



BpH Insight

Achieving successful retirement – enjoying a sustainable income

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Sustainable Income Without Regret

When taking regular drawings from your investment portfolio (be that a drawdown pension or any other kind of portfolio involving stocks and shares) it is important to be aware of the risks involved and to consider the steps you can take to mitigate them.

This paper focusses on the one of the biggest risks you might face in retirement – running out of money. In other words, we seek to throw some light on the very difficult question “How much can I safely draw from my investments each year for the rest of my life?”

By approaching the question in this way, we aim to tackle the often unspoken concern our clients have of running out of money. We also look at the problem that can stem from being overly conservative – not taking *enough* income and, as a result, having too much money in your portfolio in the later years, perhaps when you are physically less able to enjoy it.

We can never be certain of the answer to the question, as there are many variable and often unknown factors to consider. We do know that there are ways of mitigating the risk of running out of money and, equally, mitigating the risk of dying with too much money in the pot having not fulfilled your lifestyle objectives for fear of running out of money.

The problem...

Drawdown strategies have historically been founded on “linear” growth rates – in other words, an assumption is made about how your investments will grow each year. That growth assumption will be based on average returns from the portfolio and the retirement modelling done in this way will assume that the said return (for example 6% per annum) will be achieved each year.

In reality, we know that investment markets are volatile and investment returns are not linear. The pattern of returns is random and unpredictable.

Portfolio performance can fluctuate significantly. For example, a portfolio with an average growth rate of 6% per annum might experience years of double-digit growth. It will inevitably also experience years of significant reductions in value.

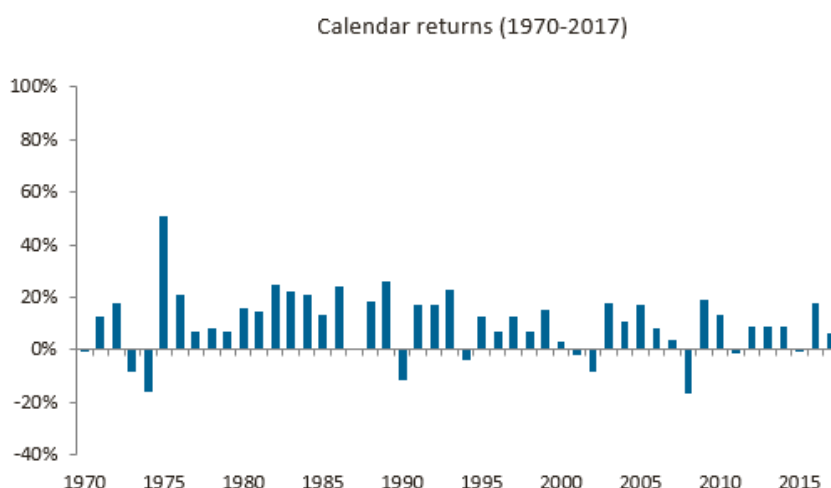


fig 1. BpH Moderate 60 Portfolio calendar year performance

The random pattern of investment returns can have a significant impact on the longevity of your fund and the amount of income that you can 'safely' draw from it. This is particularly true in cases where investment performance is poor in the early years while income withdrawals are being taken.

The linear method of forecasting cannot account for the random pattern of returns, so we look to new methods of forecasting which do take into account the effect of randomness of returns.

So if the problem is potentially running out of money as a result of investment performance and unsustainable drawings, what can be done about this and what steps can be taken to identify the 'safe' withdrawal rate?

The damage is done when drawings are taken from the portfolio in a falling market. This can be compounded by a period of high inflation and the consequent rise in income. In such circumstances the portfolio value may not fully recover even if the underlying investments recover (as there will be less money left in the pot to benefit from the recovery because of what has been drawn out).

The solution 1...

One method of tackling this problem is to be prepared to suspend or reduce income withdrawals when investment values begin to struggle. This has been our default option for a long time.

That way, your portfolio can be allowed the time to recover when markets recover, without the burden of withdrawals being placed upon it.

Of course, this option is not available to everyone. It relies on either reducing expenditure or having other (cash) savings to dip in to, or to rely solely on other sources of income (such as the State Pension or annuities) for a period.

