Challenger Retirement Income Research

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The yin and yang of retirement income philosophies: the short version

Within the world of retirement income planning, there are two schools of thought: probability-based and safety-first, which represent opposing ends of a spectrum of ideas. Understanding the distinctions and thought processes of both schools is important in getting the best outcomes.

Separating accumulation from drawdown: the difficulties of retirement income planning

In defined contribution schemes, members are left to manage longevity, inflation and market risks on their own. There are also differences between the wealth accumulation phase and the income distribution phase (summarised in Table 1).

One important difference is that the investing problem fundamentally changes in retirement. The traditional goal of wealth accumulation is generally to seek the highest returns possible in order to maximise wealth, subject to the investor's risk tolerance. After retiring, however, the fundamental objective is to sustain a living standard while spending down assets over an unknown, but finite, length of time.

Investing during retirement is a rather different matter from investing for retirement, as retirees worry less about maximising risk-adjusted returns and worry more about ensuring that their assets can support their spending goals for the remainder of their lives. The risks associated with seeking return premiums on risky assets loom larger for retirees than before. They might be prepared to sacrifice some upside in order to protect against the downside risks of being unable to meet spending objectives.

In 2014, Wade Pfau, PhD and Jeremy Cooper authored a paper called the 'Yin and Yang of Retirement Income Philosophies'. This paper summarises the key points. Wade has subsequently written two books describing the strategies in more detail: "How Much Can I Spend in Retirement: a guide to investment-based retirement income strategies" and "Safety-First Retirement Planning: an integrated approach for a worry-free retirement".

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Table 1: Retirement income planning – new challenges

- Reduced flexibility to earn income increases the vulnerability of a retiree's standard of living to poor market returns.
- Retirees seek to fund a sustainable level of income from their investments, an important portfolio constraint that is less visible during wealth accumulation.
- Retirees experience heightened vulnerability to sequence of returns risk: poor returns in early retirement mean that the sustainable spending rate from a portfolio can fall well below the average portfolio return over the whole retirement period.
- The length of a person's retirement is unknown and it could be much shorter or much longer than their life expectancy.
- Even low inflation can compound over a long retirement, leaving retirees vulnerable if their portfolio returns do not at least keep pace with inflation.
- Retirees must preserve flexibility and liquidity to manage risks related to unplanned expenses.
- Despite liquidity needs, retirees must also expect to experience cognitive decline at older ages, which could hamper portfolio management skills and other financial decision-making.

Understanding the two schools of thought

Is a 90% chance of success reasonable or is the 10% chance of failure unreasonable?

As a basic introduction to these schools, consider a simple example. Suppose a retirement plan has a 90% chance of success of providing income for a retiree, taking into consideration longevity and market risk. Each school will have dramatically different interpretations about what this number means.

From a probability-based perspective, 90% success is a more than reasonable starting point. It is likely to work. Safety-first advocates, however, will not be comfortable with this level of risk, focusing instead on the 10% chance of failure. They will seek a solution that reduces the impact from any possible failure.

Advocates of the two schools view retirement income planning very differently. They provide opposite answers for basic questions such as:

- Can people effectively prioritise among different financial goals in their retirement?
- What is the best way to approach investing in financial assets for retirement income?
- How should an account-based pension be drawn down?

Funds and advisers who understand both sides of the discussion will be better placed to deliver successful retirement income outcomes. Table 2 summarises the philosophies behind each school of thought.

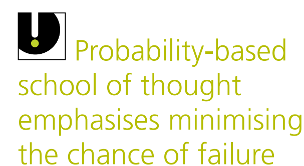
Table 2: Retirement income philosophies

	Probability-based	Safety-first
How are goals prioritised?	Retirees have a particular lifestyle goal in mind and not meeting this overall goal indicates failure. Lifestyle goals are not prioritised between essentials and discretionary.	Goals are prioritised. For instance, the funding hierarchy could be: (1) basic needs, (2) contingency fund, (3) discretionary expenses, (4) legacy goals.
What is the investment approach?	Usually a total returns perspective framed in the same terms as pre-retirement accumulation using techniques such as portfolio diversification. The focus is wealth management for the financial portfolio.	Asset-liability matching. Assets are matched to goals so that risk levels are comparable. Lifetime spending potential over an uncertain horizon is the focus, not maximising wealth. There is a wider role for products to hedge interest rate risk and provide longevity insurance.
What is the role of an account-based pension?	The account-based pension is all that is needed for an outcome that will probably work. They are flexible enough to make whatever adjustments are required.	The account-based pension can be utilised after the safety requirements have been met. It can then deliver aspirational or discretionary spending.

The probability-based school of thought

The probability-based school of thought is familiar to some people under the guise of the 4% rule or the 'safe withdrawal rate'.[1] Retirement income plans using a probability-based approach are closely associated with the traditional concepts of wealth accumulation.

How are goals prioritised?



