SESSIONAL MEETING DISCUSSION



"Pension decumulation pathways: A proposed approach" by the Pension Decumulation Pathways Working Party

[Institute and Faculty of Actuaries, Sessional Webinar, Tuesday 17 May 2022]

This discussion relates to the paper presented by the Pension Decumulation Pathways Working Party at the IFoA sessional event held on Tuesday 17 May 2022.

Moderator (Mr M. A. Woodruff, F.I.A.): I am Mark Woodruff, a qualified actuary and chartered financial planner. I have been running my own wealth management business since 2018, having previously worked at Aviva, Prudential, and St James's Place.

Given the nature of my work, I was excited to learn of the work done by the Decumulation Pathways Working Party, to explore how the challenges in this area can be overcome. The speakers for today are:

Oliver Warren, who is a member of the Pension Decumulation Pathways Working Party. He is based in the Netherlands where he works as an investment consultant and has a particular interest in defined contribution solutions. He works for a global asset manager, helping develop advanced and practical solutions for institutional investors across a wide range of regulatory frameworks. Prior to this, Oliver was an investment consultant at a large consultancy in the UK for over 8 years.

Stephen Hyams, F.I.A., who is the chair of the Pension Decumulation Pathways Working Party. He has 40 years' experience in pensions, much of it at a major consultancy where he provided actuarial advice to trustees and employers of all sizes, across defined benefit and defined contribution schemes. More recently, he has focussed on the challenges faced by consumers in managing their Defined Contribution (DC) arrangements. He chaired the working party, whose paper on "Rules of Thumb", formed the basis of the IFoA's policy briefing, "Saving Goals for Retirement".

I would now like to introduce Stephen (Hyams).

Mr S. D. Hyams, F.I.A.: The idea behind a Decumulation Pathway (DP) is to help those with DC pensions achieve good retirement outcomes through professional guidance, suitable products and ongoing support. I will talk through the concepts behind this, and then Oliver (Warren) will discuss the standard DP the working group has designed and how it performs against both a guaranteed annuity (GA) and drawdown product.

A DP needs to consider three, potentially conflicting, objectives: Objective 1: to provide a reliable lifetime income, Objective 2: to provide flexibility in terms of access to funds, and Objective 3: to provide legacy benefits for dependents.

The GA meets objective 1 (especially when you consider that an index linked option can be added to protect against inflation risk), but not objective 2; whilst drawdown meets objective 2 but not objective 1. In terms of objective 3, drawdown provides some flexibility, giving a choice of either taking income or leaving the money to others, whilst the GA can provide for a pre-defined surviving dependant's pension.

A DP can be offered at the point where a regular lifetime income is required. The DC pot is allocated between the pension fund "PenFund" and the flexible fund "FlexFund". The PenFund provides a lifetime income and the FlexFund meets the needs for flexibility and legacy provision.

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The DP thereby achieves two purposes: (1) allocating DC monies according to a personal balance of objectives, (2) ensuring that suitable products are provided to meet each objective.

Given that most people access their tax-free cash, the FlexFund allocation is typically modest, and will continue to be invested in drawdown type products. Note that a separate legacy fund was rejected on the grounds of simplicity.

The PenFund assets will be transferred into a GA, and/or alternative suitable products, two of which are discussed: (1) The Pooled Pension Fund (Pooled PenFund), and (2) Collective Defined Contribution schemes (CDC).

The main priority of the PenFund, is to balance the need of maintaining sufficient funds before death, whilst avoiding unnecessary frugality in retirement.

This requires a solution to the difficult challenge of concurrently managing the longevity, investment, and inflation risks. Rules of thumb (e.g. withdrawal of 4% p.a.) can provide some structure but they do not respond to market movements, and also require periodic updating. Various other rules have been constructed, typically involving adjustments to income withdrawal depending on the investment performance. However, these are complex to understand and implement.