Even for those who have other low/no-risk pots from which they can draw money this solution is not always palatable. Nor does the solution shed much light on the question of how much can safely be drawn from the pot.

The solution 2...

We have the ability to examine how long your portfolio could last given the desired rate of withdrawal and how your chances of success could be improved if you are willing to implement a simple set of rules as to how the rate of withdrawal should be varied when investment values change in a certain way.

This more sophisticated solution will look at the kind of rates of withdrawal that could be taken from the outset (with and without the application of these rules), to help us understand how much you can spend without compromising your future security and the real value of the income you can withdraw.

When considering all of this, we express your chances of success as a percentage, rather than by stating outright whether the withdrawal strategy will work or not.

Success is defined as having at least £1 in your pot at the desired future age (we usually use age 100) – in other words success = not running out of money. We can adjust our measure of success, for example by considering your chances of having a higher fund value at the desired future age – for instance if one of your objectives was to leave a legacy from your liquid assets.

By taking into account the varying pattern of returns achieved by the portfolio historically (as well as historic inflation) we can illustrate what level of withdrawal could have safely been taken in the past without you having run out of money (and how this “sustainable” rate changed every year depending on when the drawings commenced).

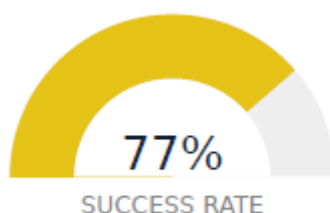
We can also get an understanding of the potential future value of your pot and the range of likely values in the future based on the random pattern of returns.

In the below example, our client has a portfolio valued at £500,000. She is 65 years of age and she wants to take £20,000 per annum (before tax). She wants her income to increase in line with inflation. Her portfolio is invested with a moderate/balanced level of risk.

On the face of it, the client is only drawing 4% of the current fund value and if her fund achieved an average return of 6% per annum, even after inflationary increases on the drawings, she would have plenty of money in the pot to see her through to age 100.

However, when we start to take into account the real historic performance of the portfolio (and real historic inflation over time), we find the picture is not quite as clear.

The client has a 77% success rate.



As a result of the variable pattern of investment returns, there is a chance the client will run out of money during her lifetime.

The range of potential portfolio values over the years for this client is shown below

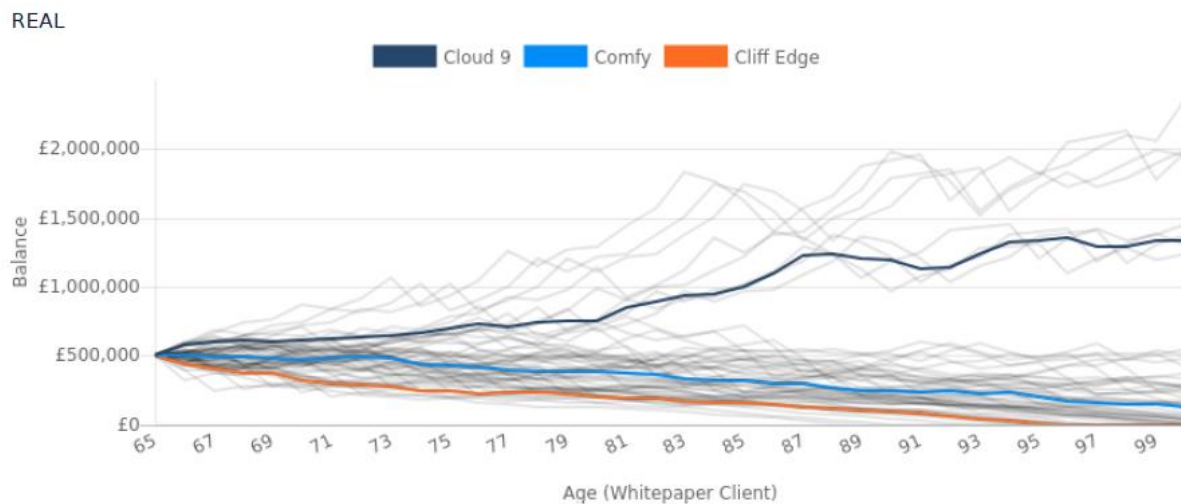


fig 2. Future potential portfolio values in real terms (i.e. after inflation)

Here, the light blue “comfy” line shows the median average historic outcome. Half of all outcomes were better than this and half were worse.

