Helping consumers and providers manage defined contribution (DC) wealth in retirement

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Forward

In the 2014 Budget, the UK Government proposed major pension liberalisation for consumers with defined contribution (DC) wealth. From April 2015, consumers aged 55 and older will be able to draw on their DC wealth in a form they choose, at any rate they choose, at any time they choose.

Research and thinking is starting to fill the gaps in our knowledge that arise from the changes. New solutions for people to draw on their retirement saving in ways that are more appropriate to the new environment are being considered, as are the challenges and opportunities present for players in the market.

The purpose of this paper is to contribute knowledge to this gap by pulling together key elements useful in informing the design of retirement solutions for consumers with DC wealth and providers who serve them.

The consumers focused on in this research are aged 55+. This is the period when people move from a pension accumulation or savings phase to a pension decumulation or consumption of savings phase. This need not mean ceasing paid employment completely. It may involve:

- Moving from full time work to part time work.
- Receiving one income from work and one from pension savings. This may involve still contributing to DC wealth in one pot while drawing on DC wealth held elsewhere.
- Drawing retirement income from DC wealth.

We need to bear all the above in mind when we consider retirement issues in this paper.

This paper provides a framework of evidence around the following four core themes to help investment intermediaries, advisers, and consumers:

1. How long does DC wealth need to last?
2. How much DC wealth is there?
3. What opportunity and challenge does the new regulation present, and what are consumers likely to want and do?
4. Investment modelling around potential products and solutions
The paper does the following

**Chapter 1** shows us that life expectancy is increasing and people are underestimating how long they will live. Retirement solutions should take into account life expectancy and survival probability measures as people will need to make their wealth last longer than they expect.

**Chapter 2** builds-up a picture about the different pots of wealth people have at retirement and the different amounts these pots are worth, as well as what proportion is DC and what proportion is DB. It gives a strong idea of the ways in which people regard the different pots, such as the reluctance to use their own private wealth to improve retirement income. This means designing solutions that could encourage people to use their wealth more efficiently in retirement.

**Chapter 3** talks about how we might start to design retirement solutions which will interest consumers in the 3 broad groups we identify. In doing so we look at the recent change in regulation alongside what we know about consumers’ dislike of compulsory annuitisation, their tax position, investment risk appetite, and their likely demand for a solution that will allow both a regular, steady income and flexibility of income.

**Chapter 4** looks at what investment modelling says about the framework we have developed for the three groups of consumers and where we can potentially deliver more value for them.
Chapter 1:  
UK demographics that inform retirement investment design

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Introduction

This chapter talks about how long consumers are likely to live, how long they expect to live, and how this may affect their financial circumstances in retirement. We are trying to establish a reasoned answer to the retirement planning question: how long does the money need to last?

Throughout this chapter we should remain mindful that forward projections of population, life expectancy and survivorship come with a degree of uncertainty. They are informed estimates and a base case to begin planning and thinking around.

Recommendations

1. Retirement solutions should be designed around cohort life expectancy.

2. The base case for the design of retirement solutions should be couples. The number of widowers increase later in life, but they are the remainder of a couple. (NB: For the purposes of this report, widowers are the surviving member of a couple.)

3. If we want to increase our conviction that we have designed appropriate retirement solutions we should design for two or three years after life expectancy. This will take into account life expectancy itself, the mean of the distribution, and the most likely age of dying (the mode of the distribution) which is usually two or three years later.

4. Life expectancy risk should be fundamental to the design of retirement solutions.
Summary

There is a gap of two to seven years between how long consumers think they are going to live and how long experts believe they are actually going to live. Men are expecting to live to 81 or 83, and women to 82 to 85, but experts think they will live to 86 and 89. When consumers talk about their chances of living to an advanced age – 90, 95, or 100, the gap between what they believe and what experts think grows.

Consumers are aware and interested in how long they can expect to live, and there is awareness that life expectancy is increasing. Yet few have a concrete plan for the eventuality of a long life other than to keep hold of any DB pension should they have one. When asked what they’d fall back on if they live longer than they expect consumers talk about downsizing, equity release, and inheritances, but not annuities.

Between two-thirds and three-quarters of people aged 65 live in couples. Later in life the number of widowers increase but we need to remember that they are the remaining part of a couple. At age 65+, just 20% of people are part of a couple or a widower. When thinking about how long the money needs to last we should have in mind couples.

The life expectancy of couples is longer than individuals. There is a one in two chance that one or other of a couple will be alive at age 95. This means that one in two couples will need to stretch household financial resources to 30 years of retirement or more. There is a one in four chance that one or other of a couple will be alive at age 100. The challenge is huge for consumers with DC wealth at age 65.

Both life expectancy and the likelihood of living to a particular age are uncertain, and the actual variability in these numbers is greater than the variability we normally associate with a diversified investment portfolio. This suggests that life expectancy risk should be fundamental to the design of retirement solutions.

Insurance is one way of offloading the risk of living to an advanced age. However, so long as consumers are not expecting to live as long as experts believe they will, consumer demand for longevity insurance is likely to be limited. What does not seem right to many consumers is handing across what feels like a large amount of wealth close to or at retirement to purchase an annuity or other longevity based product. Consumers value their DC wealth and many are not going to lightly give it up to a provider who will pay them a constant income until they die and keep anything left. Experience from Australia suggests that in a free market demand for traditional pension annuities largely disappears. And consumers are right in a sense. The purchase feels like a loss because they may never see half that money again, let alone all.

Many experts believe that auto-enrolling consumers into some type of longevity insurance so they can receive a constant retirement income for as long as they live is highly contentious. They think this more contentious than taking contributions from income in the accumulation phase and investing them.

Consumers generally feel that there is little point worrying about needing to pay for long-term care as no one knows if they will need it. DC wealth is not something people would turn to even if they had a need for long term care. Pensions are there to provide for the foreseeable, people say. Savings set aside for unforeseen circumstances are the first potential source of funds. But because long-term care is an if, not a when, there is very little propensity to earmark savings only for the purpose of care.
Financial literacy is reported to decline 1% to 2% each year after age 60, but the rate of decline does not steepen with advanced age. At what point should retirement income decisions of older people not be their own, while the financial decisions of other age groups that also show low levels of financial capability be their own? We tend to be hearing only one side of the debate and this is being put to us by those who favour defaulting people into forms of constant lifetime income. At present this has the look of providers interpreting research findings in a way to justify what they want to do commercially.

1.1 The UK’s population
The UK population is expected to grow from 64 million in 2013 to 65 million in 2017, 70 million in 2028, and 73 million in 2035 (ONS, 2014; Rutherford, 2012).

This is equal to a growth rate of 0.63% per annum over the next 20 years. There will be some variation in growth year-by-year due to differences in the proportions of births to deaths and net immigration in that year.

1.2 The population aged 65 and older
The number of people aged 65 and over is projected to grow at 2.0% per annum over the next 20 years. The faster growth rate compared to the population overall means that the age structure of the UK population will gradually become older, with the average age of the population rising from 40 years in 2010 to 45 years by 2060 (Rutherford, 2012). In 2015, one in six of the UK population are aged 65+, but by 2050 one in four will be aged 65+ (National Statistics, 2014). In 2015, 11 million people are aged 65+, in 2035, 17 million will be.

The pensioner population will also grow even with scheduled increases in the women’s state pension age to 65 between 2010 and 2020 and an increase for both men and women from 65 to 68 between 2024 and 2046. The number of people of working age divided by the number of people of pensionable age is projected to fall from 3.2 in 2010 to 2.9 by 2035 (ONS, 2011). The continued shift to an older age structure means we can expect the media to often lead on topics such as the funding of the state pension, the resources of the National Health Service, social care, and care-home capacity.

1.3 The population aged 80 and older
We have identified that the population aged 65 and older is growing quickly, but the number of very old people is growing faster. Between 2015 and 2035, the number of people aged 80 and over is projected to grow at 4.7% per annum. There are currently three million people aged 80 years and older, but this is projected to almost double by 2030 and reach eight million by 2050.

To summarise, the rate of population growth for cohorts relevant to retirement planning are:

<table>
<thead>
<tr>
<th>Population growth estimates between 2015 and 2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015 to 2035</td>
</tr>
<tr>
<td>Overall population growth</td>
</tr>
<tr>
<td>65 and over population growth</td>
</tr>
<tr>
<td>80 and over population growth</td>
</tr>
</tbody>
</table>

Chart 1 shows that the highest rates of population growth are for ages 85-89, 90-94, 95-99, and 100+. 
1.4 People living over 100 years of age

We now briefly focus on the growing likelihood of consumers being centenarians. Chart 2 looks ahead 50 years in time and shows the growth rate of people in older age groups. Early in this chapter we saw that the age 80+ population is growing faster than the age 60+ population, which in turn is growing faster than the whole population. Chart 2 shows that the fastest rate of growth is the 100+ age group. The chance of living to age 100 is growing by an average of 1.3% per annum, which is three times faster than the projected growth in life expectancy of the 50 age group (0.4%).
1.5 Origins of the ageing population

The ageing population is a consequence of the impact of rising life expectancy and the large number of people born during the 1950s and 60s. We are going to focus on the life expectancy part – or how long people can expect to live, on average. The Office for National Statistics (ONS) measures two types of life expectancy:

1. Period life expectancy – this shows life expectancy in a given period, e.g., as at 2015, for differing years of birth.
2. Cohort life expectancy – this tracks the experience of a given cohort who share the same year of birth year after year and takes into account known and predicted improvements in mortality. Projections of cohorts are based on extrapolation of past trends in mortality improvement and expert opinion about future trends.

Table 1 puts the two measures of life expectancy side-by-side to illustrate the stark difference between them. This uses the example of life expectancy at birth, which presents the measures at the point of maximum difference. The two measures show that cohort life expectancy is 10 years longer than period life expectancy.

**Table 1**

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2037</th>
<th>2062</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Period</td>
<td>Cohort</td>
<td>Period</td>
</tr>
<tr>
<td>Males</td>
<td>79.0</td>
<td>90.6</td>
<td>84.1</td>
</tr>
<tr>
<td>Females</td>
<td>82.7</td>
<td>93.9</td>
<td>87.3</td>
</tr>
</tbody>
</table>

*Source: ONS*

Table 1 shows that:

- **Period life expectancy**: In 2037 projected period life expectancy at birth is 84.1 years for males and 87.3 years for females, an increase of around five years on 2012.
- **Cohort life expectancy**: In 2037 projected cohort life expectancy at birth is 94.3 for males and 97.3 for females.

The ONS believes that cohort life expectancy is a better measure of how long a person of a given age is expected to live. In support of this view, the actual experience of life insurance companies is that the lives of annuity purchases follow cohort life expectancy far more closely than period life expectancy and they use cohort life expectancy as the starting point to price lifetime annuities. Chart 3 presents life company tables published by the Institute of Actuaries.
Chart 3 – Institute and Faculty of Actuaries population and annuity purchaser life expectancy at 65

Table 1 also shows that the gap between how long men are expected to live is slowly catching how long women are expected to live. In 2012 the women are expected to live 3.7 years longer than men according to period life expectancy. By 2062 that gap is 3.0 years. The gap has also gradually been closing over the past 40 years. Greater improvement in male life expectancy is thought to be a result of change in working and social behaviours. For example, relatively high numbers of men who started smoking have now given up, and changes in patterns of male employment away from heavy industry may also have had some effect. There is debate as to whether life expectancy will continue to improve at current rates indefinitely or whether lifestyle factors such as a rise in levels of obesity and in antibiotic resistance may cause the rate of mortality improvement to stop or even decline.