One method which can help solve these issues is called Notional Annuitisation. This involves an initial assessment of the income that can be afforded for a given initial investment, with periodic re-assessment at intervals of one year or less thereafter. The affordability test is performed using an annuity rate, based on an interest rate (and inflation rate if required) reflecting market pricing, or one that reflects the anticipated return from the investment strategy being adopted. It is notional as an annuity is not actually purchased. This method ensures that funds never run out, as the income is regularly adjusted in response to market movements.

The Pooled PenFund is a term we have used to describe an interesting product that exists in a few countries but not in the UK. The difference from Drawdown is that it pools or insures longevity risk. Like Drawdown, it retains individual DC funds and, hence, the scope to manage investment risk on an individual basis.

There are also Collective Defined Contribution schemes (CDC) which pool assets, i.e., there are no individual funds. This means that investment and longevity risks are pooled between the members.

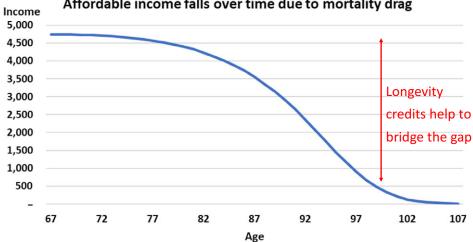
The with profits variable annuity, where income is variable depending on investment performance, used to be popular, but there is no longer a UK market for new business.

So, why is longevity risk management so important in delivering a reliable lifetime income? The answer lies in the uncertainty of how long the income needs to last. You need a much bigger initial fund for a 40-year payout period than for 25 years. With drawdown, this means there is a significant risk of running out of money, or income having to fall to an unacceptably low level, irrespective of how well it is otherwise managed.

CDC automatically pools longevity risk between its members. In the Pooled PenFund, longevity risk is managed by transferring the funds of deceased members into a mortality pool and redistributing the monies to surviving participants in the form of longevity credits.

This process happens at frequent intervals, perhaps monthly. In principle, this is intended to be actuarially neutral. The expected loss on death is the fund size multiplied by the probability of death. This equals the expected gain on survival in the form of a longevity credit. In practice, the longevity credits will depend on the actual funds released on death, which will vary from the expected amount.

Actuarial technicalities need to be balanced against administrative practicalities and consumer understanding. An intuitive, easily explained solution is the Nominal-Gain Method, where the longevity credits initially calculated are all adjusted in proportion by the ratio of actual to expected release of funds on death. Insurance is an alternative to pooling, where the insurer pays out the expected longevity credits in exchange for receiving the actual funds released on death. This



Affordable income falls over time due to mortality drag

Figure 1. Impact of longevity credits

removes the volatility of longevity credits at a modest cost and facilitates consumer communications and clarity of provision.

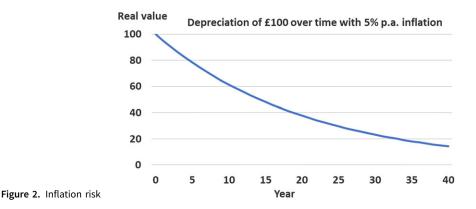
Figure 1 shows how the affordable income determined each year under the Notional Annuitisation approach, falls over time. This is known as mortality drag and can be thought of as the cost of not having longevity risk management. Longevity credits help to bridge the gap, preventing the income from falling in this way. There are two downsides to mortality pooling or insurance. Firstly, the price paid for longevity protection is that the participant's fund on death is lost rather than being paid to named beneficiaries. Secondly, there is the reduction in flexibility in order to protect the pool from selection. For example, a participant in poor health may not be able to withdraw their fund.

In both instances some flexibility may be retained, provided the options are determined at outset, e.g. a modest ability to vary the annual amount withdrawn or to select the investment strategy.

Now let's look at Investment Risk, which is a "rewarded" risk, meaning higher investment returns are anticipated by taking more risk. In the current world of low interest rates, taking investment risk is especially important in order to help make retirement more affordable, and this is an important driver for seeking alternatives to the annuity. The Pooled PenFund and CDC both have greater investment freedom with consequential potential for significant outperformance, although the income they provide is variable and comes with no guarantees. While investment returns can vary from year to year, the order is important, especially in the run-up to, and shortly after retirement. Due to this so-called "sequence of return" risk, the impact of a poor return in retirement followed by some good returns is more damaging than if the good returns happen first.