The dark blue “cloud 9” line shows the top 10% of historic outcomes.

The orange “cliff edge” line shows the bottom 10% of outcomes. 9 out of 10 historic outcomes were better than this one.

The variability of outcomes is significant, hence expressing the chances of success as a percentage rather than giving a definitive yes or no on the question of whether the portfolio will survive.

We take these results, while based on historic data, to give a good range of potential future outcomes, though this cannot be guaranteed.

Depending on the year in which she started drawing the income (i.e. depending on the pattern of investment returns and inflation from the onset of her retirement), our client may have been able to enjoy a higher withdrawal rate each year without running out of money.

This is demonstrated in the chart overleaf, where the blue bars represent how much could have safely been drawn each year depending on when this client’s drawings started.

Notice the range of sustainable withdrawal rates, with some retirement periods allowing over £40,000 per annum to be drawn, while other periods only supporting drawings of just over £15,000. This illustrates how the variable pattern of returns influences the kind of retirement our client could have.

Historical Maximum Sustainable Withdrawal

Constant Inflation Adjustment

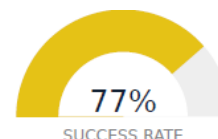


fig 3. Historic sustainable withdrawal rates

Now we consider the same client, but with the application of the following rules that govern how her drawings should change in certain circumstances:

Inflation rule

- If the capital value drops by any amount in any year then you do not take an inflationary increase in your drawings.

Capital preservation rule

- If the rate of withdrawal increases by 20% or more then you will reduce your drawings by 10%. In other words, if your fund value falls by 20% you will reduce your drawings by 10%. This acknowledges that taking drawings from a falling portfolio can be harmful to your chances of success.

Prosperity rule

- If the rate of withdrawal decreases by 20% or more you can increase your drawings by 10%. This is the opposite of the capital preservation rule, and allows you to benefit from strong investment growth.

These rules would apply until the client turns 85, after which time one should not need to take future reductions in drawings and should not need to forego full inflationary increases on their drawings.

These rules were pioneered by US based financial planner Jonathan Guyton. His work was published in the Journal of Financial Planning in October 2004 and this was developed with colleague William Klinger and further findings were published in the Journal in March 2006. They are referred to nowadays as the Guyton Guardrails.

Continuing the above example, the starting withdrawal rate is 4% (£20,000 as a percentage of £500,000).

Capital preservation – if the value of the portfolio falls to £400,000 in year two (and the withdrawal rate becomes 5%, which is 20% higher than the 4% rate it started at) the regular withdrawals would be reduced to £18,000 (i.e. a 10% reduction).

Prosperity – if, instead, the value of the portfolio increases to £625,200 in year two (and the withdraw rate becomes 3.2%, which is 20% lower than the 4% rate it started at) the regular withdrawals would be increased to £22,000 (i.e. a 10% increase).

Below you can see how the same client, implementing these rules, will see her success rate increase.

