Long Live Longevity Annuities

How the New QLAC Rules Impact a Retirement Driven Investing Strategy

DC plans can now offer deferred "longevity" annuities that provide income in the later years of retirement. This is good news for those participants who want the peace of mind that they won't outlive their assets while retaining control over most of their portfolio.

This paper is part of our series on retirement driven investing for defined contribution plans, available at *www.nisa.com/rdi*.

While the World Cup had the attention of the mainstream media in early July, the pension industry was focused on the release of the new Qualified Longevity Annuity Contract (QLAC) rules by the US Treasury Department. The Treasury's new rules relax the calculation of required minimum distributions, which now allows DC participants to hold a deferred annuity without running afoul of those distribution requirements. That may sound like a small change, but could prove to have a big impact on how individuals manage their retirement spending.

QLACs are annuities that, instead of beginning to pay out when retirement starts, begin providing income when the participant reaches a more advanced age (e.g., their 70s or 80s). Since they begin payouts later, these deferred annuities have significantly lower premiums and can be paired with other assets that generate income in the earlier retirement years. While there are limits to using QLACs, we think this is a big step forward for DC plan participants and sponsors.

For DC participants investing to fund future retirement spending, it helps to think about risk in two buckets. In the first bucket are market risks like interest rate volatility, unexpected inflation, and stock market uncertainty that can derail the participant from meeting their retirement spending goals. The second bucket contains longevity risk – the risk that the retiree lives longer than planned and runs out of resources in the later years of life. While both risks can leave one unable to cover their retirement spending, the approach for managing these risk buckets can be very different.

Market risks are a product of portfolio allocation decisions. For example, equity investments may be expected to outperform bonds, but inject more uncertainty into retirement income. Meanwhile the duration of fixed income plays a (perhaps surprisingly) big role since the cash flow profile of future retirement income itself has a lot of interest rate sensitivity. Making these asset allocation decisions to control market risks is what we refer to as retirement driven investing, or RDI.[1] However, an RDI strategy cannot directly address longevity risk without incorporating some insurance product with a lifetime income component. This is where the QLAC comes in.

In this paper, we illustrate how QLACs can be integrated into an RDI strategy to design a customizable, flexible retirement income offering. We expect that those retirees who want to retain flexibility and control over their retirement assets, while simultaneously insuring against the "tail risk" of outliving their resources, will find this hybrid approach very appealing.

RDI, meet QLAC

In the broadest sense, we can think of an RDI strategy as the application of a standard asset-liability mindset to retirement income investing. In this framework, future

[1] *See our recent paper,* Refocusing on Retirement Income Risk *available at www.nisa.com*

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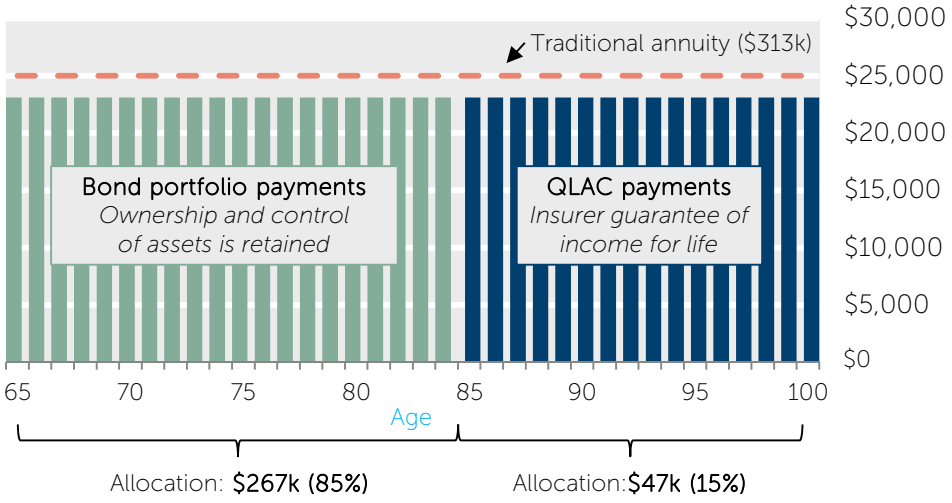
retirement income goals constitute the "liability" with asset allocation and risk management decisions made accordingly.