Unlike an annuity, where the investment risk is transferred to the insurer, the consumer directly bears the investment risk in a Pooled PenFund, while under CDCs the investment risk is pooled between the membership. Further the pooling of assets under CDC results in a degree of investment subsidies between generations, but in the UK these are modest, and arise due to the way in which variations in income are smoothed over time.

Finally, I will look at inflation risk. Figure 2 shows the potentially devastating impact of a longterm inflation rate of 5%. After 10 years, £100 is only worth £60. Despite this, most annuities purchased are fixed or non-increasing. The obvious attraction of a fixed Annuity is a much higher initial income, while inflation risk may be viewed as a more distant uncertainty. Having said that



there is some evidence to suggest that expenditure typically falls in real terms with advancing age, and there is no noticeable pickup in later life to meet the cost of long-term care. In addition, the customer's own funds are only part of the total picture, with the UK state pension, which is protected against inflation, being another important resource.

I will now hand over to Oliver (Warren) to explain the Standard Decumulation Pathway we have designed.

Mr O. H. Warren, F.I.A.: The Standard Decumulation Pathway is designed for a typical consumer with a defined contribution pension pot, which could potentially be used as a default solution in retirement. Its main objective is to provide a reliable lifetime income with a modest provision for flexibility and legacy. Bearing in mind that people will have typically taken tax-free cash, the standard design has a 90% allocation to the "PenFund" and a 10% allocation to the "FlexFund". The withdrawal strategy is to target an inflation-linked income using the Notional Annuitisation method that Stephen (Hyams) described earlier. The annuity rates are based on a best estimate of the expected returns from the assumed investment strategy.

A medium risk investment strategy with a 50% equity allocation has been assumed. Although this appears quite risk-seeking, the modelling suggests that the longer-term downside risk is relatively modest. That said, it would be for pension providers to determine the most appropriate investment strategies to offer their target market.

To test the suitability and potential success of the standard design, we examined 1,000 stochastically generated economic scenarios, further details of which are provided in the paper. Figure 3 plots the real income for all 1,000 simulations for the standard DP, with various percentiles highlighted.

The modelling assumes the member enters the pathway at age 67 when the State Pension is also assumed to be payable. We see that the dark blue line, the median real pension income from the pathway, is broadly flat, indicating that purchasing power is, on average, expected to be maintained during retirement. Also clear is the asymmetric upside versus the downside, reflecting the potential for growth assets, such as equities, to offer very high returns in some scenarios.

A series of metrics was devised to measure the success of alternative design features when constructing the standard DP. The metrics are all income based, differing from the more conventional approaches of assessing outcomes based only on investment risk or on the chance of running out of capital. The first metric is Average Income, which is the average inflation-adjusted income received over a 30-year period. This is expressed as a percentage of the initial PenFund allocation. Visual representations of the associated outcomes are shown in Figure 4. The median outcome, where the green and red bars join, is 4.1%, slightly above the initial income of 4%. There is a relatively wide spread of outcomes with an interquartile range between 3.3% and 5.1%. For comparison, the immediate purchase of an inflation-linked annuity provides an income of 3%. The "Exceeds Annuity" metric shows this comparison explicitly, with the median outcome of 4.1%

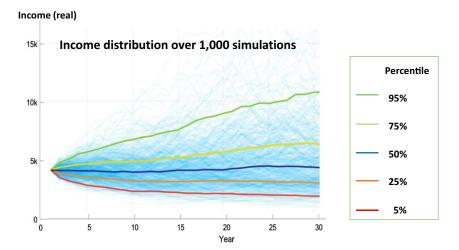


Figure 3. Stochastic modelling

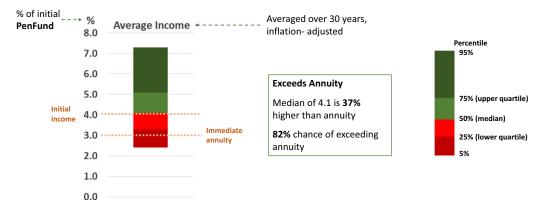
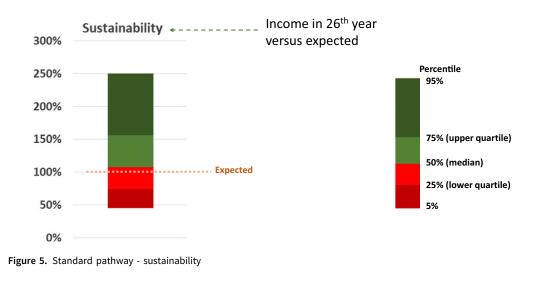