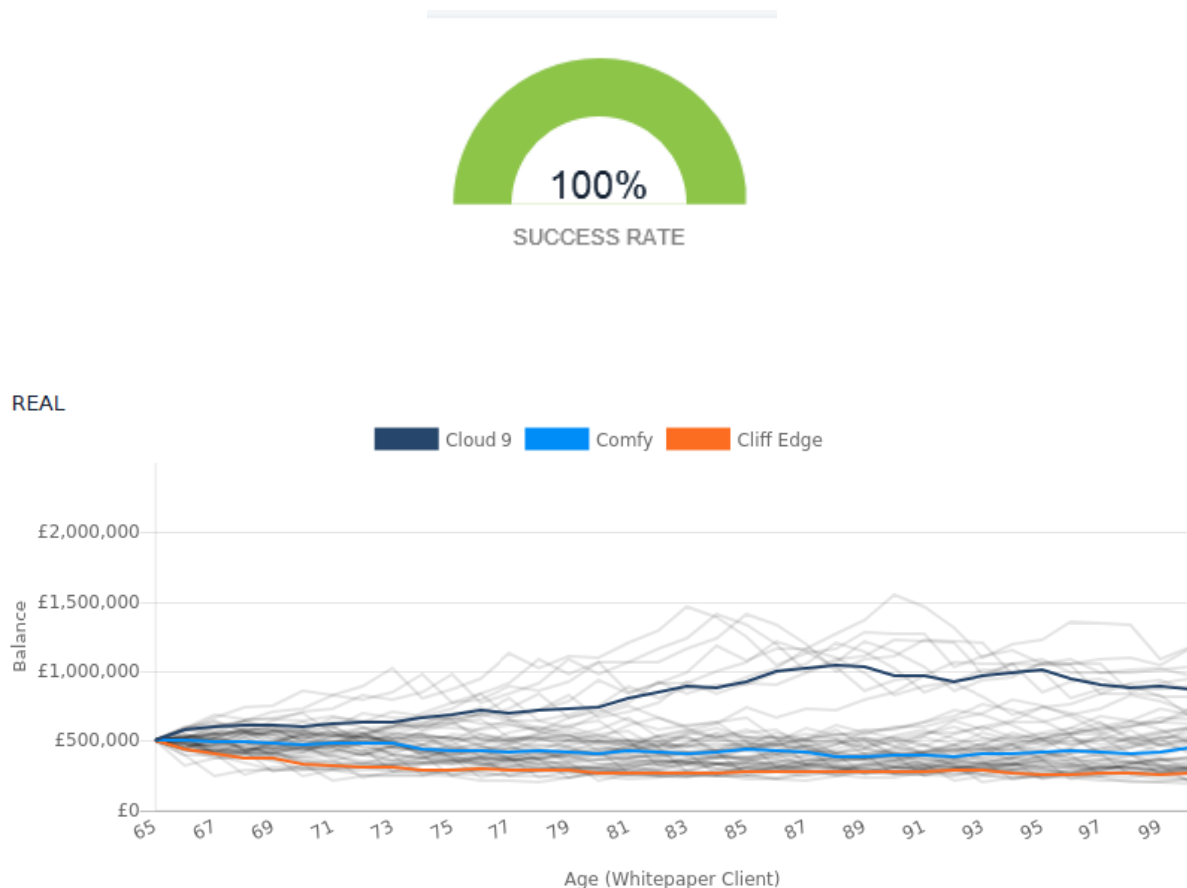


fig 4. Future potential portfolio values in real terms (i.e. after inflation) if rules are implemented

The implementation of the rules has a significant impact on the potential future (real) value of the fund, keeping this from being exhausted.

Being prepared to implement the rules from the outset would historically have increased the sustainable *starting* level of income available.

