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In an environment where the primary source of retirement income is shifting from defined benefit plans to defined contribution plans, retirees are now faced with a new decision: how much do I withdraw from my defined contribution accounts? Much attention has been paid by employers and regulators to the accumulation phase of a defined contribution plan, but little attention has been paid to the decumulation phase, especially the "how much do I withdraw" part.

Although this may seem obvious, the first step is to encourage retirees to develop a withdrawal plan. This is in contrast to withdrawing money in a capricious manner based solely on immediate spending needs. Retirees may have a feeling of wealth when they see their account balance, but not realize how little it provides when converted to an annual income. A systematic withdrawal plan is preferable to no plan at all since having no plan at all increases the likelihood that the retiree will run out of money.

A withdrawal plan should be developed with attention to the following risks that increase the likelihood of running out of money:

- 1. **Longevity Risk.** There is a 50% probability that a 65-year old man will live to age 85 and a 50% probability that a 65-year old woman will live to age 87. There is a one-third chance that one partner of a 65-year old couple will live to age 95.1
- Investment Risk. Unlike the accumulation phase, there is little recovery room for an investment misstep post-retirement. This is especially true in the first years after retirement when a large market downturn can significantly impact future withdrawals (sequence risk).

- 3. **Inflation Risk.** Rampant inflation, such as during the late 1970s, will quickly erode the purchasing power of retirement assets.
- 4. **Liquidity Risk.** A portion of the plan should be a liquid "rainy day" fund to be used in case of an emergency.
- 5. **Standard of Living Risk.** Resources may be insufficient to provide the desired standard of living.
- 6. **Behavioral Risks.** These include the already mentioned lack of a systematic withdrawal plan, impairment of cognitive ability, temptation to deviate from a withdrawal strategy and consumption risk (spending at a rate that is not sustainable).

Unfortunately, there are no withdrawal plans that address all of these risks. There are advantages and disadvantages to each withdrawal plan and the tradeoffs can be analyzed across four dimensions:

- Is the level of income provided adequate?
- How predictable is the income amount?
- How liquid are the retiree's assets?
- What level of advice or guidance does the retiree want?

There are a limitless number of withdrawal plans available to retirees, but we will focus on those that have gained at least some acceptance and usage and, most importantly, are rules based. These withdrawal plans fall into three categories: investment earnings, systematic withdrawals and annuities.

Investment earnings

Under this method, interest and dividends are withdrawn and form the basis of retirement income. The corpus



of the assets is left intact. A variation of this is to also withdraw the realized capital gains. This strategy can be managed by the retiree or an advisor.

Systematic withdrawals

This is a rules-based approach that is managed either by the retiree or an advisor. These strategies generally fall into three categories. (1) Constant dollar amount. A dollar amount is determined at retirement usually based on a percentage of the retiree's assets that he or she commits to the strategy. A common percentage is 4% (the much touted 4% Rule²). This fixed dollar amount can be adjusted annually for inflation or other rules-based adjustments. (2) Endowment method. Each year a percentage of assets is withdrawn. This percentage does not change over time. (3) Life expectancy method. Annual withdrawals are based on the remaining life expectancy of the retiree (or joint life expectancies of the retiree and partner).

Annuities

Annuities are a series a payments at fixed intervals guaranteed for a fixed number of years or the lifetime of one or more individuals. There are many flavors of annuities available to retirees. There are immediate and deferred annuities. There are annuities that pay a constant amount and annuities that have a variable payment. Some annuities have an inflation adjustment There are annuities with a guaranteed minimum withdrawal benefit (GMWB). This is a hybrid product that has characteristics of both an annuity and a systematic withdrawal plan. There are annuities with a death benefit. Finally, there are Qualified Longevity Annuity Contracts. These allow retirees to move 25% of plan assets (up to \$125,000) into an annuity that commences payments no later than age 85. This amount is not subject to the minimum distribution rules.

A side note regarding annuities, retirees by and large have not embraced them. A study published by the Department of Labor in 2011 (Annuities in the Context of Defined Contribution Plans) indicates that the annuitization rate for DC participants at the time of retirement was 6.1% between 1994 and 2008. There is little indication that acceptance of annuities has changed measurably since 2008. This low acceptance rate is in spite of several studies that indicate retirees with a significant amount of annuitized retirement income are far happier than their non-annuity peers (the primary study being Health and Retirement Survey published by the University of Michigan). Why the low acceptance rate of annuities?

- Adverse selection. Retirees who annuitize tend to live longer than their non-annuity counterparts (sick people do not buy annuities). This has the effect of increasing the price of annuities and discouraging usage.
- Other sources of annuity income. The primary alternative sources of annuity income are Social Security and a legacy defined benefit plan. Indeed, for lower income recipients, where Social Security makes up a large percentage of total retirement income, Social Security may be the only annuity needed.
- **Bequests.** The retiree may want to leave a large bequest and doesn't want the illiquidity of an annuity.
- Fees. There can be many different fees in annuity products: insurance charges, surrender charges, investment management fees and rider charges. For consumers that are used to seeing only an investment management fee in a mutual fund, these various fees can seem egregious.

Which of the three withdrawal strategies should a retiree choose? We can quickly dismiss the investment earnings strategy as it does not address any of the risks.

The systematic withdrawal approaches offer liquidity, flexibility, upside potential in favorable markets and inflation protection. Also, systematic approaches have lower fees than annuities, usually just investment management fees. The two significant downsides are limited protections against both longevity risk and investment risk. Also, behavioral risks are not curbed under systematic withdrawal approaches, although if the systematic program is managed by an advisor, behavioral risks can be minimized.



Annuities offer exceptional protection against longevity risk and investment risk. Variable annuities do provide some upside potential during periods of favorable investment performance. Annuities also eliminate most of the behavioral risks. On the downside, annuities provide no liquidity and are subject to high fees. Most annuities provide no inflation protection, except if the retiree purchases an inflation rider, but these can be expensive. Finally, there is solvency risk, the risk of the insurance company going bankrupt.

Annuities offered inside the DC plan have an inherent bias against men as the annuities must be priced using sex-neutral rates. This favors women over men. Annuities offered outside of the plan can be priced using sex-distinct rates, favoring men over women. This built-in adverse selection makes annuities a tough sell as an in-plan solution, especially when combined with plan sponsor challenges: difficultly changing annuity providers, low utilization, and fiduciary liability in the case of insurer insolvency.

As both annuities and systematic withdrawal approaches offer their own unique advantages, one solution is to combine the two. The retiree divides his or her retirement savings between an annuity and a systematic withdrawal approach. The split depends on the tradeoff between the desired level of protection against longevity risk and investment risk and the desired liquidity and flexibility. Also, Social Security should be factored into this decision as that may be a significant source of annuity income.

If the retiree wants a prepackaged combination, a GMWB annuity may be the answer. It combines both an annuity and a systematic withdrawal approach, with each sleeve offering their respective advantages. One disadvantage to the GMWB is that the higher fees apply to the entire package.

The need for a withdrawal plan is compelling. Unfortunately, most retirees are ill-equipped to make a decision on which path to take. Much time and resources have been expended on the pre-retirement investment and contribution aspects of retirement savings, but little effort has been put into post-retirement withdrawal planning. Plan sponsors and financial intermediaries need to examine their educational focus and expand it to include resources for this important aspect of retirement planning.

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