Figure 4. Standard pathway - average income

being 37% higher than the inflation-linked annuity. Overall, there is an 82% chance that the standard DP will provide a higher average income than the annuity, or, from a downside risk perspective, an 18% chance that the standard DP under-performs relative to an annuity.

The second metric is Sustainability, which measures the real income in the 26th year of retirement versus the initial income. It therefore considers how well income holds up over a long period of time. The 26th year was chosen as there was a reasonably high chance, around one third using the mortality assumptions we adopted, that consumers will live that long. Such a metric suits a notional annuitisation withdrawal strategy, where pension income is automatically adjusted for the remaining pension capital. In contrast, the 4% rule, which Stephen (Hyams) already referred to, would either pass this test with a value of 100% if there was sufficient capital left, or fail if the capital had run out. Visual representations of the associated outcomes are shown in Figure 5. The median outcome for the Sustainability metric is 108%. That is the income in the 26th year is expected to be 8% higher than the initial income of 4%, increased by inflation over the intervening period. The interquartile range for the Sustainability metric is between 74% and 156%, and in the worst-case outcome shown the fifth percentile is 45%. This demonstrates good sustainability, although the downside risk should be considered.



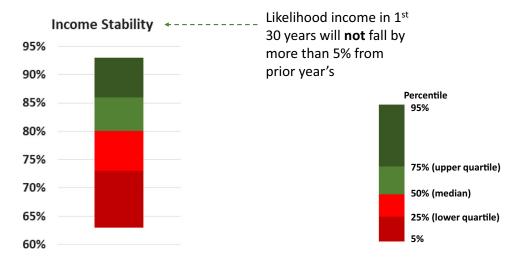


Figure 6. Standard pathway - income stability

Consumers value stability and are likely to be especially sensitive to any large falls in income. The Income Stability metric measures the chance that, over the first 30 years of retirement, the income will not fall by more than 5%, relative to the previous year's income. Whilst this could have been determined relative to inflation, the metric was chosen based on absolute values, since that is what is most likely to cause concern.

Visual representations of the associated outcomes are shown in Figure 6. The standard DP provides a reasonable level of income stability. In 80% of cases, the pension is not expected to fall by 5% or more. The downside risk is clear with the fifth percentile being around 63%, meaning that more than a third of annual pension evaluations show falls of 5% or greater. It should, however, be noted that many of these falls will have been preceded by large increases in pensions. In practice, there are ways of improving the stability, such as smoothing changes to the pension income over a given period. Unintended cost subsidies would want to be avoided, though, so smoothing periods would need to be limited. Another method would be to use the FlexFund to smooth the income, as will be discussed later.

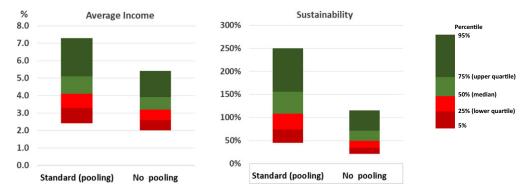


Figure 7. Impact of mortality pooling

Reducing investment risk is another way to improve income stability. This might be by reducing the allocation to risky assets, such as equities, or by a better matching of the interest rate inherent in the notional annuity process. Lastly, income stability can be improved via explicit protection against large falls in the capital value, for example, using derivatives or structured products, as is seen in some retail products. Finding the right risk-return balance for the target membership would be needed, having regard for the cost of protection.

