Thought leaders in decumulation

Article 2.

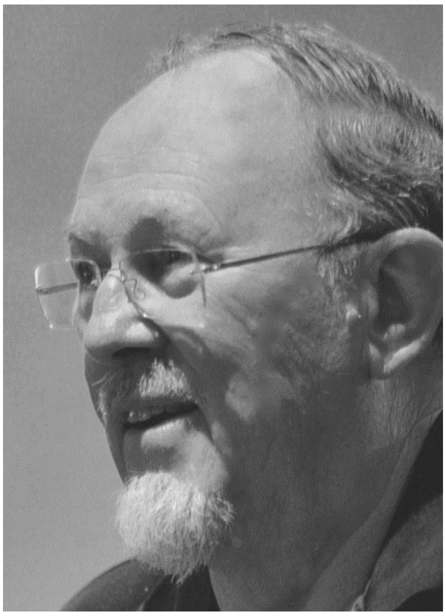
Decumulation, the "nastiest, hardest problem in finance"

09th November 2020

www.alphabetapartners.co.uk

Alpha Beta Partners

Decumulation, the “nastiest, hardest problem in finance”



“How much can I withdraw from my pension portfolio, to avoid the risk of running out?”
Nobel Prize winner William Sharpe called this the single “nastiest, hardest problem in finance”.
Sharpe knows his onions – he is the 84-year-old retired professor of finance from Stanford University, Nobel Prize winner and has the *Sharpe Ratio* named after him.

New science

Not knowing future investment returns and the order in which they come, otherwise known as sequence risk, is the first part of Bill Sharpe’s problem.

However, since he considered the withdrawal question, a way of calculating the danger of sequence risk from any given asset allocation or portfolio has been developed.

With this new bit of science, withdrawal amounts can be accurately calculated simply by dividing the expected total return of a particular asset allocation by this new sequence risk term.

The greater the value of this sequence risk term, then the lower the amount that can safely be withdrawn each year.

The second part of the problem is not knowing how long you will live, otherwise known as longevity risk.

This can be solved by establishing a planning horizon, for example 20 years, taking a retiree from age 65 to age 85. At the end of the planning horizon, the retiree may then covert a pre-determined **residual** amount left in a pension pot into a delayed annuity, providing income for the rest of life, no matter how long that may be.

All that remains for the retiree is to consider the degree to which they can accept the risk of having to take a lower amount of annual income in future years, to keep all on track.

Some may not be able to accept less in the future while others may be less concerned and opt to withdraw at rate associated with say a 50% risk, knowing that half the time they will be able to withdraw more in future years and half the time they are able to accept a future reduction, which will probably be not by very much.

Selecting an investment strategy for decumulation

Key to a successful retirement is to select the right investment portfolio.

Table 1 shows the variation in sustainable withdrawal amounts attributable to various popular investment options.

As would be expected, the higher the equity allocation the greater the likelihood of suffering sequence risk leading to a higher sequence risk term and so the sustainable withdrawal amount is lower.

The difference between the highest and lowest sustainable withdrawal amount is as much as £20,000 in this example depending on the investment strategy selected, a very considerable difference.

Table 1: Risk of having to accept lower income in future years: 5%

Portfolio	Annual income
Alpha Beta Lifetime portfolio1	£ 56,636
20% equity allocation	£ 54,139
IA 0-35% shares	£ 53,591
RPI+2%	£ 50,178
Risk 3	£ 46,121
Smoothed 3	£ 45,913
IA 20-60% shares	£ 45,591
Risk 4	£ 43,085
Risk 5	£ 42,046
60% equity allocation	£ 40,680
IA 40-85% shares	£ 40,598
IA Flexible	£ 36,484

Assumptions:

Starting pension pot: £1,000,000
Planning horizon: 20 Years
Inflation 2%,
Charges 0.4%
Ending balance: £0

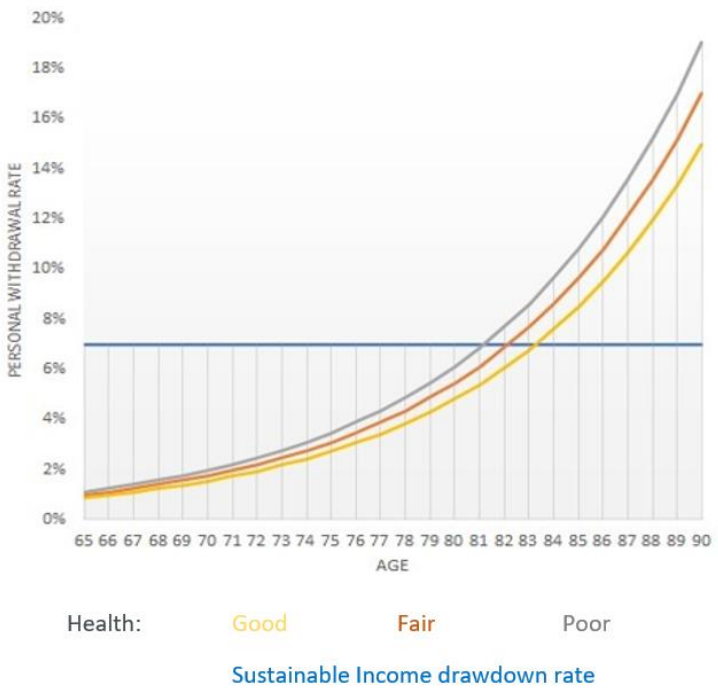
[1] This ABP portfolio includes a systematic strategy which switches between equity exposure and cash depending on market trends and is specifically designed to reduce sequence risk. It was developed in partnership with leading academics at Cass Business School and retirement income specialist, Whole Money Ltd.

Number of years of the planning horizon

The length of the planning horizon will depend on personal circumstances and can be changed at any time as circumstances change, but it is required to calculate the annual withdrawal amount.

As annuity rates rise in later life and personal ambition to remain in income drawdown may lessen, it will make sense for many to convert their pension pot balance into a delayed - and possibly enhanced - annuity.

Graph 1 illustrates how and when annuity income outpaces drawdown income in later life. This form of analysis can be used to determine the length of the planning horizon and to support the decision as to when to buy an annuity.



Pulling it all together

There is no longer any need to approach income drawdown planning with 'rules of thumb' and guestimates.

The entire process has now been made scientific, from comparing and selecting investment portfolio types, calculating annual withdrawal rates and solving for longevity risk.

All is forthcoming via the new AB Pension Pathway app.

Please contact Andrew Thompson for a demo and a discussion.

E: at@alphabetapartners.co.uk T: 07968 934127

Important Information:

Alpha Beta Partners Ltd.
4 Lombard Street, London EC3V 9AA
info@alphabetapartners.co.uk 020 8059 0250

www.alphabetapartners.co.uk