1.6 Life expectancy and survival probability of individuals aged 65

Life expectancy of a person at age 65 is higher than for the same person at birth because the person has already survived to that age. Table 2 below presents life expectancy figures at age 65 for different base years.

Table 2

<table>
<thead>
<tr>
<th></th>
<th>2012 Period</th>
<th>2012 Cohort</th>
<th>2037 Period</th>
<th>2037 Cohort</th>
<th>2062 Period</th>
<th>2062 Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>18.3</td>
<td>21.2</td>
<td>22.3</td>
<td>24.1</td>
<td>24.9</td>
<td>27.0</td>
</tr>
<tr>
<td>Females</td>
<td>20.7</td>
<td>23.9</td>
<td>24.7</td>
<td>26.7</td>
<td>27.2</td>
<td>29.5</td>
</tr>
</tbody>
</table>

Source: ONS

Table 2 shows that:

- At age 65 period life expectancy is 83 years for males and 86 years for females.
- At age 65 cohort life expectancy is 86 years for males and 89 years for females.

The effect of using cohort life expectancy for people at age 65 is to add about three years to their period of life expectancy.
Even though the ONS believes that cohort life expectancy is the better measure of how long a person of a given age will live, many investment intermediaries, advisers and research agencies use the lower measure - period life expectancy, in their calculations of how long people live. **Investment intermediaries and advisers should work off cohort life expectancy.** From here on in this chapter will focus only on cohort life expectancy.

**Survival probability**

Life expectancy points us to the average, but survival probability tells us about the chances of living to a certain age. It gives us more granular information about how long consumers might need their DC wealth to last.

Table 3 presents the survival probability of men at age 65, and Table 4 presents survival probability of women at age 65. Looking at both tables together and at the year 2015:

- Three quarters (73%) of all men aged 65 and four fifths (81%) of all women aged 65 are expected to live until the age of 80.
- More than one half (58%) of all men aged 65 and two thirds (68%) of all women are expected to live until the age of 85.
- One in four (23%) men and one in three (32%) women aged 65 today are expected to live until the age of 95.

**Table 3**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>To age 75</td>
<td></td>
<td>84%</td>
<td>85%</td>
<td>86%</td>
<td>87%</td>
<td>88%</td>
</tr>
<tr>
<td>To age 80</td>
<td></td>
<td>73%</td>
<td>74%</td>
<td>75%</td>
<td>77%</td>
<td>78%</td>
</tr>
<tr>
<td>To age 85</td>
<td></td>
<td>58%</td>
<td>59%</td>
<td>61%</td>
<td>63%</td>
<td>65%</td>
</tr>
<tr>
<td>To age 90</td>
<td></td>
<td>40%</td>
<td>42%</td>
<td>44%</td>
<td>46%</td>
<td>49%</td>
</tr>
<tr>
<td>To age 95</td>
<td></td>
<td>23%</td>
<td>25%</td>
<td>27%</td>
<td>30%</td>
<td>32%</td>
</tr>
<tr>
<td>To age 100</td>
<td></td>
<td>11%</td>
<td>12%</td>
<td>13%</td>
<td>15%</td>
<td>17%</td>
</tr>
</tbody>
</table>

*Source: ONS 2010 cohort data projections for the UK*

**Table 4**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>To age 75</td>
<td></td>
<td>89%</td>
<td>90%</td>
<td>91%</td>
<td>91%</td>
<td>92%</td>
</tr>
<tr>
<td>To age 80</td>
<td></td>
<td>81%</td>
<td>81%</td>
<td>83%</td>
<td>84%</td>
<td>84%</td>
</tr>
<tr>
<td>To age 85</td>
<td></td>
<td>68%</td>
<td>69%</td>
<td>71%</td>
<td>73%</td>
<td>74%</td>
</tr>
<tr>
<td>To age 90</td>
<td></td>
<td>52%</td>
<td>53%</td>
<td>55%</td>
<td>57%</td>
<td>59%</td>
</tr>
<tr>
<td>To age 95</td>
<td></td>
<td>32%</td>
<td>34%</td>
<td>36%</td>
<td>39%</td>
<td>41%</td>
</tr>
<tr>
<td>To age 100</td>
<td></td>
<td>15%</td>
<td>17%</td>
<td>19%</td>
<td>20%</td>
<td>23%</td>
</tr>
</tbody>
</table>

*Source: ONS 2010 cohort data projections for the UK*
1.7 Life expectancy and survival probability of couples aged 65

We have looked at men and women individually. Now we will consider the situation of a man and woman living as a household unit. Table 5 presents survival probability for couples where each partner is aged 65. Looking at the column for 2015 there is:

- A 19 in 20 (95%) chance that one or other of a couple will survive to age 80.
- A one in two (48%) chance that one or other of a couple will be alive at age 95.
- A one in four (24%) chance that one or other of a couple will be alive at age 100.
- The probability of one or other of a couple surviving to age 95 and 100 is increasing 3% every five years.

Table 5

<table>
<thead>
<tr>
<th>Survival probability – one or other of a couple both aged 65 surviving</th>
</tr>
</thead>
<tbody>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>To age 75</td>
</tr>
<tr>
<td>To age 80</td>
</tr>
<tr>
<td>To age 85</td>
</tr>
<tr>
<td>To age 90</td>
</tr>
<tr>
<td>To age 95</td>
</tr>
<tr>
<td>To age 100</td>
</tr>
</tbody>
</table>

Source: ONS 2010 cohort data projections for the UK and author’s own calculations.

The various survival probabilities of a man and woman living as a household unit are summarised in Chart 4 below.

Chart 4 – Survival probability of individuals and couples aged 65 in 2015

Notes: person 1 is 65 year old man, person 2 is 65 year old woman.

Source: ONS data for the UK and author’s own calculations.
To summarise, the probability of being alive at age 95 for males, females, and couples are:

<table>
<thead>
<tr>
<th></th>
<th>Chance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male surviving</td>
<td>1 in 4</td>
</tr>
<tr>
<td>Female surviving</td>
<td>1 in 3</td>
</tr>
<tr>
<td>One or other of a couple surviving</td>
<td>1 in 2</td>
</tr>
</tbody>
</table>

There is a massive challenge for couples with only DC wealth. One in two will need to stretch household financial resources to 30 years of retirement.

1.8 Should we focus most on individuals or couples?

When thinking about how long the money needs to last an important question is whether we have in mind the couple as the planning unit or the individual. Table 6 helps us answer this question by shedding light on marital status by age and gender.

Table 6

<table>
<thead>
<tr>
<th>Marital Status by Age and Gender for England and Wales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Single</td>
</tr>
<tr>
<td>Married/civil partnered</td>
</tr>
<tr>
<td>Separated</td>
</tr>
<tr>
<td>Divorced</td>
</tr>
<tr>
<td>Widowed</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Single</td>
</tr>
<tr>
<td>Married/civil partnered</td>
</tr>
<tr>
<td>Separated</td>
</tr>
<tr>
<td>Divorced</td>
</tr>
<tr>
<td>Widowed</td>
</tr>
</tbody>
</table>

Source: 2011 Census of England and Wales

Table 6 shows that:

- At ages 60-64 and 65-69 between two-thirds and three-quarters of people live as a couple, indicating ongoing sharing of financial resources.
- Only around 20% of people in the 60-64 and 65-69 age groups are single, separated or divorced, which indicate individual financial arrangements and life expectancy.
- Between ages 80 – 84 two thirds (65%) of all men and one-third (30%) of women are part of a couple.
- At age 85+ one-half (48%) of all men and one in eight (13%) women are part of a couple.
- The large drop in the proportion of women living in a couple is because the proportion of widowers rises.
Most widowers will have shared financial resources as a couple and so their current financial circumstances are the result of living as a couple and not as a single person.

As most people aged 65+ either live as a couple or are widowed but will have shared resources as a couple, there is a strong argument for couples being the key planning unit for lifetime investment planning scenarios. Couples need to share financial resources so long as both are alive, and stretch these financial resources so long as one is alive.

A concrete example of how a person widowed from a couple with DC wealth may have different financial resources to a similar single person with DC wealth is that most annuities sold are on a single life basis, so that when one or other of a couple die the life insurer will cease paying an income. This suggests that the widower has no income entitlement from a single life annuity written on the other person’s life. The chances are the widower is a woman but the annuity was on her male partner’s life. The income for life of the surviving person in the couple may all of a sudden drop significantly. Chart 5 present recent sales of single and joint life annuities. There may be other lump-sum or income related life policies that pay-out on the partner’s death, but we do not know that.

Chart 5 – Number of pension annuities sold by type of annuity

We have identified that couples are the key unit for planning and thinking about retirement, yet there is very little evidence that investment intermediaries base investment design on couples’ life expectancy.

To summarise, cohort life expectancy at age 65 for males, females, and couples are:

<table>
<thead>
<tr>
<th></th>
<th>Age of life expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>86</td>
</tr>
<tr>
<td>Female</td>
<td>89</td>
</tr>
<tr>
<td>couple</td>
<td>95</td>
</tr>
</tbody>
</table>
1.9 Should retirement solutions take into account an age other than life expectancy?

So far we have looked at two measures of life expectancy and suggested that cohort life expectancy is the right focus. We have also looked at marital status. This investigated the life expectancy of two main groups - individuals (single, separated, divorced) and couples. We have suggested that the life expectancy of couples is the right focus. We now look at whether we should consider an age other than, or in addition to, life expectancy when designing retirement solutions.

The chance of living to life expectancy is actually very low. Chart 6 illustrates the chance of a man age 65 dying in any particular year. This illustration uses ONS period life expectancy data. The spread would be wider if we use cohort life expectancy and carried the chart on to age 110. Chart 5 shows there is only a 1 in 20 (4.4%) chance of living to exact life expectancy!

Chart 6 – Most people do not have average lives

The logic of life expectancy tells us that living beyond life expectancy will be true for around 50% of the population, and also that living less than life expectancy will also be true for around 50% of the population. The width of this variability is greater than the variability we normally associate with a diversified investment portfolio, which suggests that life expectancy risk should be fundamental to the design of retirement solutions.

We want to increase our conviction that we are designing appropriate retirement solutions. Life expectancy measures are a reasonable starting place for investment design, but we could also look around for other metrics. Chart 5 shows that the most likely, or modal age, of dying is actually two or three years after the age of life expectancy. This is quite usual for distributions of age of death from age 65 onwards. This means that a second measure of average is often to be found two or three years after overall life expectancy and this is also important to encapsulate.

In summary, to increase our conviction that we are designing appropriate retirement solutions we should have in mind both age of life expectancy and the most likely age of dying. This will tend to lead us to design for two or three years beyond the usual measure of life expectancy.
1.9.1 Consumer preparedness for living longer

Are consumers expecting to live for as long as the data suggest they will? Qualitative research on consumers with DC wealth reveals there is significant awareness of longevity and the risks around it. Research by Aon Hewitt (2014) found that over half of respondents admitted to worrying, at least occasionally, about outliving their retirement savings. This concern was age-related, with the proportion of those indicating that they had not thought about outliving their retirement savings reducing from 40% among the under 35s to 7% of those over the age of 55 (Aon Hewitt, 2014).

Research commissioned by Just Retirement (2014) found that consumers aged 55+ with DC wealth were aware of the importance of life expectancy and the effect this can have on appropriate retirement income withdrawal. Chart 7 presents results to the question “how important a consideration is your and, if applicable your partner’s life expectancy (‘how long you expect to live’) when making a decision about what to do with your pension savings”

- 50% of respondents rated life expectancy 6 or 7 in importance.
- 75% of respondents rated life expectancy 5 or more out of 7 in importance.