Longevity risk management is achieved via mortality pooling using the Pooled PenFund, phased in over the age range of 75 to 79. In Figure 7, Average Income and Sustainability for the standard DP are compared to the same design but without mortality pooling. The Average Income is higher across the board for the standard design, reflecting the longevity credits granted. The 4.1% median Average Income for the standard design compares to 3.2% for the same approach with no mortality pooling. Similarly, the median of the Sustainability metric reduces from 108% to 49% with no mortality pooling. Mortality pooling or insurance is therefore vital to achieve a sustainable lifetime income. Without it, there is a significant risk that consumers who live to a reasonably high age will see their income fall or their money run out.

The disadvantage of mortality pooling is, of course, that for consumers who die younger, there will be less money available for passing on as inheritance. However, as Stephen (Hyams) has already mentioned, dependent pensions and guarantees could be built into the notional annuitisation process and the implied allocation of longevity credits. Consumers would also be free to allocate a higher percentage of their pension pot to the FlexFund, if desired.

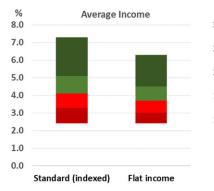
Alongside the results presented in Figure 7, we found that introducing mortality pooling in one go at age 75 was slightly superior on these measures, due to the additional longevity credits which would be paid. However, this approach suffers from the sudden removal of legacy benefits which some consumers may find disconcerting. A phased approach softens this impact.

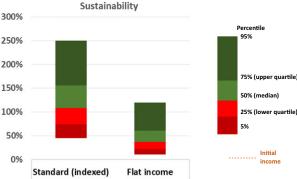
Finally, substituting an insured annuity for mortality pooling generally gave inferior outcomes due to the removal of expected superior investment outperformance.

In the standard design, an inflation linked income has been assumed in retirement, i.e. the notional annuitisation process allows for expected increases in line with inflation. If a level income is applied, as shown in Figure 8, the initial income rises to 6.1%, much higher than the 4% for the standard design. However, this will lead to an expected fall in real income over retirement as the impact of inflation can be severe over long periods, as shown by the Sustainability metric outcomes, which are all much lower with a flat income.

For a default approach, we believe that a pension income expected to broadly maintain purchasing power is a necessary feature.

For the notional annuitisation method, the standard design uses annuity rates reflecting a best estimate of the return from the investment strategy. In our example, this is 2% per annum higher







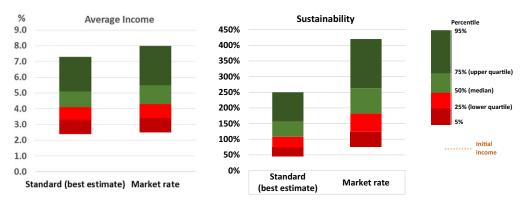


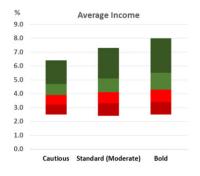
Figure 9. Impact of annuity interest rate

than real market interest rates, but the assumption will depend upon the underlying investment strategy and will need to be reviewed from time to time. Figure 9 shows that the median Average Income of 4.1% is close to the initial income of 4%, as expected using a best estimate approach. Similarly, the median Sustainability of 108% is reasonably close to 100%. Incidentally, we understand that CDC in the UK requires a best estimate approach.

Using market interest rates, the initial income falls to 3%, the same as from the immediate purchase of an index annuity. Average Income is similar to the standard design though, as the higher income taken earlier is at the cost of lower available income later. Using market rates does, however, lead to a less satisfactory income shape. Sustainability results show there is a much higher prospect of an increase in real income, which is likely to be seen as an unattractive feature and unfavourable to those customers who die soon after mortality pooling is introduced.

Our results relating to investment strategy are shown in Figure 10. The moderate investment strategy is typical of the range adopted under investment pathways for those who plan to start taking income within the next five years. With a 50% equity application, moderate would typically be described as medium risk. As noted earlier, investment strategy is a trade-off between risk and return. The notable observation is that the modelling and metrics indicate similar downside risk regardless of the initial equity allocation. There are, however, substantially different upside potentials.