The idea of using a 'safe withdrawal rate' is that a person does not retire until they have accumulated a sufficient level of assets such that their entire lifestyle goal can be met by spending from their portfolio at the determined safe withdrawal rate.

Probability-based advocates consider that people identify lifestyle spending needs that must be met to fulfil the standard of living they have in mind for their retirement. If they are unable to meet these lifestyle spending goals, they will view their retirement as a failure. Thus, the emphasis is on minimising the probability of failure (or, conversely, maximising the probability of success).

As suggested by the naming of the probability-based school, the objective is to develop a plan that will maximise the probability of success for meeting the overall lifestyle goal. It is assumed that people do not differentiate between essential needs and discretionary expenses, and that people operate on a total budget concept.

1 Despite the use of the word 'safe', this is not the safety-first approach.

What is the investment approach?

Probability-based school of thought is closely aligned with concepts of wealth maximisation

The probability-based approach is based closely on the concepts of maximising risk-adjusted returns from the perspective of the total portfolio. Asset allocation is defined in the same way as during the accumulation phase. Different volatile asset classes, that are not perfectly correlated, are combined to create portfolios with lower volatility that provide the highest 'expected return'. It is an assets-only analysis, and the investor's spending needs are not relevant to determining the appropriate asset allocation.

For retirement planning, spending and asset allocation recommendations are based on mitigating the risk of wealth depletion that is inherent in drawing down a portfolio of volatile assets (i.e. due to sequence of returns and market risk). The failure rate is the probability that wealth is depleted before death, or before the end of a fixed time horizon.

The theory is that retirees take on as much risk as they can tolerate to minimise probability of failure

Probability-based advocates tend to focus on the potential of equities to provide positive real returns and to outperform bonds over the long run. Retirees are thus advised to take on as much risk as they can tolerate to minimise the probability of failure. This has led advocates of the probability-based approach to use more aggressive asset allocations.

The flexibility of the account-based pension makes it the ideal vehicle to implement a probability-based approach for retirement income. Investment choice and flexibility within the account-based pension enable the retiree to adjust their asset allocation and maximise their probability of hitting a target.

Current market conditions highlight the flexibility of a probability-based approach. With low interest rates globally, and lower expected investment returns relative to historical returns, a probability-based approach would reduce the 4% spending rate to something that will sustain the 95% success rate. The cost of the buffer used for protection adjusts to market conditions but it remains uncertain.

The safety-first school of thought

The safety-first school of thought was originally derived from economic models about how people allocate their resources over their lifetime to maximise 'utility'. In the retirement context, this is how to get the most lifetime satisfaction from limited financial resources. It follows the fundamental question of economics of how you optimise in the face of scarcity.

How are goals prioritised?

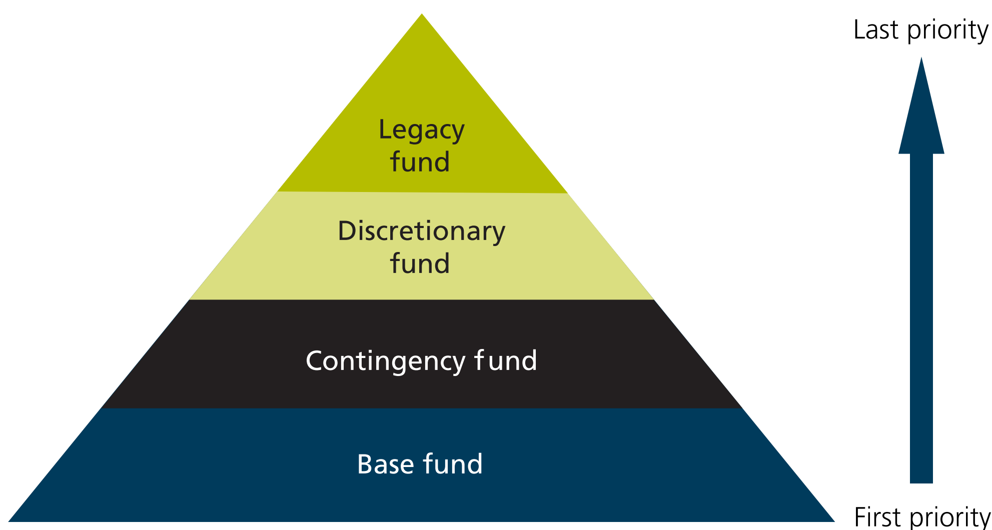
Safety-first school of thought layers income requirements starting with basic spending needs

Advocates of the safety-first approach view prioritising among retirement goals as an essential component of developing a good retirement income strategy. Prioritisation will be very important because the investment strategy is to match the risk characteristics of assets and goals.

Essentially, spending is required to satisfy basic needs, with additional spending on luxury goods after basic needs are met. Retirees should plan to smooth spending over time so as to not overspend on luxuries in one year at the cost of not affording essentials in a later year.