Most respondents expect to live to around 83, but there was little evidence of what will be done should they live longer.

Chart 7 – Concern about longevity among members of DC schemes aged 55+

<table>
<thead>
<tr>
<th>Importance Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - NOT AT ALL IMPORTANT</td>
<td>2.2%</td>
</tr>
<tr>
<td>2</td>
<td>5.5%</td>
</tr>
<tr>
<td>3</td>
<td>3.9%</td>
</tr>
<tr>
<td>4</td>
<td>13.3%</td>
</tr>
<tr>
<td>5</td>
<td>26.5%</td>
</tr>
<tr>
<td>6</td>
<td>23.7%</td>
</tr>
<tr>
<td>7 - A KEY CONSIDERATION</td>
<td>14.9%</td>
</tr>
</tbody>
</table>

Source: Just Retirement

Research by Ignition House also found that most consumers had a reasonable awareness of average life expectancy. But when asked about survival probability, consumers tended to over-estimate how many people die between 65 and 70, and under-estimate how many live beyond 80. Chart 8 presents results to the question “say there are 10 men who are retiring at 65 in good health. How many of these will live to…?”
When told the actual statistics, which appear in the right hand panel of Chart 7, respondents were surprised how many people live beyond 80. Respondents found it surprising that they might be drawing on their pot for so long, and there was low awareness that they might be taking money out of the pot for longer than they put in.

Crawford and Tetlow (2012) draw on evidence from the UK Wealth and Assets Survey and find that men tend to underestimate their remaining lifespan by around two years and women by four years.

Overall then, qualitative research finds that consumers are aware and interested in longevity risk, and there is awareness that life expectancy is increasing generally. However, people tend to underestimate life expectancy by anything from two to seven years. There is little evidence of what will be done should they live longer than average life expectancy. People are generally not planning for their pensions to provide for them for how long experts believe they are going to live.

More attention could be paid by investment advisers, intermediaries, and the Guidance guarantee in communicating the considerable uncertainty around the length of life to consumers, and its impact on the potential sustainability of their retirement saving.

1.9.2 Healthy years in retirement, care and retirement solutions

Longer lives do not necessarily mean healthier retirements. According to ONS data, a 65 year old man with a remaining life expectancy of 18 years can expect the first 10 years to age 75 to be in generally good health. For a 65 year old woman, with life expectancy of 21 years, the first 12 years up to age 77 are expected to be spent in generally good health. The main types of limiting illness are musculo-skeletal, heart, blood pressure or blood circulation problems, and mental health.

There is little evidence that healthy life expectancy is increasing as fast as overall life expectancy, and yet the onset of relatively poor health does not necessarily correspond to a need for care. When people project ahead they spend more time thinking about the earlier healthy years in retirement, and so the desire for a particular level of flexibility of income is likely to be linked to health. With this thinking also comes a desire for income in those years. So, this indicates greater income with income flexibility for 10 or so years followed by need for a more stable income.

Chart 9 provides some evidence that people do desire spending larger sums early in retirement. The clue is that most annuities sold at retirement are level only. A level annuity provides the same, constant, annual income for life, for example £3,000 per year. Over time, as inflation leads prices to rise, the £3,000 is able to buy fewer goods in future than it can today. Buying a level annuity means we want to be able to do more with our money today than in the future. The other main type is an

---

**Chart 8 – Estimates of average longevity by members of DC schemes aged 60+**

<table>
<thead>
<tr>
<th>Age</th>
<th>Consumer response</th>
<th>Real data</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 years old</td>
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<td><img src="chart-2" alt="Chart Illustration" /></td>
</tr>
<tr>
<td>80 years old</td>
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<tr>
<td>90 years old</td>
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<tr>
<td>100 years old</td>
<td><img src="chart-7" alt="Chart Illustration" /></td>
<td><img src="chart-8" alt="Chart Illustration" /></td>
</tr>
</tbody>
</table>

Source: Ignition House

Real data for a 65 year old male retiring with a £10k pot:
- Age 70: 9 out of 10
- Age 80: 8 out of 10
- Age 90: 4 out of 10
- Age 100: 1 out of 10
escalating annuity. Here, the annual income for life starts lower, for example £2,200 per year, but each year will rise by, say, 3% to help us be able to buy the same in the future as we can today. The rise each year is designed to keep pace with rising prices. **Buying an escalating annuity means we want to be able to do no more with our money today than we can in the future.** Chart 9 shows that sales of level annuities are more than ten times sales of escalating annuities. Chapter 2 also provides evidence of consumer desire for flexible retirement income.

**Chart 9 – Number of pension annuities sold by type of annuity**

![Chart showing annuities sold by type](chart.png)

People expect to spend more in the early, healthier years of retirement and see pensions as a means of living for the knowables in life. For the unknowables there is emergency money. The two are kept broadly separate.

Often they felt that by the time they got into their late 80s or 90s they would not need much income. That time period was too far away to think about too deeply. If they reached old age the general belief was that they'd be taken care of by the state, their children, or not be in a fit state to care what happened to them. These presumptions are not entirely unfounded. Far more old people are looked after by family than are in long-term care.

**Care**

Today, family members provide the majority of informal care to the elderly (IPPR, 2014). Relatively few pay for long-term care. Many consumers appreciate the concept of care and have some grasp of the type of costs involved. But to them care is an if, not a when, question.

When we look ahead we can find some evidence that support from family members may reduce, and this may increase demand for paid care. The population ageing we have identified is partly a result of sustained low birth rates in the 1950s and 60s. In the short term these trends do not mean an increase in the proportion of old people who lack younger immediate family because those now attaining older ages include larger proportions who have had children, larger proportions not yet widowed, and smaller proportions who have never married. The proportion of elderly people who are divorced, and so may not have a partner to care for them, is small, but this proportion is increasing. Cohorts born since the mid-1950s have shown different patterns of family formation and dissolution, and the longer-term prospects for the familial support of old people are therefore likely to be less favourable. Starting in the 2020s, a larger proportion of people starting retirement will have no children or be divorced and this may increase demand on welfare services and care.
What do people say? Qualitative research commissioned by Just Retirement (2014) found that consumers generally thought there was little point worrying about care as no one knows if they will need it. Even among people with a current health condition that might be thought to focus their minds on the situation there seemed little sense of urgency or escalation in importance. This makes planning problematic, and often low priority. Only 10% of respondents stated that they were prepared for this type of eventuality later in life. Very few are doing any real planning, and where planning does take place, it is often very late in the day and after other considerations.

When asked “what would you do if you outlived your retirement savings”, about one half of people say they will release equity from their home. The laissez faire answer of more than one third of consumers is to rely on the state pension. Some expected an inheritance at some point.

There is no evidence that consumers plan to put money aside for possible care from their tax-free cash. The two most cited destinations for lump sums are general savings and specifically into an ISA (Just Retirement, 2014). Lump sums saved are generally earmarked for emergency savings – dealing with the unknowns, which might include the possibility of care, but not specifically for care.

DC wealth is not something people would turn to if they had a need for long term care. Overall, there is very little propensity to save for care or to earmark current savings for the purpose of care.

1.9.3 Should a link between cognitive, financial capability and age influence retirement solutions

This section discusses links between cognitive capability, financial capability, and age. Should the evidence influence the design of retirement solutions?

As people become older they achieve lower scores in cognitive ability tests. NEST (2014) refers to research from the US that shows cognitive ability peaks at a ge 53 and declines thereafter. By the time people get into their 80s, approximately 50% of the population suffer from a significant cognitive impairment. Dementia is reported to affect one in six people over 80 and one in three over 95 (Cazalet, 2014). Other evidence suggests cognitive capability starts to decline later.

Studies in cognitive ageing also reveal a link between cognitive and financial capability (Salthouse, 2010). Older people experience a decline in cognitive processes closely related to financial decision making. This seems to be the case when questions target sophisticated financial knowledge, basic financial knowledge and knowledge covering broader economic concepts (Lusardi, Mitchell, and Curto, 2012).

Financial literacy is reported to decline 1% to 2% each year after age 60, but the rate of decline does not steepen thereafter with advanced age (Finke, Howe, and Huston, 2011). Chart 10 reports average self-assessed confidence with financial literacy and actual, tested, financial literacy as age increases from 60 to 88.
So how should industry interpret this evidence?

One interpretation is that the very gradual reduction in financial capability that does not steepen with age is not important. There are very low base-line levels of financial capability across other age groups. **No one is suggesting that financial decisions of other age groups that also show low levels of financial capability should not be their own.** Also, many household decisions in the retirement phase concern household budgeting decisions that are relatively simple compared to decisions in the accumulation phase around compound rates of investment return, inflation, and investment diversification.

The other argument is that the reduction in financial capability with age is important. A decline in financial capability of between 1% and 2% each year after age 60 is sufficient to justify gradually switching people into long life products such as deferred annuities, immediate annuities or other forms of longevity hedged lifetime income in much the same way as the contributing stage of pension saving during the working years automatically and gradually de-risks members’ pension pots on a glide path as they approach retirement age.

Yet, this second argument concerning paternalism is not at all clear. There appears to be no policy that suggests a decline in financial capability of 20% over 20 years is a reason to take financial decision making on behalf of older people. Also, baseline financial capability is low across all ages, and if not careful we end-up inferring that virtually all financial decisions should be taken away from us regardless of our age. **At what point should retirement income decisions of older people not be their own?**

Overall, more discussion on the significance of the reduction in cognitive and financial capability with age needs to be had. There are important questions to tackle about consumers’ capacity to grasp the implications of a largely self-funded retirement and some of the heuristics and nudges that might prevail in later life to help out. However, at present the debate has the look of providers interpreting research findings in a way to justify what they want to do commercially.
Chapter 2: The wealth of consumers aged 55+ with DC wealth

Contents

2.1 What pension wealth data say about replacement income
2.2 Private pension wealth of men and women
2.3 DB and DC wealth in the accumulation phase
2.4 DC wealth in personal and occupational pensions
2.5 Wealth in the decumulation phase
2.6 Non-pension net financial wealth
2.7 What data on purchases of lifetime annuities say about DC wealth
2.8 Empirical evidence on consumers’ wealth in retirement
2.9 The broader picture of people’s financial behaviour who have DC wealth at retirement

Introduction

This chapter looks at the wealth circumstances of people at the point of retirement. We are interested in DC wealth and non-pension net financial wealth together because this provides a fuller picture of the financial resources people have available to fund their retirement. By financial wealth we mean the value of savings and investments. We are trying to answer the question ‘how much is there?’ Providers can design better retirement solutions for consumers if they know the quantum of DC and financial wealth.

Recommendations

1. Later in life many consumers will have nearly run out of DC wealth but they will still have a relatively large amount of non-pension financial wealth. Consumers in this position should be encouraged to top-up their DC wealth from this source and purchase an income for life.

2. To stop the build-up of excess non-pension financial wealth, people with DC wealth should be strongly encouraged to allocate some of their pension commencement tax-free cash for the sole purpose of boosting retirement income.

3. With any income drawdown solution consumers should be provided with an estimate of a sustainable income to drawdown and a level of confidence that the estimate will be correct.

4. If providers want to attract commercially supportable business they should be looking for consumers with median or better personal pension wealth and third quartile or better occupational wealth.

