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INVESTING DURING RETIREMENT: ADDRESSING SOME MISCONCEPTIONS

An Op-Ed by Dr. Geoff Warren

Investing During Retirement: Addressing Some Misconceptions

Introduction

Various concepts are touted regarding how retirees should be investing during retirement. Five of the more notable are:

1. De-risk
2. Smooth the return path
3. Buy inflation hedges
4. Maintain high liquidity
5. Favour high-yielding investments

Are you nodding your head? If so, you might want to read on. I am going to challenge each concept as either partially correct or misguided. I argue that none should be received as dogma to follow without further thought about whether the stated principle is appropriate in the circumstances.

Concept 1: De-Risk

This concept is founded in two notions. First is that retirees have lower risk appetite. This is supported by evidence that the typical retiree has lower risk aversion. The second is that retirees have lower capacity to take on investment risk, as they no longer have access to wage income and would be quite exposed if their retirement savings 'nest egg' falls too much in value.

My issue is with the second notion, which adopts a far too narrow perspective and thus misses some key considerations, three of which could support the conclusion that a particular retiree would be better off holding a higher risk portfolio offering a higher expected return.

The Author

Dr. Geoff Warren is a member of the Asia-Pacific Advisory Board of The Brandes Center.

He is a Research Fellow with the Conexus Institute, a think tank focusing on the Australian superannuation industry, and an Honorary Associate Professor at the Australian National University.

Geoff has written extensively on providing for retirement. This opinion piece is based around research conducted at the Conexus Institute, including the 'Investing for retirement' report and the 'Investments in the retirement phase' explainer, recasting the concepts for a broader audience.

(a) There is a trade-off involved – Retirees should care more about the use they can get out their assets than the running value of the assets. A key aim should be to maximise the income that is drawn and ensure it lasts throughout a retirement that could span decades. From this perspective, de-risking may be counterproductive. Investing in assets that offer higher expected returns but higher risk can support drawing income at a higher rate or drawing a given level of income for longer, provided that higher returns are indeed realised.

However, if returns turn out to be poor for an extended period, the result will be lower or less sustainable income. And there are no guarantees, especially when markets are highly valued and the backdrop is somewhat tumultuous.

In contrast, investing in defensive assets that offer lower expected returns ultimately means lower expected income, although that income will be more certain. In effect, in choosing an investment mix retirees face a trade-off around the expected level and certainty of income.

For many retirees, investing in a higher rather than lower risk/return portfolio might be a trade-off worth taking given the balance of probabilities. The idea that investing in higher-risk assets offering higher expected returns is quite likely to generate better outcomes over long periods is supported by many researchers. For instance, see the "Beyond the Status Quo: 100% Equity Allocation for Retirement" presentation for The Brandes Center in 2023, which is found here on YouTube.

With regard to income during retirement, simulation analysis typically finds that the probability is quite small of an all-equity portfolio delivering lower income than an all-fixed income portfolio over the course of retirement.

While the exact probability of the equity portfolio doing worse will depend on assumptions, it is not uncommon to find that higher income is delivered across more than 90 percent of the distribution of possible outcomes.

I ran some analysis to illustrate this point, which is summarised in the Appendix. Only those who cannot countenance either being in the lower tail of the income distribution delivered by equities or have difficulty living with a volatile portfolio value might prefer to do otherwise.

A key aim should be to maximise the income that is drawn and ensure it lasts throughout a retirement that could span decades. From this perspective, de-risking may be counterproductive.

(b) Other sources of income may exist – Some retirees might have access to other reliable sources of income, such as social security or income from a defined benefit fund. These income streams are effectively a form of defensive asset. Retirees might hence be well-able to take on risk within their investment portfolio to boost overall income where these sources of income are significant in magnitude.

(c) Objectives matter – The discussion so far assumes that maximising income over retirement is the main objective. Retirees could have other objectives that may influence how they should invest.

For example, retirees with a strong desire to leave a substantial bequest may prefer to invest in higher returning assets to maximize the expected inheritance. Alternatively, retirees who want to be able to access their assets over a short time horizon, such as to fund an impending large expenditure or simply wanting to use their assets on an as-needed basis, might be justified in investing more defensively to ensure that the assets are reliably available.

In summary, it is far from a foregone conclusion that retirees should de-risk. Maintaining a healthy exposure to higher-returning but riskier assets like equities can boost expected income and may be particularly appropriate for retirees with access to other reliable sources of income or a strong bequest motive. Perhaps 'think twice before de-risking' might be a better concept to embrace.