On the face of it, the results suggest that a bold strategy might be most appropriate and for some consumers that might be the case. However, such a high equity strategy can lead to substantial short-term volatility in fund value, which would be a concern to some people, as well



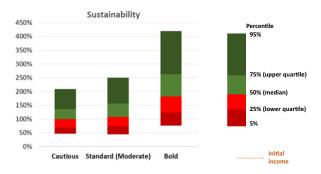


Figure 10. Impact of investment strategy

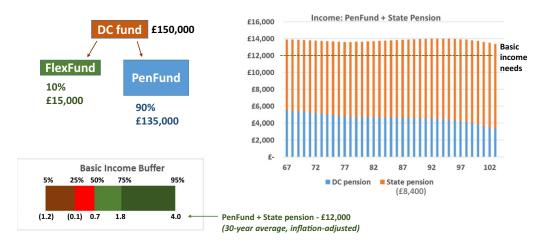


Figure 11. Flexible fund allocation

as the risk of more extreme downside outcomes than we have shown. In turn, the short-term volatility of pension income will, of course, be of great concern, but as discussed there are potential ways to mitigate this. We, therefore, chose the moderate strategy for the standard design but acknowledge that more work is needed to evaluate optimal investment strategies. It should also be noted that the FlexFund investment strategy may differ from the PenFund strategy.

We chose a 10% FlexFund allocation for the standard design because it is modest, leaving most for the lifetime income. For a DC fund of £150,000, this leaves £135,000 for the PenFund. We investigated whether the income from such a PenFund, combined with a State pension, was sufficient to meet basic income needs in retirement. The results from our analysis are shown in Figure 11.

Basic income needs were assumed to be £12,000 before tax and to increase with inflation each year. A Basic Income Buffer metric was devised as being the amount by which the total inflationadjusted pension income exceeds the basic income needs over a 30-year period. The results show that, with a £150,000 initial pot and a 10% FlexFund allocation, there is a good chance of meeting basic income needs throughout retirement. For initial DC pots below £100,000, with no FlexFund allocation, basic income needs are unlikely to be achieved. For initial DC pots above £200,000, there was more scope to increase the FlexFund allocation. Note that this analysis ignores any other sources of income apart from State pension. For example, any material defined benefit pension would very much change the conclusions. As already alluded to, the PenFund and FlexFund could be used very effectively together. An initial allocation between the two would be made. 10% of the FlexFund is proposed for the standard DP. However, during retirement money could be moved between the two according to changing circumstances or preferences. Consumers seeking a higher pension income, for example, could transfer money from the FlexFund to the PenFund. The FlexFund could also be used as a buffer for smoothing fluctuations in pension income due to investment market volatility. This setup could be facilitated if the PenFund and FlexFund sat within the same product or trust so that transfers between the two were inside the pension wrapper. It would also be simpler and cheaper to operate if they used the same investment strategy.

If insured annuities are used for the PenFund, this set-up is also possible as demonstrated by products already offered in the market. Another option is to pay all pension income from the PenFund into the FlexFund. In this way, the consumer would see the FlexFund as their pension savings account from which they could draw a regular income into their personal bank account.

We outlined earlier two alternative products for managing longevity risk. The Pooled PenFund and the CDC. Both offer the potential for significantly higher income than a guaranteed annuity due to their greater investment freedom. The downside is, of course, the potential variability in income. Current UK CDC legislation is for single-employer solutions although future developments may allow multi-employer solutions. This is likely to be necessary in order to offer CDC to consumers with individual DC pots. From the consumer's perspective, CDC would likely be a very straightforward experience. Investments are pooled and there are normally no, or minimal, choices to make. They would, however, generally lose the connection to individual pots of money.

The Pooled PenFund is distinct from the annuity and CDC in that it retains individual DC funds after retirement and decouples the pooling of longevity risk from the investment strategy. Much research has been carried out in this field, and some products are starting to emerge which could be applied to the UK market, although these are very much in their infancy. Products have been introduced in Canada and Australia which look very similar to the Pooled PenFund, but it is perhaps in the Netherlands where this approach is most advanced. Dutch variable pensions were introduced in 2016 and are offered as an alternative to insured annuities for people with DC pension pots. Longevity risks must be pooled or insured, and the choice will often be determined by the provider size and whether the provider is a pension fund or a commercial provider. Pensions are recalculated at least annually in a similar way to the standard DP. Importantly, even with insured longevity management, there is allowance for projected mortality rates to be updated, meaning equivalent insurance costs are lower than for insured annuities.