In our introductory paper on RDI, we illustrated how a bond portfolio's duration can be chosen to stabilize the amount of future retirement income that the portfolio can generate. To demonstrate that point, we characterized the liability as a future annuity purchase. Whether the participant actually intended to buy an annuity was irrelevant, since the annuity simply served as a convenient proxy for a set of cash flows reflecting future retirement spending. We noted that in reality, participants may face an all-or-nothing decision to either buy an annuity or draw retirement income directly from their portfolio (while bearing longevity risk). But prior to retirement the implementation of the RDI strategy was largely unaffected by that decision.

Once longevity annuities enter the picture, however, participants have a third option that has implications both prior to and during retirement. A participant may structure their retirement income by bundling two components: 1) a bond portfolio to fund spending during the first phase of retirement and 2) a longevity annuity to cover spending in the second phase.[2] Exhibit I illustrates this bundled solution for a hypothetical 60-year-old female participant planning to retire in five years, and with roughly $313,000 saved.

Exhibit I

Annual Retirement Income, $ (future value)



Source: NISA calculations based on data from the Society of Actuaries (MP-2014 and RP-2014 tables). Annuity amounts calculated assuming actuarially fair pricing and a 4% discount rate.

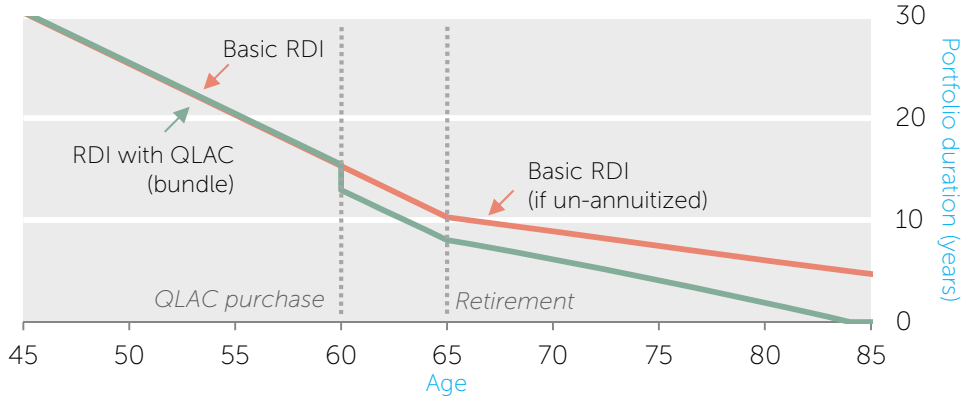
Exhibit I reveals some of the key differences between the bond-QLAC bundle and the purchase of a traditional life annuity.[3] The first is the retention of control and liquidity. Since the QLAC may cost only a fraction of the traditional annuity, the majority of the assets (85% in Exhibit I) remain in the bond portfolio and under the participant's control. This flexibility may be a big factor for a participant wanting liquidity in the event of unforeseen expenses or to make the majority of their wealth available to their heirs in the event of untimely death. However, these benefits come at a potential cost, since the participant will likely receive less income than if the entire income stream is annuitized. With actuarially fair pricing, we calculate $25k of income is possible with a traditional life annuity, while $23k is possible with the bond-QLAC bundle.[4] Participants may find this difference worth it to retain flexibility on the majority of their assets.

[2] *Income from an annuity product like a QLAC depends on the claims-paying ability of the insurer.*
[3] *Annuity calculated assuming the 60-year-old participant waits until age 65 to actually purchase the traditional life annuity.*
[4] *This difference derives from the fact that as less income is annuitized, there is less benefit to the participant from the insurer's ability to pool mortality risks. However, we have ignored insurance fees. Incorporating the effect of fees would likely shrink this difference.*

When it comes to actually implementing an RDI strategy that incorporates a QLAC, another difference is the target portfolio duration. Recall from our previous paper that in the years prior to retirement, calibrating the RDI portfolio's interest rate sensitivity (i.e., duration) is a central feature of the strategy. The bond portfolio's duration is designed to track the duration of the "liability" to reduce the volatility of retirement income as interest rates change. The same approach applies even with the incorporation of the QLAC.