Summary

Consumers with high levels of DC wealth are much less likely to have DB wealth, while consumers with low levels of DC wealth are much more likely to have DB wealth. Where people have both, DC wealth is usually worth much less than DB wealth, so they are likely to think in terms of income for life from DB wealth, and flexibility of income from DC wealth. With DC wealth seen as a ‘bonus’, people with both are going to want something akin to a bank account to pull that money across into.

Average wealth in personal pensions is currently more than double average wealth in occupational DC pensions. This position will reverse, but not for several years.
Based on their DC wealth before tax-free cash is taken, we can identify three broad types of consumer:

1. Those with DC wealth below £30,000. The clearest solution for them seems to be a simple-to-access, flexible solution with many of the features of a bank account. The people in this group are at the first quartile of personal pension wealth or at the median level of occupational pension DC wealth.

2. Those with DC wealth between £30,000 and £60,000. The level of DC wealth is now too large for people to take tax efficiently as one or a small number of cash lump sums. The clearest commercially supportable solution seems to be an easy-to-use income drawdown solution. The fund remains invested and an income is drawn. The capital of the fund is gradually consumed. ‘Under the hood’ the solution has a good design, and it is easy to use for the consumer. The solution needs to try to grow the fund but not be too risky. Consumers have neither the appetite nor the capacity for that. The people in this group are at the median level of personal pension wealth or better, and at the third quartile of occupational DC wealth or better. This is likely to be the ‘bulk’ solution for most providers.

3. Those with DC wealth of more than £60,000. An extra solution for them might be to use cash flows received from the fund’s investments as income to drawdown while leaving the capital mostly or completely untouched. The people in this group are at the third quartile of personal pension wealth or better.

At retirement, non-pension financial wealth is worth as much as DC wealth. During retirement most people keep adding to it. This means that later in life many consumers may have little, if any, remaining DC wealth but relatively substantial non-pension financial wealth. By doing nothing with it people build-up excess non-pension financial wealth. Consumers in this position should be encouraged to top-up their DC wealth from this source and purchase an income for life.

One reason people have so much non-pension financial wealth is that their dislike of compulsory annuitisation led them both to save outside of a pension environment and take the full 25% tax-free cash from their pension. With compulsory annuitisation now gone, consumers should be strongly encouraged to hypothecate some tax-free cash for retirement income purposes.

In retirement more than half of people with DC wealth often have money left over at the end of the month. They leave this in their current account. Throughout retirement there is a strong desire to keep putting aside small amounts of money to grow the worth of ‘emergency’ money.

People value certainty and want to make sure their money in retirement does not run out, but research finds that many people with DC wealth close to retirement are not able to say what income they are likely to receive. Even if they are given a hypothetical lump sum they still do not know how long it might last. To help consumers understand what they can afford to spend in retirement, they should be provided with an estimate of a sustainable income to drawdown and a level of confidence that the estimate will be correct. This will not solve all the questions consumers have because many people do not expect to rely solely on DC wealth for income in retirement. DC wealth is one piece of the retirement income jigsaw.

**Two years after the onset of auto enrolment the proportion of women contributing to workplace pension schemes is significantly below that of men.** The disadvantage we see in women’s pension wealth is persisting even under auto enrolment. This disparity is a feature of the earnings threshold for auto enrolment being set at a level that omits many women who work few and flexible hours from pension scheme auto enrolment. Lowering the earnings threshold would bring more women into auto enrolment and lead to more contributions and pension wealth over the working lives of women, thus helping close the gender gap.
About the Wealth and Assets Survey

In this chapter we are going to look at what the Wealth and Assets Survey (WAS) tells us about pension and financial wealth around retirement. Around 20,000 households take part in the survey, which is designed to be representative of the population of Britain. The latest data - 2010 to 2012, are used here. WAS has only been running a short time and this means that individuals' wealth has not changed much over the survey's life. Because of this, researchers tend to use the data cross-sectionally, as this chapter does. Cross sections tell us about:

- Age related effects, eg lifecycle.
- Cohort effects, eg periods of high and low economic activity.

Of the two, by far the dominant influence is age related effects. Finally, we need to have in mind what WAS means by the following:

- ‘Household’ is the household head or Household Reference Person, who is normally the person with most wealth. One individual within the household is at the specified age.
- ‘Individual’ is an individual aged 16 and over, except under 18s in full-time education.

2.1 What pension wealth data say about replacement income

Looking back to the early 2000s when the Labour government convened a Pensions Commission to set out a plan to help people save into a workplace pension, the Commission set a ‘soft’ target that the median earner’s pension income should be around 60% of earnings at the point of retirement (Pensions Commission, 2005). So, in 2015, how are we doing relative to that? The Annual Survey of Hours and Earnings (2013) reports that median earnings for a 55-64 year old person in work is approximately £28,000 full-time equivalent. A 60% replacement income in retirement for this person will be £16,800.

We need to now build-up the pension components to reach this amount. £144 per week, or about £7,500 per annum, will come from the future flat rate Basic State Pension for an individual who has a full National Insurance contributory history and with no additional state pension.

This leaves us needing to find £9,300 (£16,800 - £7,500) to be met from private pension wealth for our median earner. Taking the example of a level annuity that yields 5% income per year, we will need a pension lump sum of £9,300 ÷ 0.05 = £186,000. According to WAS, for the 55-64 age group, £186,000 corresponds to the 55th percentile of household private pension wealth. The 50th percentile for the 55-64 age group is £143,000. So, the 55th percentile 55-64 year old household is on target to meet the 60% replacement income objective set by Pensions Commission, but the 50th percentile, or median, household is not. This is illustrated in Chart 1. The upper half of Chart 1 shows the percentile distribution of household private pension wealth for the 55-64 age group. Private pension wealth includes DB and DC together. The lower half of Chart 1 shows how the replacement income is built-up bit-by-bit.

---

1 We are assuming the individuals close to retirement with middle income are those with middle private pension wealth.
While the Pensions Commission target broadly works for people in the middle, research by NEST (2014) shows that as income received from work falls the level of replacement income in retirement rises, and as income received from work rises the level of replacement income in retirement falls. So, we should not place too much reliance on replacement income as the yardstick to measure adequacy of pension income. There are other important measures to consider.

2.2 Private pension wealth of men and women

We now turn to the private pension wealth of men and women. This shows a consolidated picture of both DB and DC wealth.
Table 1 shows that:

- At age 55-64 the gap between men and women’s pension wealth, £83,400 and £66,100 respectively, is large of itself but relatively narrow compared to adjacent age groups. **At the median, men’s pension wealth is 20% higher than women’s, and 15% higher at the third quartile.**
- **At age 65+ the gap between men and women’s pension wealth widens.** This is because the State Pension Age is lower for women than for men, leading women to retire earlier and so have less private pension wealth remaining at age 65.

### 2.3 DB and DC wealth in the accumulation phase

We have looked at the overall private pension wealth of men and women. Now we are going to split private pension wealth into DB and DC wealth and look at this during the pre-retirement phase of pension saving. This will tell us about the level of pension related resources that are likely available during retirement beyond that is received from the State Basic Pension.

Four-fifths of all households will accumulate private pension wealth at some point during their working lives. Some have accumulated only DB wealth, others only DC wealth, and **it is not unusual for people in older age groups to have both DB wealth and DC wealth.** Overall, DC wealth is worth on average about one-quarter of DB wealth.

Consumers with high levels of DC wealth are much less likely to have DB wealth, while consumers with low levels of DC wealth are much more likely to have DB wealth (Pensions Policy Institute, 2014). **Three quarters of consumers with DC wealth less than £10,000 also have some DB wealth.** Where there is both, the DC pension pot is usually worth much less. Many consumers with both are likely to view the smaller DC pot as more of a ‘bonus’ and so pay less attention to it. Consumers are more likely to see this as something akin to a bank account.

Auto enrolment is leading to rising numbers of people across all age groups with DC wealth. This means that **young adults are no more likely to have DC wealth than those close to retirement,** although **their DC wealth is more likely to constitute all of their pension wealth.**

Table 2 shows the split of pension wealth into DB wealth and DC wealth close to retirement.
Table 2 – DB and DC wealth in accumulation held by individuals with wealth in pensions (Great Britain, 2010/12)

<table>
<thead>
<tr>
<th>Age</th>
<th>1st Quartile</th>
<th>Median</th>
<th>3rd Quartile</th>
<th>1st Quartile</th>
<th>Median</th>
<th>3rd Quartile</th>
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<td>29,100</td>
<td>100,000</td>
<td>16300</td>
<td>48,600</td>
<td>133,100</td>
</tr>
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</table>

Source: Wealth and Assets Survey, Office for National Statistics

Table 2 shows that:

- **At age 55-64 median DB wealth is four times more than DC wealth**, at £118,000 and £25,000 respectively. **The picture is similar for individuals at the third quartile**, DB wealth is £254,400 and DC wealth is £62,000.

- **At age 65+ median DB wealth is two times more than DC wealth**, at £66,700 and £29,100 respectively. This gap narrows for individuals at the third quartile, when DB wealth is £175,100, and DC wealth is £100,000. The narrowing gap between DB and DC wealth for people aged 65+ is because people with large DB wealth retire earlier. Individuals with only DC wealth are more likely to be working.

Table 2 suggests that **DC wealth at the third quartile is too large to be taken tax efficiently as one or a small number of cash lump sums so these are potential investment drawdown customers**.

Very few people with DB wealth reject the secure income and ask instead for a cash lump sum at retirement. Advisers report that this does happen occasionally in situations where a couple, each with large DB wealth, wish one pot to be converted to cash so they can have greater flexibility of income.

### 2.4 DC wealth in personal and occupational pensions

We are now going to focus exclusively on DC wealth. This is divided into personal pension DC wealth and occupational pension DC wealth.
Table 3 – Personal pension and occupational DC pension wealth held by individuals with wealth in pensions (Great Britain, 2010/12)

<table>
<thead>
<tr>
<th>Age</th>
<th>1st Quartile</th>
<th>Median</th>
<th>3rd Quartile</th>
<th>1st Quartile</th>
<th>Median</th>
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<td></td>
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<td>30,000</td>
<td>7,000</td>
<td>18,200</td>
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<td>38,700</td>
<td>81,500</td>
<td>7,000</td>
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<td>11,000</td>
<td>30,200</td>
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<td>26,800</td>
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<td>100,000</td>
<td>15,000</td>
<td>25,000</td>
<td>120,000</td>
<td>20,000</td>
<td>70,000</td>
<td>100,000</td>
</tr>
</tbody>
</table>

**Personal pensions**

**Occupational DC pensions**

45–54 | 5,100 | 18,000 | 50,000 | 3,500 | 11,000 | 29,800 | 4,700 | 15,000 | 40,600 |
<table>
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</tr>
</thead>
<tbody>
<tr>
<td>55–64</td>
<td>6,000</td>
<td>20,000</td>
<td>53,800</td>
<td>3,000</td>
<td>8,000</td>
<td>22,000</td>
<td>4,400</td>
<td>14,500</td>
<td>45,000</td>
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<tr>
<td>65+</td>
<td>13,000</td>
<td>23,200</td>
<td>78,000</td>
<td>6,000</td>
<td>15,000</td>
<td>30,000</td>
<td>6,000</td>
<td>18,200</td>
<td>40,000</td>
</tr>
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</table>

Personal pensions include stakeholder and self invested personal pensions, held on a group or individual basis.

Source: Wealth and Assets Survey, Office for National Statistics

For personal pension wealth Table 3 shows that:

- At age 55-64 median wealth is £30,200, split £38,700 for men and £19,500 for women, third quartile wealth is £68,700, split £81,500 for men and £45,400 for women.
- At age 65+ median wealth is £70,000 and third quartile wealth is £100,000. We should be mindful that this age group constitutes a very small sample.

