

Decisions, Decisions: Lump Sum or Annuity?

Pensions aren't always monthly checks that arrive in the mail. Sometimes, a departing employee will receive his whole benefit at the time of retirement or separation from service.

By David J. Kupstas

What comes to mind when you hear the word “pension?” Perhaps it’s the monthly check mailed to a retired employee after a long career as a factory worker, schoolteacher, or firefighter. (Okay, it’s 2020, so maybe a monthly direct deposit instead?)

Such a series of regular pension payments is commonly referred to as an “annuity.” An annuity from a pension plan is often paid monthly, but it can be paid at some other interval such as quarterly or annually. The annuity might be paid for a specified number of years, for the lifetime of the payee, or for the joint lifetime of the payee and a beneficiary.

Not all pensions are paid in the form of an annuity. Many plans will allow a participant to elect a single lump sum payment in lieu of future annuity payments. The lump sum in a traditional defined benefit plan is the actuarial present value of the future annuity payments the participant has earned. In a cash balance plan, the lump sum is simply the participant’s hypothetical account balance.

The plans that do not allow lump sums tend to be large traditional DB plans or smaller plans in certain industries. Even when lump sums are offered in these plans, not all retirees choose them. In contrast, small traditional DB plans sponsored by closely held businesses and cash balance plans of all sizes almost always offer lump sums. In the small plans, it is exceedingly rare for anyone not to elect a lump sum.

Normal Retirement Example

Assume Bob participates in a traditional DB plan. Upon retirement at age 65, Bob is entitled to a benefit of \$1,000 per month payable for as long as he lives. This form of benefit is known as a straight life annuity (SLA). Let’s assume Bob’s plan also offers a life annuity with 10 years certain (10 C&C), a 50% joint and survivor annuity (50% J&S), and a 75% joint and survivor annuity (75% J&S).

Under the SLA, no payments will be made to a surviving spouse or beneficiary after Bob dies. Under the 10 C&C, 50% J&S, and 75% J&S, there is a chance Bob’s benefits will continue to a surviving spouse or beneficiary after Bob dies. To account for this possibility, an actuarial reduction will be applied to each of the optional forms of benefit. All the forms of benefit will thereby have the same actuarial value; in theory, a plan should be indifferent as to which form Bob elects. The actuarial reduction may be done using an interest rate and mortality table or a set of tabular factors.

Table 1 shows the benefit amounts assuming the plan's actuarial equivalence factors are 1994 Group Annuity Reserving Table (94 GAR) for mortality and 5.00 percent interest and that Bob has a spouse age 62. Table 2 shows the benefit amounts assuming the plan uses a set of tabular factors for actuarial reductions.

Table 1. Normal Retirement Benefits with 94 GAR and 5.00% Actuarial Equivalence

Form of Benefit	Annuity Purchase Rate	Benefit Amount
SLA	\$141.5291	\$1,000.00
10 C&C	\$147.8442	\$957.29
50% J&S	\$156.9058	\$902.00
75% J&S	\$164.5942	\$859.87

An annuity purchase rate (APR) is the present value of \$1.00 per month payable in that form of benefit. The amount payable under any form is equal to \$1,000.00 divided by the APR for that form times the SLA APR.

Table 2. Normal Retirement Benefits Adjusted Using Tabular Factors

Form of Benefit	Tabular Reduction Factor	Benefit Amount
SLA	1.000	\$1,000.00
10 C&C	0.910	\$910.00
50% J&S	0.868	\$868.00
75% J&S	0.820	\$820.00

The amount payable under any form is equal to \$1,000.00 times the tabular reduction factor for that form.

Of course, if the \$1,000-per-month normal form of benefit were the 10 C&C, the 50% J&S, or the 75% J&S, the SLA that is the actuarial equivalent of the normal form of benefit would be something greater than \$1,000. On average, the payment period for the SLA will be shorter than for the other forms, so the retiree would receive a higher benefit amount to make up for the expected shorter payment period.

