditional final-average-pay plans should not be considered given their benefits leveraging features. Only unit accrual type plans should be proposed. The idea here is that you want to have a plan that either bases benefits over a person's career average earnings or over a person's service career. Final-average-pay plans can be manipulated to reflect increased earnings in a person's final years of employment. Furthermore, because past service benefits are leveraged higher upon future pay or service increments, these types of plans end up being very costly compared to the unit accrual plan alternative.

The retirement designs discussed in the examples may appear to offer retirement benefits that are relatively low in comparison to the benefits offered in an average traditional DB plan. However, recall that the purpose of these longevity plans is to offer a supplemental benefit to the existing DC plan. Moreover, this combination of the DC and DB plan is meant to support the average wage earner. Clearly, they would be less valuable to a highly compensated employee. However, a highly compensated employee would be assumed to have another independent source of retirement income from which to draw; the same assumption can not necessarily be made for an average wage earner.

A consequence of traditional DB plans that plan sponsors dread is volatility. Generally, unit accrual types of plans can take on conservative approaches with respect to their investment strategies because they do not have benefits leveraging features or built-in salary inflation. Interest rate risk can be prudently managed by using liability-driven investment strategies. However, as a plan portfolio's fixed income holdings increase relative to equity investments, the plan's expected rate of return can experience a drag. Those plan sponsors that want to stay invested in equities while still reducing market risk can consider tail-risk hedging investment strategies. Coupling a low-cost design with the appropriate investment strategy can help to greatly lessen cost volatility and make plan funding more predictable. It is also important to mention a positive investment aspect of the proposed retirement paradigm for the plan participant. Because retirees are receiving guaranteed employer-funded benefits from the longevity DB plan, they are free to adjust the investment strategy with respect to benefits accruing from the DC plan. This allows participants with a higher risk tolerance to invest more aggressively in their individual savings accounts.



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Another attribute of the proposed longevity plan would be its simplistic design. We've heard many plan sponsors cite a lack of appreciation and understanding among their employees when it comes to DB plans. It is true that many participants do not understand how their DB plans work and therefore show a lack of initial appreciation. Employee education on retirement planning can be helpful to a degree, but ultimately it's the plan's design that will have the most meaning. The proposed longevity plan will not offer any ancillary benefits and will essentially be void of the typical complexities found in traditional DB plans. It will strictly offer life annuities to single participants and a 75% joint and survivor option to married participants. The plan will not offer disability or death benefits and will not offer an opportunity for early retirement. Specific comments on each of these features follow.

Collecting an annuity benefit from the supplementary DB plan would not preclude a retiree receiving a lump-sum benefit from the DC plan. It would just make it easier for the retiree to make decisions on how best to manage his lump-sum benefit from a withdrawal and consumption perspective; the participant would know exactly when his lifetime annuity benefit would start, no earlier than age 75 in the proposed plan. Recall that early retirement would be restricted from the proposed longevity plan because the concern is for the latter years of retirement and the understanding is that other sources of savings should be enough to get you through the initial years of retirement.

Limiting optional forms of benefits to spouses keeps the retirement theme in focus. We all are aware of examples of how benefits meant for retirement are often used for other purposes. Without making judgment of this practice, having a supplementary DB plan offering just annuities will help retirees preserve their retirement benefits.

While the annuity benefit cannot be willed to later generations, the DC benefit can be passed on to future generations. The main purpose of the proposed longevity plan is to provide a lifetime income stream to retirees. From this context, longevity plans should limit benefits only to situations involving retirement. Also, not providing additional benefits upon disability and death will help to keep the employer's cost down.

Barriers to creating a longevity plan

Now that we've reviewed the ideal features of a longevity plan, let us understand what is preventing the proposed longevity plan from coming into existence.

- Minimum eligibility rules
- Normal retirement date definition
- Minimum distribution rules

In order to maintain a tax-qualified DB plan, Internal Revenue Service (IRS) rules require employees covered by a DB plan to be eligible for participation no later than age 21 after completion of one year of service. This rule was more meaningful when DB plans were a prevalent employer-sponsored program. However, there is nothing special about age 21. In the context of sponsoring a longevity plan, you would purposely want to delay participation from the perspective of cost control and recognizing its supplemental nature. Starting benefit accruals at a later age, such as 45, as in the proposed longevity plan, would also cut down on administration and record-keeping costs for employers.