Overall, the level of personal pension wealth at the median is likely to support some form of simple income drawdown product. The level of personal pension wealth at the third quartile is likely to support a more sophisticated income drawdown product, perhaps one that invests for yield, with the yield providing the income to drawdown.

For occupational pension wealth Table 3 shows that:

- At age 55-64 median wealth is £14,500, split £20,000 for men and £8,000 for women, third quartile wealth is £45,000, split £53,800 for men and £22,000 for women.
- At age 65+ median wealth is £18,200 and third quartile wealth is £40,000. We should be mindful again that this is based on a very small sample.

The level of occupational pension wealth at the median suggests that the most commercially supportable solution is something akin to a bank account where customers can drawdown a small number of lump sums. The level of occupational pension wealth at the third quartile or better, may warrant a simple income drawdown product.

We have found that consumers’ wealth in personal pensions is significantly more than in occupational DC pensions.

In the years ahead this will gradually change. To some extent it already is visible because DC wealth across the 44-54 year age group is similar in personal pensions and occupational DC pensions. The impact of auto enrolment will mean that in the future the most commercially valuable customers will have occupational DC pension wealth.
2.5 Wealth in the decumulation phase

Having reported on the accumulation of pension savings, we now look at the value of pension pots when consumers are drawing an income. Table 4 presents pensions in payment for individuals aged 55+. Once again, DB and DC wealth are consolidated.

**Table 4 – Decumulation: Great Britain, 2010/12**

<table>
<thead>
<tr>
<th>Age</th>
<th>% with 1st Quartile</th>
<th>Median</th>
<th>3rd Quartile</th>
</tr>
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<tbody>
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<td>49</td>
<td>49,300</td>
<td>128,000</td>
</tr>
<tr>
<td>70-74</td>
<td>51</td>
<td>32,100</td>
<td>86,800</td>
</tr>
<tr>
<td>75+</td>
<td>51</td>
<td>15,200</td>
<td>42,500</td>
</tr>
</tbody>
</table>

Pension in payment wealth comprises private pensions from which individuals were receiving an income (including spouse pensions).

Source: Wealth and Assets Survey, Office for National Statistics

**Proportion of people with pension wealth in payment**

The left half of Table 4 shows the proportion of people with wealth in payment.

Together, three quarters of men and one half of women have some private pension wealth that they draw on in their lifetime.

77% of men will draw on private pension wealth in their life time. The 60-64 age group is when 30% of men (51% - 21%) start to draw a retirement income from their private pension wealth. By age 64, two-thirds of men (51% ÷ 77%) are drawing a retirement income from private pension wealth. This suggests significant demand for retiring earlier than State Pension Age. To summarise, men retire early. At State Pension Age almost all men who have private pension wealth that they draw on in their lifetime are drawing on them.

51% of women draw on private pension wealth in their life time. The 60-64 age group is when 29% (44% - 15%) of women start to draw a retirement income from their private pension wealth. By age 64, 86% (44% ÷ 51%) of women are drawing a retirement income from private pension wealth.

Overall, there is almost no demand for delaying taking retirement income.

**Amount of pension wealth in payment**

The left half of Table 4 shows the amount of private pension wealth in payment. This shows that:

- At age 60-64 median private pension wealth in payment is £168,300. This is close to the Pension Commission’s 60% target replacement income for the median earner that required a lump sum of £186,000. This was shown in Chart 1 of the current chapter.
- At age 55-64 third quartile wealth for pensions in payment is £379,000.
- At age 65-69 third quartile wealth for pensions in payment is £288,500.

The data above show the relatively good fortune of people already drawing a retirement income. These amounts are very different to what was shown earlier for DC wealth.
2.6 **Non-pension net financial wealth**

Data on net financial wealth tells us about non-pension liquid financial wealth. This may be savings, investments, inheritances, and tax-free cash from crystallisation of a DC pension pot. This gives an indication of the level of other financial resources available during retirement beyond that which is received through private pension income.

Chart 3 illustrates the complete percentile distribution of household net financial wealth for the whole 2010/12 WAS sample for all age groups.

**Chart 3 – Household net financial wealth, percentile distribution, 2010/12**

<table>
<thead>
<tr>
<th>Percentile</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>25&lt;sup&gt;th&lt;/sup&gt;</td>
<td>£0</td>
</tr>
<tr>
<td>50&lt;sup&gt;th&lt;/sup&gt;</td>
<td>£5,900</td>
</tr>
<tr>
<td>75&lt;sup&gt;th&lt;/sup&gt;</td>
<td>£38,500</td>
</tr>
<tr>
<td>95&lt;sup&gt;th&lt;/sup&gt;</td>
<td>£214,000</td>
</tr>
</tbody>
</table>

Chart 3 shows that net financial wealth at the 25<sup>th</sup> percentile for all age groups is £0, about £6,000 at the median, and £38,500 at the third quartile. We can compare these amounts to the net financial wealth of people at retirement to see what wealth they have. This is shown in Table 6.
Table 5 reports that:

At age 55-64 net financial wealth at the 25\textsuperscript{th} percentile is £0, at the median it is between £12,500 and £25,000, and at the third quartile (75\textsuperscript{th} percentile) or better between £50,000 and £100,000.

At age 65+ net financial wealth at the 25\textsuperscript{th} percentile is between £500 and £5,000, at the median between £12,500 and £25,000, and at the third quartile (75\textsuperscript{th} percentile) or better between £50,000 and £100,000.

One in five households aged 55+ have net financial wealth of £100,000 or more.

Overall, households close to and at retirement have greater net financial wealth than the population as a whole, but we do not know whether this is due to having saved for longer, having received an inheritance, or from recently having taken a pension commencement lump sum.

Net financial wealth does not fall in retirement. At the 40\textsuperscript{th} percentile or better non-pension financial wealth stays roughly the same. Below the 40\textsuperscript{th} percentile, non-pension financial wealth increases across the 55-64 and 65+ age groups. Non-pension financial wealth seems to be set-aside and not spent - it is for unforeseen circumstances. As people age they may become averse to spending their non-pension financial wealth, just in case they later regret doing so, so it will continue to sit unused.

Non-pension financial wealth at the median is about the same as DC wealth at the median, and non-pension financial wealth at the third quartile is about the same as DC wealth at the third quartile. We are saying then, that a typical household with DC wealth will have about the same amount saved in non-pension form as they do in a pension form.

The level of net financial wealth suggests that households close to and at retirement have the ability to give themselves income flexibility but this is not how many appear to behave. People are not using financial wealth outside of pensions to fund retirement income.

In retirement, people are conservative and cautious with their money. Unless they can be encouraged to use a portion of their non-pension financial wealth to support income in retirement they may underspend from a whole-of-life perspective.
2.7 What data on purchases of lifetime annuities say about DC wealth

As a robustness check of our private pension wealth estimates from WAS, Table 6 shows recent annuity purchase data from the Association of British Insurers. This provides information about DC wealth from a different source. Table 5 suggests that in 2014:

- The median pension annuity purchased was approximately £20,000. If we add back the tax-free cash this suggests median DC wealth of £25,000.
- The third quartile pension annuity purchased was about £48,000. If we add back the tax-free cash this suggests median DC wealth of £60,000.

These implied DC wealth estimates are between the values for DC wealth held in personal pensions and in occupational DC pensions, and this lends confidence to the accuracy of the wealth figures presented throughout the chapter.

Table 6

<table>
<thead>
<tr>
<th>Pension annuities sold by size of fund</th>
<th>2012</th>
<th></th>
<th>2013</th>
<th></th>
<th>Q1 - Q3 2014</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentile</td>
<td>Number</td>
<td>Percentile</td>
<td>Number</td>
<td>Percentile</td>
</tr>
<tr>
<td>Less than £20,000</td>
<td>209,383</td>
<td>51%</td>
<td>174,273</td>
<td>49%</td>
<td>74,033</td>
<td>46%</td>
</tr>
<tr>
<td>£20,000 - £49,999</td>
<td>123,434</td>
<td>81%</td>
<td>105,488</td>
<td>79%</td>
<td>50,544</td>
<td>78%</td>
</tr>
<tr>
<td>£50,000 - £89,999</td>
<td>47,556</td>
<td>92%</td>
<td>43,463</td>
<td>92%</td>
<td>21,345</td>
<td>91%</td>
</tr>
<tr>
<td>£90,000 and above</td>
<td>31,228</td>
<td>100%</td>
<td>29,967</td>
<td>100%</td>
<td>14,800</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: ABI

Chart 4 – Nominal pension annuity purchase value, 2003-2012

Note: Point estimates of the median purchase value assume uniform distribution of pots within value categories.
2.8 Empirical evidence on consumers’ wealth in retirement

Qualitative research reports that many do not expect to rely solely on DC wealth for income in retirement. DC wealth is one piece in the jigsaw that constitutes potential retirement income. It is partly because of this complexity that many consumers are unsure whether they have saved enough for retirement. Research commissioned on behalf of Aon Hewitt (2014) suggests that as much as the industry might like to have a ‘one-size fits all’ solution, the search for one solution for all is likely to be a fruitless one.

Research by Ignition House (2014b) with people who have DC wealth finds that most respondents had more than one pension arrangement. In many instances the DC pot did not need to deliver a secure income as basic needs have been met from alternative sources. Chart 5 reports responses to the questions “What pension savings do you have?” and “What savings and investments do you have?”

Chart 5 – What savings are held and where

Source: Ignition House (2014)

Property

Few respondents close to retirement have debts or loans, and most have paid of their mortgages or have only a small amount outstanding. One use of tax-free cash was to pay off any remaining debt. Very few respondents worried about paying their mortgage when they came to retire. A quite different cohort with significant outstanding housing debt may be approaching retirement from about 2025. Aon Hewitt (2014) finds that 9% of respondents expected to receive income from buy-to-let property, while Ignition House (2014b) puts this proportion at 25%.

Inheritance

Inheritance did not feature much in respondents’ own retirement plans, and respondents were keen to pass a portion of inherited wealth to the next generation. Many saw the asset value of any inherited property as something to pass on while inherited liquid financial assets were something that could be used to boost pension savings or keep as non-pension financial wealth. About one-third of basic rate tax payers and two-thirds of higher rate tax payers expect to receive an inheritance (Ignition House, 2014b). Chart 6 reports responses to the question “Do you expect to pass on an inheritance to your children/ grandchildren?”
Chart 6 – Desire to leave a legacy

Source: Ignition House (2014)

Downsizing

Downsizing is the fall-back option for those who might need to top up pension income. Aon Hewitt (2014) finds that one in five respondents expect to downsize but few outside the south east of the country had considered the practicalities of this option in any detail and were not really aware of how much they could release. Those that had already downsized reported that this had not worked out to be as much as they expected – typically releasing £20-£50k.

2.9 The broader picture of people’s financial behaviour who have DC wealth at retirement

Table 7 looks at the wider circumstances of people with DC wealth from WAS. In 70% of months people with DC wealth aged 65+ say their income meets the cost of everyday outgoings. 60% often have money left over at the end of the month and this is left in their current account.

85% of people with DC wealth have a strong desire to put money aside for unforeseen circumstances even in retirement, and one half of people aged 65+ expect to save money during the next two years. 80% of people aged 65+ have not touched their ISAs for the past two years. Most people who hold ISAs have cash ISA’s and just 8% of people aged 55+ hold financial wealth in investment funds.