Exhibit II illustrates the duration path of the RDI portfolio under two scenarios. The red line shows a participant who plans to (but doesn't have to) buy an annuity at age 65 to provide all of their retirement income. The green line is the bond-QLAC approach in which a longevity annuity is purchased at age 60 to secure cash flows beginning at age 85.

Exhibit II



Source: NISA calculations based on data from the Society of Actuaries (MP-2014 and RP-2014 tables). Annuity amounts calculated assuming actuarially fair pricing and a 4% discount rate.

Up to the point of the QLAC purchase, the durations are nearly identical since the portfolio is calibrated to very similar liabilities.[5] Once the QLAC enters the picture and those later-year cash flows are secured with the longevity annuity, the bond portfolio is recalibrated to the remaining liability. Those earlier liability cash flows that remain have a shorter duration and the RDI portfolio adjusts accordingly.

After retirement, the pace of duration shortening slows. Now that the participant is actually taking disbursements from the portfolio, the shortest duration cash flows are removed each year. The result is that overall portfolio duration drops less quickly. The same dynamic affects both the QLAC bundle and the basic RDI strategy, should the participant choose not to buy the annuity and "self-insure" longevity risk.[6] And should the participant actually buy the full annuity to cover all retirement spending, the RDI portfolio ceases to exist and the duration question becomes moot.

It's worth clarifying that our hypothetical participant need not wait until age 60 to begin incorporating the QLAC. In fact, the payout level should increase the earlier the participant buys the annuity, since those future payouts are less likely to occur from the insurer's point of view. The participant may therefore prefer to incorporate the QLAC well before she has saved enough to fund her entire retirement income goal. To the extent the participant wants to incorporate the QLAC earlier or choose a different age for the QLAC to begin payouts, the RDI approach can still be applied and the duration path would simply adjust accordingly.

[5] *There is a very modest duration difference arising from the differences in the "liability" cash flows of what is effectively a self-insurance strategy between ages 65 and 85 for the bond-QLAC approach and those of a traditional annuity that benefits from pooled mortality risk during these ages.*

[6] *The dashed line is indicative of the duration path for the un-annuitized RDI portfolio, but a more complicated profile would likely exist as a the individual may reduce consumption contingent on their own survival, thereby implying a longer duration.*

Conclusion

DC participants may feel wedged between a rock and a hard place when it comes to managing retirement income risks. On the one hand, buying a traditional life annuity to cover all retirement spending provides them guaranteed income that can't be outlived. But that requires giving up a lot of control and flexibility that may be important when thinking about heirs and unexpected spending needs. That control and flexibility can be retained by funding retirement spending directly from an asset portfolio, but leaves the participant worrying that they'll live "too long" and run out of money.

Participants now have an escape from this dilemma. By opening the door to longevity annuities within DC plans, the Treasury Department has moved us closer to the goal of stable and flexible retirement income for individual participants. With the new QLAC rule, participants now have the ability to balance their desire for both secure *lifetime* income and control over their retirement assets. Since those competing needs have perhaps contributed to low adoption of traditional annuities, we expect that longevity annuities will be popular.[7]

The real value of the QLAC rule may lie in its synergy with a retirement driven investing (RDI) strategy. A participant's RDI strategy can easily include a longevity annuity, regardless of when the purchase occurs. For the many millions of Americans planning to rely on income from their defined contribution account, this growing array of strategies and tools for managing retirement risks is most certainly news to celebrate.

Institutional investors are invited to contact NISA to discuss customized RDI strategies:

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[7] *We plan to explore some behavioral questions related to deferred annuities in a future paper.*

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