Historical Maximum Sustainable Withdrawal

Guyton Inflation Adjustment | Guardrails

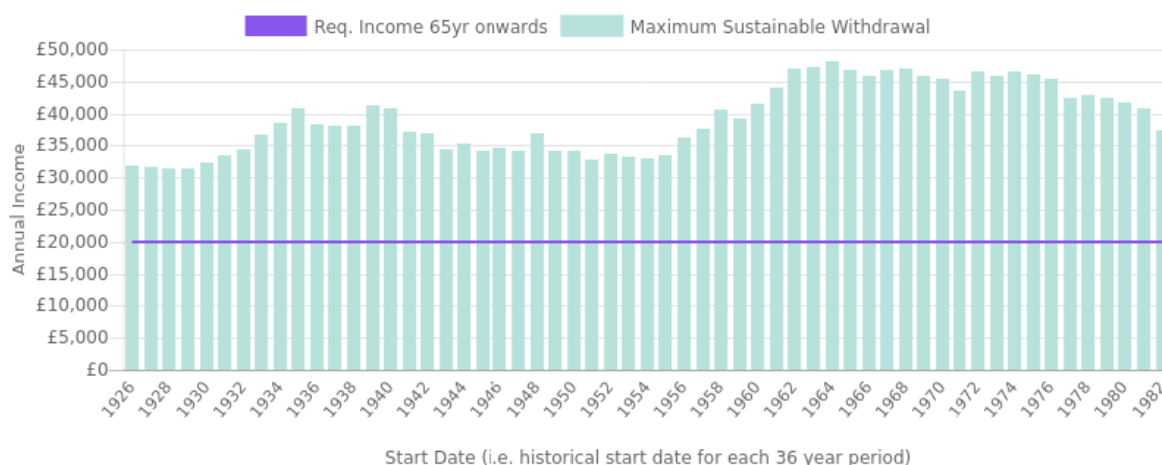


fig 5. Historic sustainable withdrawal rates if rules are implemented

In virtually all periods the sustainable level of income could have started at £30,000 per annum.

So using this example, implementing the Guardrails rules, if the drawing started at £30,000 per annum the future (real) value of capital could have looked as follows (note, even though the real value of the portfolio falls, it is not totally exhausted):

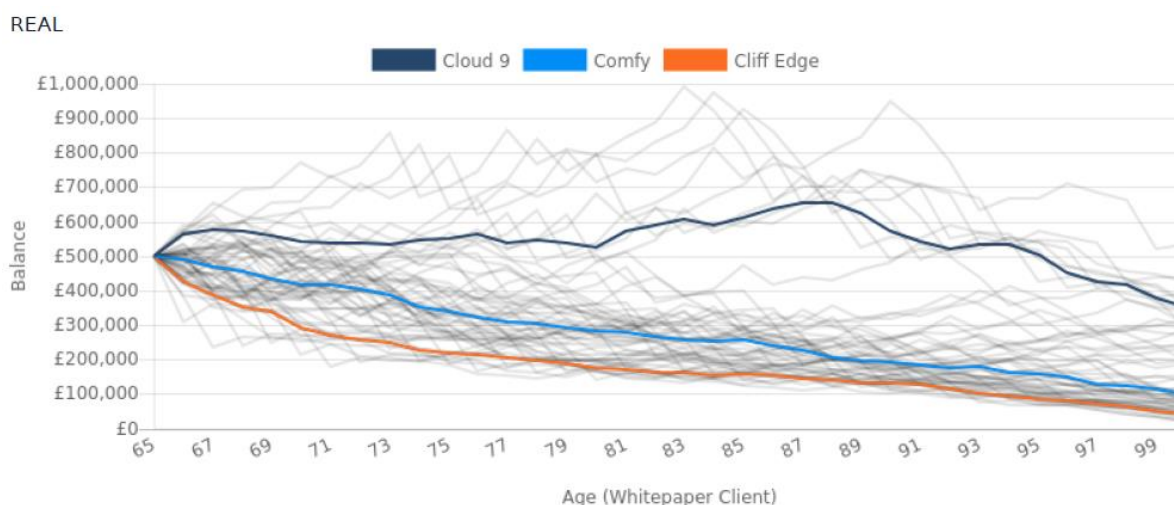


fig 6. Future potential portfolio values in real terms (i.e. after inflation) if rules are implemented and with an initial withdrawal rate of £30,000 per annum

It is important to illustrate the effect of the Guardrails on the real value of the annual drawings in the future, accepting that a real terms reduction would have to be accepted in certain scenarios.

The below chart shows the real value of the income and how this may have changed as a result of implementing the rules. Note that the real rate of income reduces over time in most cases as a result of the rules, which one should consider as being the pay-off for enjoying a much higher initial level of income in the early years, while also preventing the value of the fund from being exhausted.

In this case (using the median average outcome) our client sees the real value of her income dips below £20,000 from age 78, having enjoyed a higher level of income (than she would have without the Guardrails) for the first 12 years of retirement.