Research by Ignition House (2014) found that the figure people give for the income they require tends to over-estimate what is needed for ‘essential spend’. This may be because people tend to project forward their normal lifestyle from the income they have from work rather than project forward the lifestyle they are likely to have in retirement. Respondents were often pleased to find that essential spend was not as high, that they will have some income left each month, and that they can leave some of their DC wealth invested.

80% of people with DC wealth age 55+ would rather be safe with saving even if investing in higher risk investments have the potential for better outcomes. The reason people say they are saving is that they are thinking of their income in retirement, and the principal aim of saving is to meet unexpected circumstances, followed by holidays and leisure.
Overall, most people aged 55+ who have DC wealth are thinking ahead, saving for retirement, but doing so using safe investments and not particularly interested in moderate to high levels of investment risk. 70% of people with DC wealth age 55+ strongly disagree with the statement that they tend to live for today and let tomorrow take care of itself. This conservative approach to saving and investing is reflected across quantitative and qualitative research.

Table 7

<table>
<thead>
<tr>
<th>Typology of individuals with some amount of DC wealth: Great Britain, 2010/12</th>
<th>Age 55-64</th>
<th>Age 65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>62% male</td>
<td>70% male</td>
</tr>
<tr>
<td></td>
<td>38% female</td>
<td>30% female</td>
</tr>
<tr>
<td>Housing tenure</td>
<td>53% own outright</td>
<td>80% own outright</td>
</tr>
<tr>
<td></td>
<td>38% own with mortgage</td>
<td>10% own with mortgage</td>
</tr>
<tr>
<td>Have an ISA</td>
<td>56%</td>
<td>60%</td>
</tr>
<tr>
<td>Not drawn on ISA in past two years</td>
<td>77%</td>
<td>80%</td>
</tr>
<tr>
<td>Have investment bonds</td>
<td>15%</td>
<td>20%</td>
</tr>
<tr>
<td>Have unit or investment trusts</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>Own other property or land</td>
<td>15%</td>
<td>11%</td>
</tr>
<tr>
<td>Annual income from savings and investments</td>
<td>86% £0 - £999</td>
<td>81% £0 - £999</td>
</tr>
<tr>
<td></td>
<td>14% £1,000 or more</td>
<td>19% £1,000 or more</td>
</tr>
<tr>
<td>Stay up to date with economic and financial indicators</td>
<td>38%</td>
<td>34%</td>
</tr>
<tr>
<td>Do not follow with economic and financial indicators</td>
<td>28%</td>
<td>29%</td>
</tr>
</tbody>
</table>

*Source: Wealth and Assets Survey, Office for National Statistics*
Chapter 3:
What opportunity and challenge is there for the market and for new products and services?

Contents
This chapter's divided into three parts

A. Regulation
3.1 Changes in regulation
3.2 Unknowns arising from regulation

B. Opportunity for providers to serve consumers
3.3 New choices for consumers aged 55+ with DC wealth and their tax position
3.4 Most consumers will not buy an annuity in their 60s with three-quarters of their DC wealth
3.5 Could annuities be right later in life?
3.6 Is there a case for auto-purchasing annuities on behalf of consumers later in life?
3.7 The propensity of consumers aged 55+ with DC wealth to take investment risk
3.8 Concerns that weigh on consumers’ minds when they draw on their DC wealth
3.9 A long life investment account
   3.9.1 Evidence of income drawdown by consumers pre-Budget 2014
   3.9.2 Setting the mix of flexibility of income and steady, regular income

C. Opportunity for providers to serve other providers
3.9.3 Provider-to-provider business

Carry forward from Chapter 1 and Chapter 2
Chapter 1 suggested that providers need to know an end date to build retirement solutions around. We suggested age 88 for men and age 90 for women because this captures the mean and mode of life expectancy. But we also know that people at age 65 underestimate their life expectancy by several years. Not thinking they will live as long as they will, some consumers are likely to spend their DC wealth faster. Providers should communicate that risk to consumers. We know from survival probabilities that men who live to age 88 and women who live to age 90 may carry on living for many more years. Securing an income for life when they reach those ages and when DC wealth is low makes sense. The investment problem for providers then becomes managing DC wealth to age 88, and securing an income for life thereafter. Providers are going to need to design a sustainable income drawdown that retains enough DC wealth to purchase an income for life at age 88 or 90.

Chapter 2 suggested a framework based around three broad groups of consumers with different DC wealth at retirement. The first group has less than £30k, the second £30k to £60k, and the third more than £60k.

For the first group the clearest commercially supportable solution is something akin to a bank account. This group may run out of DC wealth in their life time but because their DC wealth is low we have good reason to think that there may be some DB wealth. Pulling money into something similar to a bank account means taking pension savings out of a pension environment and putting it into a retail environment

For the second group a commercially supportable solution is an income drawdown product that remains invested. The provider pays a regular income to the consumer from the cash flows and the capital of the fund. The provider will suggest a sustainable income to drawdown until age 88, keeping
enough left over to secure an income for life at age 88. If DC wealth runs out before then consumers should be encouraged to secure an income from their non-pension financial wealth. We have good reason to think that later in life people have excess private wealth – although they are reluctant to use it.

The third group of consumers has more DC wealth. The investment drawdown solution can focus on paying an income from the cash flows received while consuming as little capital of the fund as possible. This will mean more of the capital stays intact, so there is less risk of it running out before age 88. If this does happen, consumers should once again be encouraged to secure an income from their non-pension financial wealth.

Weaved through all of this is complexity. There is complexity in the fact that hardly anyone will live to exact life expectancy, and there is complexity in the amounts and allocation of wealth people have. There is highly unlikely to be a ‘one size fits all’ solution, and our three groups above probably represent a minimum number of groups while providing an evidence-based and practically relevant starting point.

Introduction

This Chapter takes the framework above and develops it further. We are trying to grow our conviction that the solutions we have started to talk about are right for consumers. We now want to start filling in some of the gaps in that knowledge so we better understand how we should structure the solutions and invest the money. By giving our framework more structure, we will understand what to design, how and why.

In this Chapter we explore opportunities and challenges arising from a change in regulation. We try to understand what consumers are likely to want so we can start to develop a strong idea of the solutions that can serve them better. Finally, we work through opportunities for providers to serve other providers.

Recommendations

1. If providers particularly want to appeal to the interests of consumers with DC wealth around the third quartile or better, retirement solutions should build tax considerations and tax efficient structures into their design.

2. Providers are not going to know with any precision how consumers in retirement will actually balance flexibility of income with taking a steady, regular income. What consumers are currently saying and doing is quite different. Retirement solutions should build both scenarios into their design.

3. Providers are going to find significant consumer demand for a ‘safe’ retirement solution with no downside investment risk, and significant consumer demand for a lowish investment risk retirement solution where the certainty of outcome is high but less than 100%.

4. An income drawdown solution that’s invested to try to grow consumers money and make it last longer needs three moving parts. One part is cash flows from investments to meet expected regular income drawdown. A safe, liquid form is important here. A second part is investments that provide a tolerance for when larger, infrequent income is taken. If this was not in place there’d be occasional forced selling of higher risk investments at a time when values are at a historical low. Limited downside risk with income and some growth is important here. The third part provides good investment returns. This part is not expected to be needed for five or more years. Investment growth is important here. Together, at the portfolio level, there is lowish investment risk.
Summary

It is likely to take three years or so for the commercial consequences of new regulation to work itself through, from first movers and new entrants, through competitive responses and product improvements, to consumer preference, behaviour and demand. As well as the obvious opportunity to serve consumers there will also be the opportunity to serve other providers, especially smaller trust-based occupational DC schemes. This may involve DC bulk transfers, individual voluntary transfers, or playing a part on a panel of providers from which members aged 55+ will pick the provider who will serve them through retirement.

Now that they no longer have to buy an annuity in their 60s, people need alternatives that meet their preferences for taking a retirement income. Compulsory annuitisation gifted business to insurance companies but now there is every reason for fund managers and wealth managers to have these funds under management.

Annuities pooled longevity risk too soon in life, but they may still have a role later in life. People who live to age 88 or 90 may live for many more years, so securing an income for life when they reach those ages and when DC wealth is low makes sense. There is insufficient justification to auto-purchase annuities on their behalf, however providers can encourage consumers to consider annuity purchase around these ages, and even prepare the investment piece so that the money is there to do that, which we suggest they do via a ‘long life investment account’. By thinking in this way we are acting whole-of-life for consumers and that feels right. Fund managers and wealth managers should be relaxed about promoting annuities later in life because they are no longer making money out of most of the consumers.

Having to buy an annuity in their 60s prevented people from adopting the flexibility of income that we know there is demand for. But how strong is this demand? If anything, consumers say they want regular, steady income more than they want flexibility of income. Yet when it comes to actual behaviour, those already in income drawdown take larger blocks of income, infrequently – suggesting flexibility dominates. So overall, consumers say and do different things and in the end providers just are not going to know with any precision. That speaks to a need to design retirement solutions that allow both flexibility of income and taking a steady, regular income. We should be mindful that about one-third of consumers aged 55+ with DC wealth do not know how they prefer to consume their retirement savings - they have yet to give it thought or they have thought and cannot decide.

Consumer appetite for taking investment risk suggests two significant results. One is that consumers want a ‘safe’ retirement solution with no downside investment risk. In our framework this fits the first group of consumers. The second is that consumers want a lowish investment risk retirement solution, where certainty of investment outcome is high but less than 100%. In our framework this fits the second and third groups of consumers.

Consumers with DC wealth around the third quartile care a great deal about tax. Here, providers could offer a ‘long life investment account’. The consumer takes a part of tax-free cash - money that has never been taxed, and reinvests this into another DC pension plan. This becomes an affordable and tax efficient means of making sure the money does not run out while retaining flexibility of income and not preventing choices. By doing this we are creating a separate fund that’s going to hopefully grow until the consumer reaches age 88 or 90. The tax-free cash is not sitting in a bank account unused as it might otherwise. At age 88 or 90 the consumer can use the fund to secure an income for life. For the provider, there are more funds under management for longer because some of the tax-free cash is retained. The consumer’s main retirement savings are managed up to age 88 or 90, when the other tax-efficient fund can, if the consumer wishes, secure an income for life, so the provider knows how long the money in the main fund needs to last.

PART A - REGULATION
3.1 Changes in regulation

1. **Pension freedoms**: From April 2015 consumers aged 55+ with DC wealth will be able to draw their pension savings in a form they choose, in any proportion they choose, at any time they choose. Alongside these changes is the abolition of compulsory annuitisation.

2. **Removal of tax on DC wealth at death**: From April 2015 there is no longer any circumstances when a 55% tax is charged if a person wants to give their DC wealth to somebody else as a lump sum after they die. People can now pass their DC wealth on death to others tax free.

3. **Pot follows member**: Government is likely to require providers to cooperate in an industry-wide coalition to flag pots of DC wealth that meet particular criteria so that a person’s DC wealth will follow them when they change pension provider - which is usually on job change. So if a person has DC wealth with different providers these will be automatically transferred into one pot unless the person decides they should not.

4. **Relaxation of the design of annuity contracts**: HM Treasury has relaxed rules on the types of annuities that providers need to offer. Annuities no longer need to pay a constant income, so flexible income and lump sums are now possible to take. There is no longer a 10 year limit on guaranteed income, so guarantees of different lengths are now possible. The option of income increasing by 3% each year has been relaxed, and any annual escalation is now possible.

5. **Pension reinvesting**: Reinvesting, or recycling, will continue to be permitted up to a threshold – probably something around £10,000.