Retirees' spending priorities are formed like the pyramid in Figure 1. Needs are the first priority, then a contingency fund, then funds for discretionary expenses, and lastly a legacy fund. Building a retirement strategy requires working up the pyramid to make sure each goal is properly funded before continuing to the next level. There is no consideration of discretionary expenses or providing a legacy until a secure funding source for essential needs and contingencies is in place.

Figure 1: Modern Retirement Theory hierarchical pyramid



Source: Branning and Grubbs www.modernretirementtheory.com

What is the investment approach?

The general view of safety-first advocates is that there is no such thing as a safe withdrawal rate from a volatile portfolio. Retirees only have one shot at getting sustainable cash flows from their savings. This means they must develop a strategy that will at least meet their needs, no matter the length of life or the sequence of post-retirement returns.

Volatile assets are not appropriate for meeting basic living expenses

Retirees often have little leeway for error, because returning to the labour force is not a realistic option for many retirees. Volatile investments like stocks are not appropriate when seeking to meet basic retirement living expenses. Volatile (and hopefully, but not necessarily, higher returning) assets are suitable for discretionary expenses and legacy, where the spending is more flexible.

The alternative is asset-liability matching, which focuses more holistically at the household level and also emphasises hedging and insurance in risk management. Hedging can be holding individual bonds to spend at maturity and insurance can be a lifetime annuity as a solution for longevity risk.

With asset-liability matching, investors are not trying to maximise their year-to-year returns on a risk-adjusted basis, nor are they trying to beat an arbitrary investing benchmark. The goal is to have cash flows available to meet spending needs as required. Investment assets are matched to goals so that the risk and cash flow characteristics are comparable. This can include defined-benefit pensions, bond ladders and fixed rate annuities.

Account-based pensions typically do not provide safety features. Some safety-minded strategies, such as income buckets, can be constructed within an account-based pension, but these require additional management.

Account-based pensions do not provide safety features

Safety comes first, but once the basic needs are covered, the account-based pension is ideal for the remaining retirement savings. The flexibility of the structure and the ability to vary drawdowns in line with market performance is a good fit for meeting the spending needs for a retiree's additional wants.

Facing low interest rates, as currently being experienced, a safety-first approach will explicitly factor in the cost of the required safety. This will help your client decide on exactly what needs to be protected for their peace of mind and will maximise the remainder, that they can invest for higher returns and benefits throughout retirement.

The retirement income challenge

A cutting-edge retirement income framework must be able to translate client goals, needs, and desires into an appropriate product and asset allocation strategy. The process must delve into: how much retirement spending is feasible; how to best spread spending power over the course of retirement; how to allocate among various products differing in the amount of control and guarantees provided; and how to choose an asset allocation for the portion of wealth to be used with systematic portfolio withdrawals.

Goal segmentation involves creating income for essential versus discretionary spending

The essential difference between the schools of thought relates to the degree of comfort people have that equities will always perform well enough for a broadly diversified portfolio to meet a retiree's basics without relying on more secure assets. With essentials-versus-discretionary, lifetime flooring protection is created for essential needs. This is really 'goal segmentation'. Systematic withdrawals generally leave the entire lifestyle spending goal at risk, since spending needs must be supported from a portfolio of volatile assets.

Retirees face a complex optimisation problem to find the proper balance between many goals over an uncertain lifespan. Table 3 provides a list of questions to help people gauge which school they more closely identify with. Someone inclined to feel more comfortable with the safety-first approach might provide answers such as: (1) a lot; (2) yes; (3) yes; (4) overfunded retirees could lock in their lifestyle and reduce worry; (5) no, the downside risk would be more devastating and not worth the risk; and (6) meeting spending goals is more important than the bequest motive. Naturally, opposite answers would suggest a person is more comfortable with probability-based approaches.

Table 3: Determining comfort with probability-based or safety-first

1. How does stock market volatility affect your sleeping patterns?
2. Are you particularly fearful about outliving your assets or having to reduce spending dramatically at higher ages?
3. Is your standard of living (as distinct from annual spending amounts) vulnerable to a large market decline? In other words, do you have limited flexibility to reduce spending and still remain comfortable?
4. How funded is the retirement plan? Could you meet your goals without market risk, or is seeking upside integral to the success of the plan?
5. Is it worth seeking greater upside potential when it exposes you to downside losses? How would you feel if your assets doubled in value? What if they lost half their value?
6. How do bequest motives compare to spending goals?

In summary

Advisers alike can help retirees overcome the complexities of generating retirement income by first understanding their own philosophical approach to retirement income. While neither a probability-based nor a safety-first approach is definitively right or wrong, different people will align more easily with one or the other. It will be important to be able to articulate which one most accurately reflects an adviser's philosophy or whether a blend is advocated. That way, funds and advisers can be clear about explaining what they are offering and measuring the success or otherwise of the outcomes.

The information in the report has been compiled by the Challenger Retirement Income Research team.

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