The last issue we highlight is impaired life annuities. These are available in the insured annuity market and there is, therefore, a question of whether they should also be offered in a Pooled PenFund market, and indeed under CDC arrangements. Alternatively, consumers who may potentially qualify for impaired life status could be warned that they may be better off purchasing an insured annuity. I will now hand back to Stephen (Hyams) to conclude the presentation.

Mr Hyams: Our working party was charged with considering how consumers can be automatically protected from making poor decumulation decisions. Clearly, the preferred outcome is that they will make good, well-informed decisions based on clear information and guidance and an adequate range of quality products. Decumulation pathways can help promote such an outcome. The standard Decumulation pathway could also act as a default solution aimed at the typical consumer for those who prefer a readymade approach. There could then be some options for those who wish to tailor the standard model, such as to amend the FlexFund allocation or the investment strategy.

Good decisions need to consider all available financial resources. FCA data reveals that a large proportion of small DC funds were fully withdrawn. Might this tendency reduce if a more holistic view were taken on financial assets? The pensions dashboard will help in this regard in collating

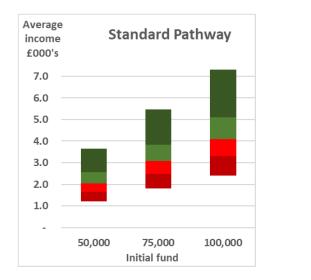


Figure 12. Understanding risk

these multiple DC funds, alongside defined benefits and state pensions. Clearly, choosing a suitable Decumulation strategy is crucial and needs ongoing management.

This is challenging, where advice, if taken at all, tends to be limited to investment strategy rather than the amount to withdraw. The DP can take care of this matter with default withdrawals put in place that are automatically taken throughout the period of retirement.

A particular concern with consumer decision-making is a natural tendency for people to focus on the median outcome due to its simplicity. The problem is that this does not reveal the range of uncertainty that exists. Suppose someone aged 67 requires an index-linked annual income of £3,000, as indicated by the horizontal orange dotted line shown in Figure 12. A fund of £100,000 invested in an index-linked annuity will guarantee such an income. With £100,000 invested in the standard Decumulation pathway, there is a moderate risk of average income, as defined earlier, falling below £3,000. Depending on the consumer's risk tolerance, a smaller initial fund could be contemplated using the standard DP. For example, the median average income is £3,000 with a fund of only £75,000, but with greater chance of not meeting the £3,000 target. There is surely an important role for actuaries here in helping consumers evaluate the fund size needed at retirement to achieve the desired lifetime income and thereby, how much to contribute to achieve that target fund.

So, what are the key messages of our paper? Firstly, flexible access helps make drawdown very popular, but this comes at the price of no guaranteed, sustainable lifetime income and the need for ongoing management. The guaranteed annuity solves these issues, but is generally unpopular, in part due to the cost of the guarantee.

For those willing to take some investment risk, there is potential to have an increased income for a given starting fund, albeit that it is not assured. This is where the Pooled PenFund and CDC may be attractive. Should both these products be offered?

Making good choices at retirement requires the setting of meaningful measures of success and understanding of risk of failure. More needs to be done to help support consumers in that regard. Finally, not everyone will be engaged and prepared to consider the full range of options. The default Decumulation pathway could help serve such needs.

Now we will move to the Question and Answer session.

Question: I refer to the example of the "defined contribution pension fund" of £150,000. This lead to 10% (£15,000) going into the FlexFund and 90% (£135,000) going into the PenFund. As

I understand it, that £150,000 was net of the tax-free cash which in this scenario would have been \pounds 50,000. So, in total, we have a starting amount of £200,000 to invest or spend so the consumer has an element of further flexibility, is that right?