6. **Guidance guarantee**: A Guidance service will help people aged 55+ develop a coherent picture of their retirement situation, including:
   - State pension
   - Overall combined value of multiple pots
   - Tax position

The key message of the Guidance service is *it is not for us to say how you should draw on your retirement savings but here’s a few things you might like to know…*

The focus is on making a few big gains from a consumer perspective. People with DC wealth will be able to access free personalised Guidance from age 55, as will a beneficiary of an estate. More than one free guidance session can be had. Customers will complete a standard form so that the guidance service can serve them better. The Guidance will suggest:

- The level of tax the customer may pay. Tax is not at all well understood so this should be helpful.
- To shop around.
- That consolidating DC pension pots can be beneficial.

3.2 Unknowns arising from regulation

1. **General election**: A change in administration after the May 2015 General Election would change the priorities of Departments and Ministers. The Fabian Society - influential in the formation of Labour Party policy, is urging the party to scrap the pension freedoms should it
win the election. The Election falls so soon after the introduction of new freedoms in April 2015 that many providers may leave their final decisions until after the Election.

2. **Charge caps**: The application of limits on what providers can charge in pension drawdown may mean market power becomes concentrated among a few large scale providers.

3. **Re-interpretation of fiduciary duty**: Providing a payout function or negotiating individual member transfers to another provider when they choose to draw on their DC wealth will not be right for every trust-based occupational DC pension scheme. Schemes not wishing to adopt a payout function or negotiate transfers on a member-by-member basis may look to transfer out all membership at age 55. Operating the accumulation stage to age 55 would significantly change the nature of fiduciary duty.

4. **Cherry picking of pots**: Pension schemes are going to be vulnerable to the cherry picking of large pots accumulated by members over the age of 55. These pots are close to their lifetime high in value, and represent significant funds under management and revenue. There are opportunities for other providers to gather such pots without the need to have administered them over a long period of time.

5. **Regulator protecting consumers**: Consumers have struggled to achieve good deals in the current retirement product market, and the new freedoms widen the range of available products. Regulators may be concerned that this puts consumers into a vulnerable position and increases the risk of selecting poor products. Regulators may decide to push products together into categories with clear labelling that make differentiated and bespoke product from providers more difficult to support. Regulators may also investigate if they feel providers are starting to offer financial advisers significant rewards for persuading consumers to transfer their DC wealth to them.

**PART B - OPPORTUNITY FOR PROVIDERS TO SERVE CONSUMERS**

3.3 **New choices for consumers aged 55+ with DC wealth, and their tax position**

Consumers with DC wealth age 55+ now have a broader range of retirement options available than they previously had. They can now access their DC wealth by:

1. Transferring some or all of their DC wealth to another scheme. This is a within pension transfer so tax free.
2. Leave their DC wealth in the pension scheme it currently is in and decide later what to do with it. The tax depends on what the consumer does next.
3. Take their DC wealth as one or a series of lump sums in a way that suits them. The lump sums are taxed as income at the marginal rate.
4. Draw on their DC wealth by taking a regular income. This is taxed as income at the marginal rate.
5. Give their DC wealth to an insurance company in return for an income for life. This is taxed as income at the marginal rate.

3.4 **Most consumers will not buy an annuity in their 60s with three-quarters of their DC wealth**

People are pleased they no longer have to buy an annuity. The path of mandatory annuitisation for DC wealth was not what people wanted. Compulsory annuitisation gifted substantial business to insurance companies but experience from Australia suggests that in a free market demand for traditional pension annuities largely disappears.
Annuities probably pooled longevity risk too soon in life and in doing so prevented the flexibility that there is clearly considerable consumer demand for. The propensity for flexible income found its way into consumer behaviour by:

- The build-up of relatively substantial non-pension financial wealth.
- Their pulling across the full allowance of 25% of DC wealth tax-free from a pension environment to a retail environment.

Handing over three-quarters of all their DC wealth to an insurance company who gave 5% of that amount back to them each year as an annual income did not seem right to many consumers. They grasped that the numbers do not add-up until they have lived well into later life, and that made the purchase feels like a loss.

The propensity for flexible income found its way into consumer behaviour by:

- The build-up of relatively substantial non-pension financial wealth.
- Their pulling across the full allowance of 25% of DC wealth tax-free from a pension environment to a retail environment.

The arithmetic that tells consumers how much of their money they may see again after they have bought an annuity is called the internal rate of return (IRR). The IRR shows the value to the consumer from the annuity at different years after buying it and receiving an income. Table 1 reports the IRRs for a level annuity purchased by a 65 year old male consumer along with male survival probability. **Money back, where the investment return is zero, is 16 years after purchase at age 81. That’s about how long men think they are going to live. At life expectancy, age 86, the consumer has received 1.5% more than the money used to buy the annuity, or a 1.5% return on investment. That’s not attractive enough.**

Table 1

<table>
<thead>
<tr>
<th>Age</th>
<th>Internal Rate of Return</th>
<th>Survival probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>-30%</td>
<td>90%</td>
</tr>
<tr>
<td>80</td>
<td>-0.5%</td>
<td>73%</td>
</tr>
<tr>
<td>86</td>
<td>1.5%</td>
<td>50%</td>
</tr>
<tr>
<td>100</td>
<td>5%</td>
<td>11%</td>
</tr>
</tbody>
</table>

1 from Cazalet (2014), 2 from Chapter 1

Table 2 reports the IRRs for a 3% annual escalating annuity purchased by a 65 year old male consumer along with his survival probability. The idea is that the escalation reflects the likely path of rises in prices, or inflation, so the income of the consumer maintains its purchasing power. Money back is now at age 86, so at life expectancy the male consumer will have received no more than the money used to buy the annuity.

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2 The IRR is the discount rate that makes the net present value of all cashflows from a particular investment equal to zero.
The two tables above are summarised in chart 1 from Cazalet (2014).

Chart 1 – IRRs to age of death for 65 year old annuity buyer

Recent ABI data demonstrates consumers’ dislike of purchasing longevity risk in their 60s. Sales of lifetime annuities by savers in DC schemes are some 40% lower than the year before, so consumers are already thinking about alternatives beyond the traditional 25% of their pot as tax-free cash and three-quarters used to buy a lifetime annuity. There is every reason for fund managers and wealth managers to have these funds under management, but doing so means finding solutions that consumers want and need.
3.5 Could annuities be right later in life?

In Chapter 1 we said that we need an end date to manage income drawdown to for consumers who have only DC wealth. We suggested about age 88 for men and 90 for women. Chapter 1 also suggested that men alive at age 88 and women alive at age 90 may go on to live many more years.

In Chapter 2 we said that providers should suggest to consumers a sustainable income to drawdown to that end date. But managing to the end date is only part of the solution. The other part is to keep enough DC wealth back in case of living a lot longer. The sustainable income suggested by the provider needs to keep enough back so there is enough DC wealth left to secure an income for life. If DC wealth runs out before then consumers should be encouraged to secure an income from their non-pension financial wealth. We have good reason to think that later in life people have excess private wealth - they are just reluctant to use it. **By thinking in this way we are acting whole-of-life for consumers and that feels right.**

At age 88 or 90 the customers we are talking about are likely to have a low amount of DC wealth left, so many are no longer going to be profitable for fund managers and wealth managers to maintain as customers. The managers should welcome the transfer of that business. Consumers who buy an annuity ensure their money will last as long as they do. There will still be some customers for whom buying an annuity later in life will not be right:

- Some consumers will still have significant DC wealth.
- Some consumers will have significant DB wealth.
- There will be some customers who are so risk intolerant that they bought an annuity at the point of retirement, so they have already done it.
- There will be some customers who are so risk tolerant that annuitisation at any age is not right.
3.6  Is there a case for auto-purchasing annuities on behalf of consumers later in life?

If an annuity later in life is likely to be right, should we go one step further than encouraging consumers to consider buying and proactively auto-purchase annuities on their behalf along the lines of “You have several choices open to you, but if you do nothing we will ensure you receive a guaranteed, constant monthly income for the whole of your life from age 88”.

One way this could operate is to auto-purchase an annuity with all the remaining DC wealth in one go at age 88 or 90. A second way is to buy blocks of deferred annuities over time so that consumers who live to age 88 or 90 already have an income for life secured for them.

Auto-purchase proponents point to the growing acceptance of ‘do-nothing’ decisions in the accumulation phase of pension saving. By doing nothing consumers now join a workplace pension scheme, they start to make contributions, the employer contributes, the Government contributes, and 25% of the value of the fund can be taken tax-free. The consumer gains. The idea is to continue this. But many experts say that consuming retirement savings is not the same as saving and growing retirement savings.

In autumn 2014 a wide variety of experts with different backgrounds attended roundtable discussions on the topic of annuitisation in drawdown. The consensus of opinion was that there is insufficient rationale to do so in retirement. Reasons given included:

- There is no free money from the employer, the Government, or obvious tax efficiency.
- The life courses of people up to and in retirement are too various. People can no longer be presumed to have a single collective financial interest.
- Auto-purchase annuities which guarantee income may be right if people have no investment risk appetite, but we know they do, so we’d be in danger of under-risking people.
- A fund manager can invest the same lump sum for income drawdown and most consumers will obtain a better outcome. One reason for this is the capital requirements of insurance companies.

We should present an annuity as an option but not auto-purchase. We cannot presume that’s right for people.

We need a solution that helps consumers to have a pot of money left at age 88 or 90 so that if they want they can exchange it for an income for life. We address this in 3.9 Section below.

3.7  The propensity of consumers aged 55+ with DC wealth to take investment risk

Finding solutions that consumers want is going to involve knowing how much investment risk consumers want to take. This section focuses on how much investment risk do consumers who are close to retirement want to take?

One unambiguous finding from consumer research is overwhelming consumer demand for low risk, or ‘safe’, investments.

If you ask consumers aged 55+ with DC wealth to mentally trade-off investment return potential with investment risk taken, more than half say they want to take no investment risk. This seems to suggest at least some consumers needs are being met by the features of traditional annuities. It also suggests that some people will still want to buy annuities as soon as they stop working.
Fewer than a third of consumers aged 55+ with DC wealth say they are willing to take some risk, and for those who said yes to taking some risk, it seems that **what consumers have in mind when they hear the terms ‘some’, ‘medium’, and ‘middle’ risk, is a lowish chance of loss with some chance of modest gain**. Chart 3 illustrates this.

**Chart 3 – What research participants often mean when they say they are willing to take some risk**

![Chart 3](image_url)

The ends of the spectrum calibrate similarly but in between does not. By medium risk experts may think a long-run average volatility of 13%. The volatility consumers think of is half that.

In other words, **when the average consumer aged 55+ with DC wealth hears the term ‘medium risk’, they may actually mean lowish investment risk**.