Concept 2: Smooth the Return Path

For retirement portfolios in drawdown, it is not just the level of returns that matters but also their timing. Poor returns experienced earlier in retirement while drawdowns are being taken will have the effect of reducing the assets available to support income going forward, leading to lower income over the remainder of retirement. This is known as sequencing risk, which might be seen as an interaction effect where the impact of return fluctuations is compounded by drawdowns. Sequencing risk is heightened under fixed drawdowns, as taking a given dollar amount from a portfolio that has fallen in value accelerates the decline in assets and leads to them running out sooner.

While setting out to smooth the return path is a laudable goal, again a broader perspective is required. Reducing investment risk can be difficult to do without sacrificing expected returns: free lunches are rare in markets. And reducing expected return to achieve a smoother path will reduce expected income. Thus we return to the risk-return trade-off discussed under 1(a) above.

In this regard, the analysis summarised in the Appendix embeds the impact on income of sequence of return effects and how they may interact with return fluctuations.

While setting out to smooth the return path is a laudable goal, again a broader perspective is required.

What could be done to manage sequencing risk? The risk might be reduced without cost by diversifying in a way that reduces portfolio volatility without lowering expected return. However, the benefit is unlikely to be large.

Sequencing risk might be mitigated in part through adopting percentage drawdowns (such as applying the US required minimum distributions) rather than drawing a fixed amount (such as under the 4% rule), but this will result in variable income year-to-year.

Other more sophisticated strategies exist that are harder to implement. Option collars that limit the downside but cap the upside can smooth the path but could also lower expected return and give rise to additional cost and implementation load. Dynamic investment strategies that, for example, hedge only when downside risk is high can conceptually help avoid major drawdowns but require high levels of skill.

The upshot is that a retiree might reasonably decide to live with sequencing risk than attempt to mitigate it, especially if doing so requires accepting a meaningful reduction in expected returns.

Concept 3: Buy Inflation Hedges

A common notion is that retirees are very exposed to inflation because it boosts the cost of living and may reduce the spending power of income drawn from their assets. The obvious response would seem to invest in assets that hedge inflation. If the value of the assets go up in line with inflation, the capacity of those assets to support spending going forward remains intact. I have no problem with this line of argument.

Where I *do* have an issue is how investing to address inflation is commonly framed.

If you ask people about inflation hedges, they typically refer to two types of assets. First is assets with inflation-linked cash flows (or earnings) such as property, infrastructure and inflation-protected bonds, such as Treasury inflation-protected securities or TIPS. Second is commodities including gold (and perhaps crypto). The relation between all these assets and inflation is far more nuanced than often portrayed, with some good reasons to question their inflation-hedging credentials.

First, assets with inflation-linked cash flows or earnings do not reliably deliver inflation-hedged returns. In addition to the expected cash flows, the value of any asset depends on the discount rate (or valuation multiple) applied to those cash flows. The problem is that higher inflation can lead to higher discount rates, perhaps associated with the central bank hiking interest rates.

Many assets with inflation-linked cash flows are also sensitive to discount rates through either the way they are valued or the use of leverage (especially in property). It is entirely possible that an inflation episode could see the value of some purported inflation hedges head south.

Inflation-protected bonds are a particular case in point, turning out to be an especially poorly-performing asset class during the post-COVID inflation episode of 2021-2022 due to sharp rises in (real) yields as central banks tightened policy and the interest rate structure adjusted upwards. The increase in income paid due to higher inflation was insignificant by comparison.

The problem with commodities is that their correlation with inflation is far from guaranteed because prices are determined by a wide range of factors. Many commodities are driven by supply/demand conditions rather than inflation expectations, with industrial commodities being sensitive to economic growth through the impact on demand. To some degree, commodities might be better seen as contributing to inflation, rather than responding to it.

Notable drivers for gold include real rates, concern over debasement of fiat currencies and response to crises. It is hardly surprising that empirical analysis finds an unreliable and at best weak relation between commodities and inflation.

There is also the issue of whether investing in inflation hedges comes with lower expected returns and hence retirement income. This will depend on how inflation hedges are priced, and whether access to inflation hedging characteristics comes at the cost of lower returns. Expect no free lunches.

Exposure to inflation risk also depends on the inflation expectations. Whether inflation exceeds what is priced into the market may determine whether losses are incurred. And as expectations and market pricing can vary over time, so too can the need for inflation hedging. At present, the breakeven inflation rate based on comparing US nominal T-bond and TIPS yields is around 2%-2.5%. (I'll leave it to readers to reflect on what this means for where expectations sit and the balance of risks.)