Now let's assume Bob's plan offers a lump sum payment along with the optional annuity forms. Using 94 GAR and 5.00 percent interest, the lump sum value of Bob's \$1,000-per-month SLA at age 65 would be \$141,529. So \$141,529 is the amount he would receive if he chose the lump sum, right?

Not so fast. There is a rule in the Section 417(e) regulations that requires lump sum payments to be at least as great as the amount determined using the “applicable mortality table” and “applicable interest rates.” This means at least two lump sum calculations must be done: one using regular plan actuarial equivalence factors, the other using the Section 417(e) factors. The lump sum payable is whichever one is higher.

Bob’s plan is a calendar year plan which bases lump sums on the segment interest rates from the preceding October. On this basis, Bob’s lump sum payable at age 65 in 2020 is \$179,897. Since this amount is higher than the \$141,529 computed using the plan actuarial equivalence factors, Bob’s lump sum amount would be \$179,897.

Cash Balance Plans

Lump sum calculations in cash balance plans are much easier than they are in traditional DB plans. The lump sum is simply the participant’s hypothetical account balance. The whipsaw rules, which often called for a lump sum payout that was higher than the hypothetical account balance, were abolished under PPA.

Annuity amounts in cash balance plans are derived by dividing the hypothetical account balance by the actuarial equivalence factors in the plan document. This is a contrast from traditional DB plans, where the annuity is determined first, then the lump sum is determined as the present value of that annuity.

Early Retirement Example

Most plans offer participants the option of receiving their benefits before normal retirement age—maybe not in all the same forms available at normal retirement, but at least some. There is usually an actuarial reduction for benefits commencing earlier than normal retirement age. Here again, the purpose of the reduction is so the plan does not incur actuarial losses due to the longer expected payment period.

Bob’s plan allows benefits to be paid as early as age 55 to participants with at least 10 years of service. There is no reduction in the payment amount if benefits start at age 62 or later. There is a four percent reduction per year for benefit start dates earlier than 62. Instead of a percentage reduction per year, a plan could have a reduction based on an interest rate and mortality table.

We now introduce you to Bob’s colleague, Maria. Like Bob, Maria will be entitled to an SLA of \$1,000 per month at age 65. Maria is now age 55. (She has at least 10 years of service.) Maria could retire early and elect to start an SLA of \$720 at age 55. This is her \$1,000 age 65 benefit with no early retirement reduction from age 65 to 62 and a four percentage point reduction per year from age 62 to 55 (28 percent in all). Reducing the SLA from age 65 to 55 using any of the interest/mortality actuarial equivalence factors commonly used would have resulted in a

reduction greater than 28 percent. Therefore, it is said that Bob and Maria’s plan pays a “subsidized early retirement benefit.”

Table 3 shows the optional forms of payment available to Maria at age 55 using the 94 GAR and 5.00 percent actuarial equivalence factors. Table 4 shows her age 55 benefits using a set of tabular factors appropriate for age 55. Her spouse is 52 years old.

Table 3. Early Retirement Benefits with 94 GAR and 5.00% Actuarial Equivalence

Form of Benefit	Annuity Purchase Rate	Benefit Amount
SLA	\$174.8887	\$720.00
10 C&C	\$176.8858	\$711.87
50% J&S	\$187.0458	\$673.20
75% J&S	\$193.1243	\$652.01
The amount payable under any form is equal to \$720.00 divided by the APR for that form times the SLA APR.		

Table 4. Early Retirement Benefits Adjusted Using Tabular Factors

Form of Benefit	Tabular Reduction Factor	Benefit Amount
SLA	1.000	\$720.00
10 C&C	0.970	\$698.40
50% J&S	0.908	\$653.76
75% J&S	0.870	\$626.40
The amount payable under any form is equal to \$720.00 times the tabular reduction factor for that form.		

Then there is the question of how much lump sum Maria is entitled to. Per the Section 417(e) regulations, the lump sum cannot be less than the present value of the normal retirement benefit. That would be the greater of (1) and (2) in Table 5, or \$125,587. One might argue that the lump sum could be (3) or (4). These are present values of the subsidized early retirement benefit based on plan actuarial equivalence factors and 417(e) rates, respectively.