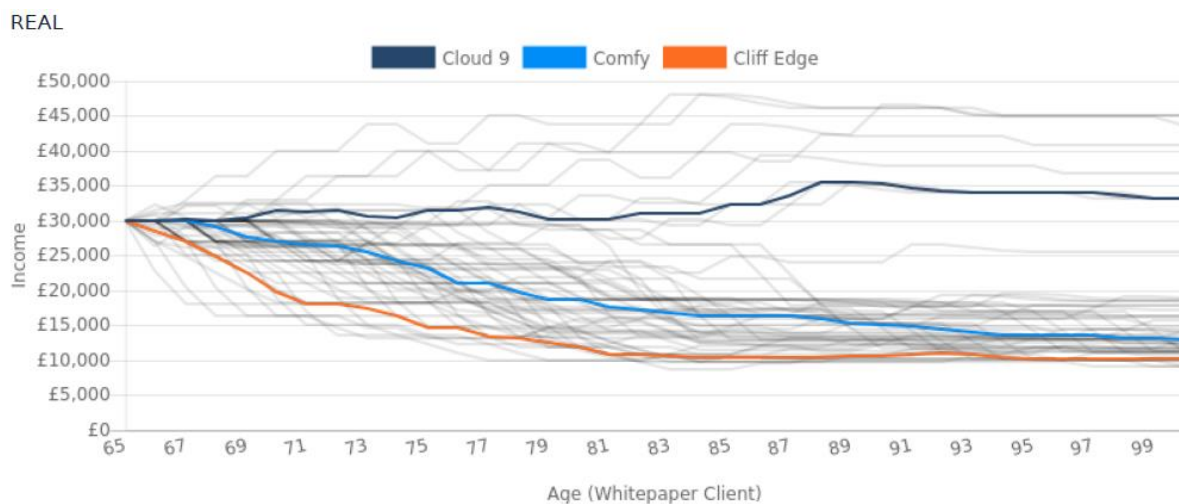


fig 7. The real value of future drawings (starting at £30,000 per annum, but applying the Guardrails rules)

What does risk mean in this context?

Most discussions about risk are concerned with the emotional tolerance to a fall in asset values but when drawing income the biggest risk is that your income will not provide you with the lifestyle income you desire. This presents a dilemma as taking too cautious an approach to investment can actually increase your chances of not achieving the income you need and running out of money.

The below table considers the potential chances of success with a moderate portfolio (and a cautious one) based on a range of different starting rates of income, comparing the potential chances of success with and without the rules.

This is based on a starting value of £500,000 and a 35 year period.

Annual Income withdrawal (£)	POTENTIAL SUCCESS RATE (%)			
	BpH Moderate 60 Portfolio without rules	BpH Moderate 60 Portfolio with rules	BpH Cautious 40 Portfolio without rules	BpH Cautious 40 Portfolio with rules
15,000	100	100	93	100
20,000	77	100	23	100
25,000	23	100	14	98
30,000	14	100	11	89
35,000	7	75	5	53
40,000	4	39	2	35
45,000	0	28	0	7

The table demonstrates the increased potential chances of success if the rules are adopted. The table also demonstrates the mostly increased potential chances of success for taking a moderate (compared with a cautious) level of risk.

Conclusion

We know there is no perfect answer to the question of how much income should be drawn from a portfolio. There are many different factors to consider and so many unknown variables that could threaten the longevity of the portfolio.

Some might feel at ease with the prospect of their liquid assets running out, with the ability to put this right by downsizing or releasing equity from property, or reducing their expenditure so that they can afford to get by on their guaranteed sources of income (such as the State Pension). Some might be happier suspending withdrawals ad hoc when portfolios experience a downturn.

However, we feel the implementation of the Guardrails rules based approach will be right for many of our clients as a means of not only giving peace of mind that they should not run out of money, but also the freedom to see that in many cases they could afford to spend more now – perhaps fulfilling some of those objectives that they felt were just out of reach.

This document is for guidance only and should not be considered as advice. Personal advice can be provided based on your specific circumstances and objectives.

While the themes discussed in this document provide a valuable framework for structuring withdrawals they do not represent a guarantee of future success and your financial plan should be reviewed on a regular basis.

Any mention of safe and sustainable withdrawal rates is based on historic data. Any agreed withdrawal rate for your portfolio should be reviewed on a regular basis to ensure its ongoing suitability.

Source:

Fig 1 – BpH Portfolio Profiles

Fig 2 – 7 – Timeline app

The rules are derived from a study undertaken by Jonathan Guyton as adapted by the Timeline app. Guyton's research was published in the Journal of Financial Planning in 2004 and 2006 (latterly collaborating with William Klinger).

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