Rather than searching for inflation hedges, retirees may be better served looking in another direction by aiming to limit exposure to assets that are highly inflation-exposed. Top of the list of candidates might be nominal long-duration bonds.

Nominal long bonds are doubly exposed because inflation can erode the spending supported by their nominal cash flows coupled with the possibility that higher inflation could bring a rise in bond yields. Perversely, cash might be a better inflation hedge as at least the rate of return can quickly reset to higher inflation…although this depends on central banks responding accordingly.

All this leads to the conclusion that inflation is a significant risk for retirees that is hard to hedge. Perhaps the better approach is to ensure that exposure to inflation is managed and kept low, rather than seeking out the often-touted inflation hedges when they cannot be relied upon to deliver when needed.

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Concept 4: Maintain High Liquidity

The concept that retirees require liquidity stems from the idea that they need to be able to readily sell their investments to fund drawdowns. While there is an element of truth in this, the need for liquidity can tend to be overstated. A better approach is to identify how much liquidity is actually needed than apply a blanket rule. The answer will depend on the situation, including the intended purpose for the assets.

Retirees who are drawing down on their assets to generate income may need only a modest portion in liquid investments. For instance, if (say) 5% of the assets are to be drawn as income on average over the next 5 years, then holding 30%-40% in liquid assets may suffice.

A further consideration is when the existing assets are expected to release cash through either income payments or capital return upon expiry (e.g. credit). In practice, most retiree portfolios will have considerable holding in equities and ETFs that can be readily sold, coupled with modest holdings in illiquid assets, such that the liquidity question becomes almost irrelevant.

It is also questionable whether generous cash weightings are required to cover income over the next 'x years' in the presence of investments that can be readily sold to support income payments.

The need for liquidity becomes more pressing where the assets are either required soon or there is considerable uncertainty over when they will be required.

Cases in point include where the assets are earmarked for some impending large expenditure or are acting as a precautionary savings that could be needed at short notice. Older retirees might be justified in holding more liquid investments because they face higher likelihood of large expenditures related to health or aged care, or because illiquid investments could create hassles for their beneficiaries when they pass away.

In short, a blanket rule that retirement portfolios should be highly liquid is tenuous. How much liquidity is actually needed is a better focal point.

Concept 5: Favour High-Yielding Investments

The final concept involves the idea of retirees investing in assets that pay high income yields with the intent of funding spending from investment income while leaving the assets intact. This has been called 'dividend investing' in an equity context, although the concept extends to other high-yielding assets such as private credit. I consider this to be a largely inappropriate way to frame investing for retirement, although it may be helpful in some ways.

I have **three main problems** with income investing in retirement:

(a) Income investing will result in a failure to convert assets into the income stream that is affordable, as assets are not being run down. In fact, it can lead to assets growing in value and large unintended bequests. It is a strategy for becoming 'the richest person in the graveyard'.

(b) Making a distinction between investment income and capital gains is somewhat illusionary. Retirement outcomes are amplified by maximising total returns and thus wealth generation, rather than solely focusing on the income component.

(c) The approach can generate increasing income over retirement to the extent that income grows, e.g. higher dividends. This is at odds with observed retiree behaviour, where research shows that spending typically declines over the course of retirement (notwithstanding higher health expenditure at older ages). A flat or declining income profile seems more suitable.

I can also think of **three advantages** of income investing, to recognise the other side of the argument:

(a) Focusing on the income that assets can deliver rather than their price encourages taking a long-term perspective and can help dull the temptation to overreact to market volatility. However, this framing also carries risk. A 'never sell' mentality can be dangerous as some investments are 'dogs' and should be sold. High yields can also be a sign of high risk, e.g. dividend traps.

(b) Income investing may have tax benefits. Examples include where significant capital gain tax would be incurred upon sale or where dividends come along with tax credits (as they do in Australia).

(c) Income investing might be suitable for retirees looking to accumulate assets, such as those with strong bequest motives. For most retirees, the benefits of converting assets into an income stream that is affordable and purposefully designed is likely to outweigh these advantages. Optimal conversion of assets into income requires drawing down on capital rather than adopting the mentality of living off the income.

Final Thoughts

Perceptions of how retirees should invest are often reduced to basic concepts and simple rules that may be received as universal truths. The situation is much more nuanced. My reframing of five popular concepts is as follows:

1. Retirees should think twice before de-risking. Many retirees may be better off investing in higher returning but riskier assets that support higher expected income, although this will depend on their objectives and circumstances.