Table 5. Lump Sum Amounts Based on Normal Retirement and Early Retirement Benefits

Lump		Age SLA		Lump
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	Sum Description	SLA Amount	Com-mences	APR at Age 55	Sum at Age 55
1	PV of NRB (Plan AE)	\$1,000.00	65	\$86.8866	\$86,887
2	PV of NRB (417(e))	\$1,000.00	65	\$125.5873	\$125,587
3	PV of ERB (Plan AE)	\$720.00	55	\$174.8887	\$125,920
4	PV of ERB (417(e))	\$720.00	55	\$223.8710	\$161,187

PV = Present Value

NRB = Normal Retirement Benefit

ERB = Early Retirement Benefit

AE = Actuarial Equivalence

APR = Annuity Purchase Rate

The Plan AE APR of the NRB is the age 65 APR discounted for 10 years at 5.00 percent interest (no mortality discount).

Which of these lump sum amounts Maria is entitled to will depend on how the plan document is written. She is entitled to at least \$125,587, the present value of the normal retirement SLA, or $\text{Max}\{1,2\}$. If the plan says to consider the early retirement SLA, then Maria would be entitled to \$161,187, or $\text{Max}\{\text{Max}\{1,2\}, \text{Max}\{3,4\}\}$. If the plan is silent about whether to base the lump sum on the early retirement benefit, then likely the interpretation should be to disregard the early retirement benefit in lump sum calculations.

Because of the early retirement subsidy, the lump sum based on the early retirement benefit is going to be much greater than the lump sum based on the normal retirement benefit. Again, a plan does not have to reflect an early retirement subsidy in lump sums. An early retiree may feel this is not fair. However, that's the rule.

It is worth noting that one of the purposes of the relative value disclosure rules was to let participants know the value of a lump sum might be significantly less than the actuarial value of the subsidized early retirement SLA. A lump sum payout dangled in front of an early retiree can be very tempting. A disclosure pointing out the relatively low value of that lump sum may make that option less appealing.

Annuities vs. lump sums on plan termination

When a DB plan terminates, the benefits must generally be settled through either a lump sum payout or the purchase of an annuity contract from an insurer. Throughout this entire century and perhaps earlier, it has typically been cheaper for a plan to settle a given benefit through a lump sum payment rather than an annuity purchase. Among other reasons, this is because of administrative costs, insurer reserve requirements, and the fact that insurers use their own

proprietary mortality rates that have tended to be more conservative than those prescribed by the IRS.

Depending on the age and sex of the participant, the interest rate environment at the time of payout, and other factors, the cost of an annuity for a participant can be between 10 percent and 30 percent higher than the lump sum payout. Your results may vary.

Knowing that lump sums have been the less costly option, some plan sponsors will offer lump sum windows either before or in conjunction with a plan termination, hoping that as many participants as possible will elect the lump sum. While this may be an effective cost-reducing strategy, plan sponsors should know that an insurer might charge more for annuity benefits if lump sums have recently been offered to those participants. The idea is that the less healthy participants will gravitate toward the lump sum option, leaving the healthier participants with longer life expectancies in the annuity contract. Insurers would expect the long-term benefit costs for the healthy group to be higher than average and so would price the contract accordingly.

If lump sums are offered as a new option as part of a plan termination, a decision will have to be made whether the lump sums should be available for a limited time or as a permanent feature. An insurer might charge more for annuity contracts with a lump sum feature vs. one without. This is owing to the uncertainty surrounding future interest rates and future lump sum rules in general, as well as to investment risks present when a deferred annuitant can demand a large sum of money at any time.

A plan may offer lump sums both to those in pay status and those not yet in pay status. In 2015, the IRS issued Notice 2015-49, effectively putting a moratorium on lump sum offers to participants in pay status except in the event of a plan termination. The IRS' reasoning was a retiree lump sum window could violate the required minimum distribution rules of Section 401(a)(9). In 2019, the IRS issued Notice 2019-18 which superseded Notice 2015-49. For the time being, plans have the green light to offer lump sums to retirees in pay status. The IRS and Treasury have said they will continue to study the issue.

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