IRS rules also specify the permitted definition of normal retirement age. Essentially, this age cannot be pushed beyond the later of age 65 or the completion of five years of service. Allowing for the deferral of benefit commencement another 10 years

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to age 75 as in the proposed longevity plan creates a huge impact on the employer's cost to fund such a benefit. As mentioned earlier, it would be expected that an average retiree would have enough short-term funds to last during their initial years of retirement. The problem we are trying to solve with a longevity plan is poverty during the later years of life, beyond that of average life expectancy.

A DB plan allows several tax advantages for the sponsoring employer and retirement plan participant. But the tax deferrals can only go so far. Eventually, the federal government wants to recapture some of this lost tax revenue when retired participants commence benefits. Thus, IRS rules require that retirement benefits must be commenced by the April 1 following the later of the year of termination or the year in which a participant attains age 70.5. This essentially means that any participant terminating with a vested benefit at any age before attaining 70.5 is required to commence benefits by the April 1 following age 70.5. If retirees do not commence benefits in accordance with this rule, they are subject to federal excise taxes. This rule would clearly conflict with the proposed longevity plan because we would not want benefits to commence until age 75.

Perhaps one additional consideration needed to establish the longevity plan paradigm involves a reworking of the perception of retirement. There has to be a renewed and genuine appreciation of benefits for retirees from the general public. There has to be an understanding of the risks at stake in exhausting one's retirement funds too early. There has to be both an appreciation and an understanding of the employer's ability and desire to fund benefits for their retired workers so workers can survive in their retired years with dignity. Retirement is too often an ignored topic and one does not fully comprehend its implications until it actually occurs.

Prior attempts at lifetime income security

It is worth noting that there have been some other proposed lifetime income solutions besides the creation of longevity DB plans. However, many of the solutions that have been proposed to deal with longevity risk haven't really fared that well. For example, one might decide to purchase an annuity from an insurance company to combat longevity risk. But this may be a good idea only until one gets to the bargaining table. That's because annuities purchased from insurance companies are generally expensive. Also, a person has to get over the psychological hurdle of laying out cash savings to purchase an annuity knowing in the back of their head that there is a chance that they may not survive long enough to make this a worthwhile investment. It is well known that annuities are most efficiently provided and priced through a DB plan. This notion leads us to consider the proposed Revenue Ruling 2012-4,

which allows for DC transfers into a DB plan for purposes of annuitizing benefits.

The need for lifetime income streams is obviously a serious concern for members of Congress and the administration; however, what sounds good on paper does not necessarily translate to success in practice. One problem with the proposed revenue ruling is that uniform mortality assumptions are required for annuity conversions. This will have the effect of discriminating against males and in favor of females because of the fact that females generally outlive males, which will be ignored by the mandated uniformity assumptions. A second problem with the proposal is anti-selection. Those with health problems will avoid annuity conversion. Given these and other potential issues, one would have to wonder why a DB plan sponsor would want to allow DC rollovers into their plan; it would make the DB annuity more costly and less efficient to provide.

Conclusion

The combined retirement income from Social Security, a DC plan, and a supplementary DB longevity plan can mark the second coming of the three-legged stool concept—a concept that has much wisdom and has been around for ages. Originally, it was the DB retirement plan, Social Security, and personal savings that made up the three-legged stool. With the shift from DB to DC plans—specifically 401(k) plans—the potential for the personal savings leg has greatly dwindled. In fact, many must choose between growing their personal savings and contributing towards their retirement via a DC plan.

This paper has outlined the longevity plan concept and demonstrated its value relative to its cost. If retirees cannot adequately support themselves, they will need to turn to forms of social welfare funded by the federal government. It should be recognized that if some type of longevity plan solution is not made available then social welfare programs will eventually take the place of the "lost" DB plan

(after all, isn't welfare conceptually just a DB plan?). Thus, the question is not whether federal regulations will someday allow for this conceptual idea to become a reality. The need for lifetime income via longevity plans, if not obvious already, will certainly become clear once the majority of Baby Boomers experience their later years of retirement. The question now is really more a matter of when these issues will be addressed.



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