2. Smoothing the return path is desirable but should only be pursued if the cost to expected returns is acceptable.

3. Reliable inflation hedges are difficult to find. It may be better to focus on limiting exposure to investments that may do poorly when inflation surges such as nominal long-duration bonds.

4. Retirees should decide how much liquidity they actually need and invest accordingly. The need for liquidity could be quite modest where the prime focus is generating income over the long run.

5. Favouring high-yielding investments with the intent of living off the income is not worth pursuing.

Appendix: Investment Choice and the Distribution of Retirement Income

I undertake analysis to illustrate how investment decisions around risk and return can impact potential income over the course of retirement. The modelling entails simulating and comparing the percentile distribution of retirement income from two notional portfolios under two different drawdown strategies, based around $100,000 of available assets upon retirement at age 65.

A high return/high risk portfolio offers a compound real expected return of 5% with volatility of 16%, similar to what might be expected for equities. A low return/low risk portfolio offers a real return of 1% with volatility of 4%, and may be taken as representing fixed income.

The first drawdown strategy applies the '4% rule', under which a fixed, real income of $4,000 is drawn until the assets are exhausted. The second drawdown strategy applies withdrawal rates in line with the US 'required minimum distributions' (RMD) from age 72, with withdrawal rates between ages 65-71 estimated using the same approach.

More details on the assumptions appear at the end of this section.

Income under the 4% rule

The 4% rule amounts to an income target of $4,000 per annum, under which the measure of success is whether that income can be sustained throughout retirement, i.e. until death. Exhibit 1 on the next page shows that the $4,000 is expected to be sustained until at least age 109 through investing in high return/high risk portfolio, with reference to median income.

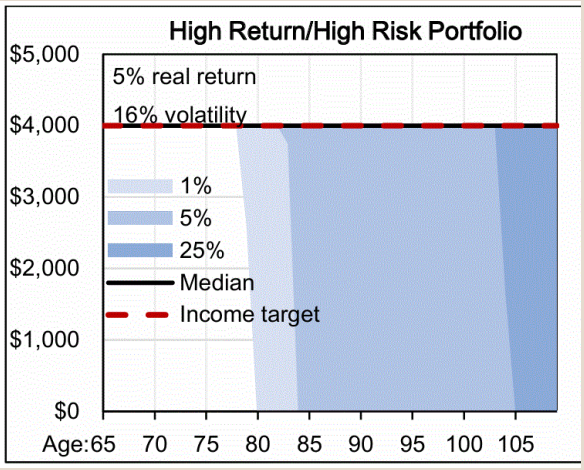
Analysis of the income distribution reveals that the probability of the income running out by age 80 is about 1%, age 84 about 5% and age 105 about 25%. In other words, there is a 75% probability that $4,000 in income can be sustained until age 105.

In contrast, Exhibit 2 on the next page suggests that investing in the low return/low risk portfolio means that $4,000 of income is only expected to last until age 94 based on the median, with a probability of running out of 75% by age 97, 95% by age 102 and 99% by age 106.

The 1% probability of running out for the low return/low risk portfolio at age 82 is a bit better than age 80 for the high return/high risk portfolio, although the 5% probability is worse at age 84 versus age 88. Overall, the high return/high risk portfolio seems superior given that it is likely to sustain $4,000 in income for longer with quite a modest chance of income running out earlier as a consequence of return volatility.

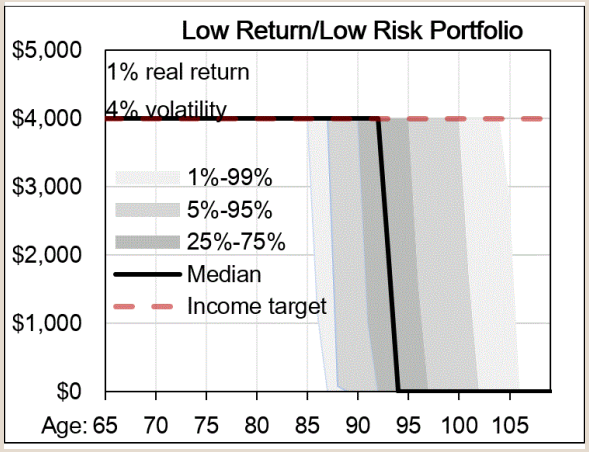
Income per $100,000 Invested Under 4% Rule