Panel: That is exactly the way we saw it. We assumed that people would enter the Decumulation pathway after they have taken their tax-free cash. That is part of the reason we have a relatively modest FlexFund allocation, because we assume that there is a degree of flexibility already there. Plus, as we said earlier, we are assuming the main intention is to provide a lifetime income and therefore we thought a modest FlexFund allocation would be appropriate for the standard DP.

Question: Do you think that a Pooled Pension Fund is suitable for those individuals with impaired health?

Panel: The Pooled PenFund provides a method whereby a large group of people will receive a lifetime income, but it is likely that the pool of people will live slightly longer, on average, than an impaired life. Consequently, those with impaired health may be better off with an enhanced annuity, underwritten on an individual basis.

It is therefore appropriate to alert consumers that the product may be unsuitable for those with impaired health. There is no reason in principle why you cannot have underwriting in a Pooled PenFund though. If there is an insurer involved, it makes it easier, and we have made that point in our paper.

Question: How many lives do you think would be needed in a Pooled PenFund to successfully manage the longevity risk?

Panel: The direction of travel for DC in the UK is towards consolidation. So, the general trend will be towards large DC pension arrangements where there are a sufficient number of people. There has also been some research carried out on this which indicates that you do not need a huge pool to make the volatility relatively small. I think you need in the region of a few thousand people. If you do start off with a relatively small pool, there is always the option of taking out insurance for the longevity risk. The other thing I found interesting from our modelling is that the variation in overall outcomes due to volatility in the allocation of longevity credits is relatively small compared to the variation due to applying a range of investment returns.

Question: You mentioned administrative costs in the presentation. How much do you think this approach would cost, and would it represent good value for money for a consumer, especially if they are just a small firm?

Panel: I have been led to understand that it is a small cost, a relatively modest number of basis points.

Question: How do consumers use their combined DC pots to smooth income or consumption over old age which may start before the State pension age. For example, how would it work if an individual wanted to retire earlier than 67?

Panel: We did consider this and had the idea of the FlexFund sitting alongside the PenFund where they would work together. So, you would have a flexible pot which could help bridge the gap.

Question: Did the working party explore the option of a deferred annuity with a late starting age, say, 87?

Panel: From a consumer point of view this could be a useful option but the inherent investment and longevity risk, and associated reserving requirements make this product commercially unviable at the present time.

Question: Has the working party attempted to explain how this decumulation pathway works to potential consumers?

Panel: Engaging with consumers is very important, and we believe that the focus on income levels, and the sustainability of that income, under a range of scenarios is a relatively simple way to engage with consumers. In particular, the discussion should focus on helping people understand the impact of investment and longevity risks. If the consumer is concerned about the volatility of

longevity credits, then a Pooled PenFund that uses insurance can be considered which will eliminate this volatility.

Question: If this type of product is introduced in the UK, which regulator do you think it would fall under?

Panel: This remains unclear, but I think in terms of the current regulation it would impact on "The Pensions Regulator" (TPR), the Financial Conduct Authority (FCA) who are interested in customer outcomes, and the Prudential Regulatory Authority (PRA) who are interested in ensuring the financial security of insurers amidst the uncertainties of longevity, investment, and inflation risks.

Question: In the view of the panellists what is the biggest barrier to PooledFund set up today in the UK?

Panel: The biggest barrier at the moment is that this is not a high priority for the UK government, although it is worth pointing out that there is momentum behind CDC, with which the UK government is currently engaged.

Question: So, what would you like to see happen next, and what should the IFoA or industry do to take these ideas forward?

Panel: There has been a lot of academic research, including from the IFoA. However, developing these ideas into a commercial solution in the UK has not had as much momentum as it has in other countries.

It would be useful to ask consumers what they would like. In some ways, the Pooled PenFund and CDC are similar. There is a difference in that the Pooled PenFund retains individual pots of money and provides a little more control over flexibility and choice. So, it would be interesting to know if people value that control or whether they would rather just have an easier solution, such as CDC, where the investment and longevity risk is pooled, and the customer does not need to be actively involved.

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