Exhibit 1 | High Return/High Risk Portfolio



Source: Author's Calculations

Exhibit 2 | Low Return/Low Risk Portfolio



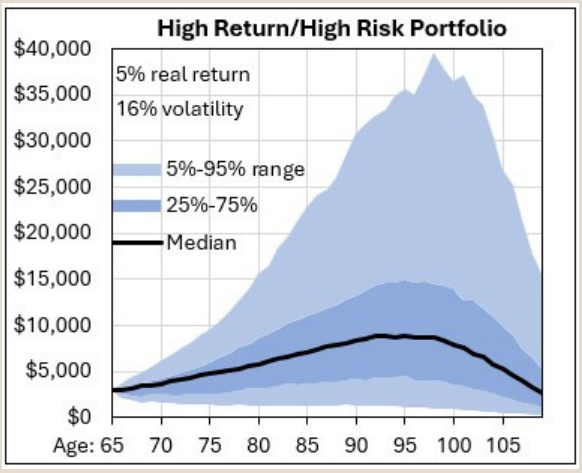
Source: Author's Calculations

Income Under RMD Drawdowns

Exhibits 3 and 4 below illustrate how the high return/high risk portfolio supports considerably greater, albeit much more variable, income than the low return/low risk portfolio under RMD drawdowns. Not obvious from this chart is that the 5th percentile income for the high return/high risk portfolio is higher than for the low return/low risk portfolio, although the 1st percentile income is lower. Again one sees a pattern whereby the high return/high risk portfolios is quite likely to deliver the better income outcome, perhaps significantly better, with the risk of doing worse being quite modest. One consideration that is obscured by such percentile charts is that income is much more variable over time within each simulated path for the high return/high risk portfolio, reflecting greater fluctuations in investment returns.

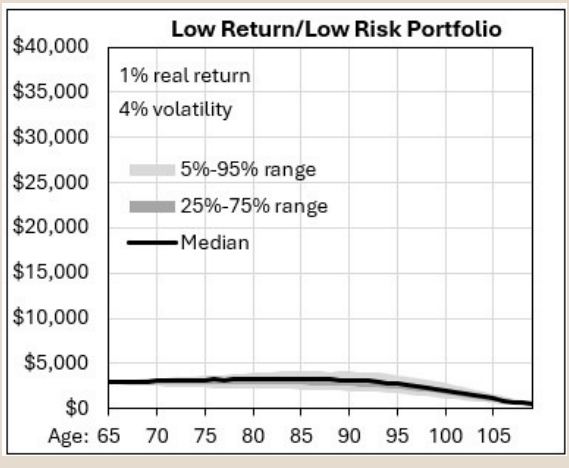
Income per $100,000 Invested Under Required Minimum Distributions

Exhibit 3 | High Return/High Risk Portfolio



Source: Author's Calculations

Exhibit 4 | Low Return/Low Risk Portfolio



Source: Author's Calculations

What All This Means

The trade-off faced by retirees when choosing between taking on investment risk versus de-risking partly depends on whether the objective relates to drawing a certain amount of income or taking income as a given percentage of available assets. Under fixed drawdowns, the issue is which choice is likely to see the assets and hence income last longer. Here, investing in assets offering higher expected returns while taking on investment risk is likely to lead to the income being sustained for longer, with a modest chance it could run out earlier.

When income is drawn as a given percentage of available assets, the trade-off revolves around the level and variability of income, noting that income will then fluctuate with investment returns but never totally run out. Taking on investment risk can be expected to result in much higher but more variable income over time. There is also a chance of a poorer outcome if returns turn out to be particularly poor.

Given that the modest probability of income turning out worse through investing in a higher return/higher risk portfolio rather than de-risking, most retirees can expect to be much better off accepting higher investment risk. Nevertheless, how these trade-offs are viewed may depend on the retiree, in particular the ability to countenance volatility in retirement savings and income.

More Detail on the Analysis

The analysis summarised here draws on models that were developed to accompany a Primer on Retirement Income Strategy Design and Evaluation that colleagues and I wrote for the US Society of Actuaries in 2023. The material can be accessed here, noting that some adjustments were made to the models for the purpose of the analysis.

A few aspects of the modelling are worth expanding on. All modelling is undertaken in real terms with investment returns assumed to follow a lognormal distribution. One thousand simulated paths are generated for yearly investment returns, the retirement savings balance and income, under the assumption that income is drawn at the beginning and investment income is earned over the course of each year. By construction, the modelling embeds sequence-of-return effects and their impact on income over time.

Taking on investment risk can be expected to result in much higher but more variable income over time. There is also a chance of a poorer outcome if returns turn out to be particularly poor.

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THE BRANDES CENTER
9500 Gilman Dr. #0553
La Jolla CA 92093

CONNECT WITH US
rady.ucsd.edu/brandes
brandes@rady.ucsd.edu

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