When offering a simple trade-off of investment risk for potential investment outcome, there was most demand for a no investment risk product and some demand for a lowish investment risk product. This suggests that **some consumers are going to want to have their retirement savings safe and accessible like a bank account, which is our first group of consumers outlined in Chapter 2. It is unlikely to deliver the best outcome for a 30 year investment horizon but this appears to be one strand of consumer demand. Consumers with more DC wealth who want ‘no investment risk’ might also be offered a liquid, low charge, structured product with no downside risk – if one can be configured.**

Of course, when consumers actually choose a product they are likely to weigh several product features - price, cost, potential investment return, level of investment protection, among others. **Research has investigated how consumers trade-off more aspects of funds, such as investment risk, investment return, certainty of outcome, and costs and charges. Chart 4 illustrates these findings. In this more real setting there is more demand for taking some amount, a lowish amount, of risk. It seems that many savers are attracted to better potential investment outcomes and for this some uncertainty of outcome is willing to be tolerated within a product that offers good value for money.**
Chart 4 – What features are most desirable in a DC retirement product?
Rank of most valued (1) to least valued (4)

<table>
<thead>
<tr>
<th>Pension fund type</th>
<th>Typical DC</th>
<th>Balanced DC</th>
<th>Nominal guarantee (CPPI)</th>
<th>Cash</th>
</tr>
</thead>
</table>
| Overall then, research suggests that the retirement products savers would like to see is one with no downside investment risk and one with a lowish amount of investment risk, where the level of investment certainty is high but less than 100%.

Consumers who desire no investment risk may be attracted to a no downside risk product if it offers greater return potential than something more akin to a bank account. We can take this into the design of retirement solutions for consumers that more or less fit the first group in our framework.

We can take the appetite for lowish investment risk into the design of retirement solutions for consumers in the second and third groups in our framework.

3.8 Concerns that weigh on consumers' minds when they draw on their DC wealth

We should be able to design better retirement solutions if we know about any strong concerns that consumers have when they think of drawing on their DC wealth. Overcoming these concerns through good investment design should work to increase demand.

When asked about the considerations that weigh on their minds when they think of drawing on their DC wealth, consumers say that they are trying to strike a balance between ensuring they do not run out of money and their own happiness and enjoyment from choice and flexibility. Chart 5 shows that consumers want a secure income but they also want to enjoy the retirement they worked for, and that means having freedom to choose the what and when of consuming their savings.
Chart 5 – What are your main considerations when taking money from your pension fund?

Also at the front of people’s minds are tax implications, inflation rates, leaving behind a bequest, and thoughts about what happens to spouses and family after they die. Each of these is a concern for between a fifth and a third of consumers. Research by Ignition House (2014) reveals similar results.  

We can take-away from this a strong desire from consumers for a retirement solution that marries the concepts of:

- Ensuring the money does not run out - consumers want some certainty.
- Flexibility - consumers want to keep their choices open.
- Tax efficiency - consumers want to keep more of their money.

We are going to look at tax more closely because tax is a more advanced consideration for consumers, and the importance they are attaching to tax is quite meaningful.

Table 3 looks at how important tax considerations are for consumers with different amounts of DC wealth, along with some of the other neighbouring considerations from Chart 5. The size of DC wealth is a dominant factor influencing interest in tax efficient solutions. When research asks further questions about tax, more than a third of consumers are very interested in saving tax and one-half would value support to mitigate tax.

One reason why people with smaller pots appear to be less engaged with tax planning may be that we are looking at a household involving a couple with more than one pot. The smaller pension pot may be viewed as more of a ‘bonus’ and so less attention is paid to it. Within a couple the smaller DC pot is often the female’s, which helps to explain why tax is seemingly not as important to women as it is to men.
Table 3 – How important are the main considerations when taking money from your pension fund?

<table>
<thead>
<tr>
<th>DC Wealth of</th>
<th>£20,000 to £50,000</th>
<th>£51,000 to £100,000</th>
<th>More than £100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation rates</td>
<td>18</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Tax implications</td>
<td>24</td>
<td>35</td>
<td>45</td>
</tr>
<tr>
<td>Protecting my spouse</td>
<td>15</td>
<td>26</td>
<td>47</td>
</tr>
<tr>
<td>Following the advice of a professional</td>
<td>10</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Total level of engagement on the main considerations</td>
<td>67</td>
<td>93</td>
<td>130</td>
</tr>
</tbody>
</table>

Source: Just Retirement

The bottom row of Table 3 shows that pot size and interest in it are positively related. This speaks to the challenge industry and Government face trying to engage on any aspect of pensions with consumers who have small pots. **People with DC wealth below £20,000 just are not that interested.**

The right half of Table 3 concerns the consumers we identified in Chapter 2 as being close to the third quartile of DC wealth or better. This group cares about tax. **Investment intermediaries are likely to be able to reach-out to consumers with DC wealth at the third quartile more effectively if they design a tax efficient structure in which to hold and invest their DC wealth in retirement.**

One solution talked about among a part of the adviser community is a structure that works within the HMRC reinvestment, or ‘recycling’ allowance. The idea here is to use the allowance as a tax efficient retirement structure within which consumers keep their choices open have ensuring there is enough left at age 88 or 90 to buy an annuity and make sure the money does not run out. We will call this a long life investment account, and this is now explained.

### 3.9 A long life investment account

We will assume that consumers are going to take the full 25% tax-free cash on crystallisation of their DC wealth. When they are doing this **providers might suggest to them a tax efficient structure that gives them an incentive to reinvest a part of the tax-free cash with the purpose of buying an income for life, later in life.** We’d like to stop some of the tax-free cash from sitting in a bank account as non-pension financial wealth. The consumer takes a part of tax-free cash - money that has never been taxed, and reinvests this into another DC pension plan.

**Example 1**

At retirement a male consumer who is a basic rate (20%) taxpayer reinvests £5,000 of his tax free lump sum into a new DC pension plan for his wife who has no private pension wealth. The Government adds 20% more to it through tax relief. The fund is now worth £6,000. The fund is invested with low to moderate investment risk for a target long-run average 2.5% real (4.5% nominal) annual return.

At age 88 the fund will have grown to £17,300 from contributions of £5,000. A smallish upfront commitment to reinvest some tax-free cash has doubled the couple’s money. The average annual return has been 5.3%. The purpose of the fund is to purchase an income for life, later in life, say at
age 88. 100% of the fund is now used to purchase an income for life. The annual income received will remain below the personal allowance even once it is added to the Basic State Pension, so is tax-free.

The whole amount is tax efficient because the Government has added 20% more but not taxed the income. For a consumer with DC wealth of £40,000 the solution set out here will be 50% of tax-free cash, if DC wealth is £60,000, this will be 33% of tax-free cash, and where DC wealth is £80,000 this will be 25% of tax-free cash. The example could be reworked with any amount of initial contribution.

Benefits for consumers

This is an affordable and tax efficient means of helping the money not to run out while retaining flexibility of income and not preventing choices. It takes full advantage of free Government money and zero tax, and will pass in full tax-free to the beneficiary. The provider encourages the consumer to set aside some portion of tax-free cash to possibly buy an annuity later in life. The consumer can always change their mind. The tax-free cash does not sit in a bank account unused.

Benefits for providers

The strategy helps to quantitatively answer the question 'how long does my money need to last' because the consumer's main retirement savings are now be managed up to, say, age 88. A sustainable income drawdown path to age 88 can now be estimated given the consumer's DC wealth with a good degree of confidence. Suggesting to the consumer a sustainable income drawdown with a good degree of confidence will reduce reputational and regulatory risk. There are more funds under management for longer because some of the tax-free cash is retained by the investment intermediary.

Example 2

The second example is to re-invest income.

At retirement a male consumer who is a basic rate (20%) taxpayer takes £10,000 a year as income. The £10,000 is taxed at 20%, which leaves £8,000 after tax. £800 of this amount is reinvested into a new DC pension plan. The Government adds 20% more to it through tax relief. The fund is now worth £960. So far the consumer has been taxed at 20% and then had 20% tax relief added back on the contributions to the new pension plan. The position of the funds within the newly opened pension plan are therefore roughly tax neutral for the consumer. The fund is invested with low to moderate investment risk for a target long-run average 2.5% real (4.5% nominal) annual return. For the next five tax years the consumer takes £10,000 as income and the same £800 is reinvested and tax relief received. After this no more money is contributed to the fund. At age 88 the fund will have grown to £14,900 from contributions of £4,800. The average annual return has been 4.8%.

25% of the fund can be taken tax free and the remaining 75% is used to purchase an income for life. To the consumer this feels like paying an annual premium just as consumers do with household contents and buildings insurance. In the first example it felt like a single premium.

Both examples are within the current and expected HMRC pension reinvestment / recycling allowance. Because they are tax efficient, and this is a topic that consumers appear to have a relatively strong interest in, the solution is more likely to retain the funds and so help the consumer reach age 88 or 90 with enough left to purchase an income for life.
3.9.1  Evidence of income drawdown by consumers pre-Budget 2014

To help us understand what consumers with DC wealth are likely to do in income drawdown we can look at actual behaviour in the pre-budget drawdown market. Table 4 shows the proportion of DC wealth taken by customers in drawdown in 2013 and 2014. Most customers in this sample are in capped drawdown. The sample of consumers here are in the second and third groups of our framework.

Table 4

<table>
<thead>
<tr>
<th>Proportion of annual income entitlement taken</th>
<th>0%</th>
<th>1 – 20%</th>
<th>21 – 40%</th>
<th>41 – 60%</th>
<th>61 – 80%</th>
<th>81 – 100%</th>
<th>101 – 120%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of providers in sample</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>29</td>
<td>44</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>2014</td>
<td>18</td>
<td>41</td>
<td>9</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: Money Management

For the two years, 2013 and 2014, the distribution is highly bi-modal. Table 4 shows:

- **Significant demand for drawdown consumers to take no annual income** – more than 40% of consumers.

- **Significant demand from drawdown consumers to take nearly or as much income as was permitted annually under the old rules** – about 40% of consumers.

Putting these together this suggests a picture of many consumers not drawing on their DC wealth for a while then all of a sudden drawing a large amount.

We should be mindful of how small the drawdown market was, as shown in Chart 6, so the behaviour we see in Table 4 may not be representative of what the post Budget market may look like. However, overall the data suggest greater demand for infrequent but larger drawdowns and low demand for steady, regular income.
3.9.2 Setting the mix of flexibility of income and steady, regular income

When shown pictures of different retirement income patterns and asked how they intend to take an income in retirement from their DC wealth, research respondents see themselves taking a steady, regular income (left below) or a more flexible pattern of income that’s higher early and lower later (right below). There is almost no interest for an income profile which income rises towards the end of a person’s life in anticipation of additional needs arising from health or care costs.

But some people do not know what kind of income they want to take

Research commissioned by Just Retirement (2014) found that when people aged 55+ with DC wealth were asked how they are likely to, or are accessing, some or all of their pension? more than one-third felt unable to even summarise what they were intending. Aon Hewitt (2014) commissioned a survey of people of all ages with DC wealth and again found that nearly one in three were unsure what they would do with the portion of their pension fund that could not be accessed tax free. So about one-third of consumers aged 55+ with DC wealth just do not know, even though they are close to having to make a decision.
And some people desire steady, regular income

A significant amount of consumer research points to a strong desire for an income that lasts for life.

When consumers are asked what features they are looking for in a retirement product, a secure income that lasts for life is very important. Chart 8 shows this result.

Chart 8 – What people say they want

Desirable retirement income product features

<table>
<thead>
<tr>
<th>Feature</th>
<th>High Importance</th>
<th>Medium Importance</th>
<th>Low Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income that grows in line with inflation</td>
<td>84</td>
<td>22</td>
<td>3</td>
</tr>
<tr>
<td>Security of a guaranteed fixed income until you die</td>
<td>82</td>
<td>22</td>
<td>8</td>
</tr>
<tr>
<td>Protection from falls in the value of my fund due to stock market movements</td>
<td>82</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>Ability to access lump sums when I want</td>
<td>51</td>
<td>23</td>
<td>8</td>
</tr>
<tr>
<td>Ability to pass money onto my dependents</td>
<td>47</td>
<td>25</td>
<td>14</td>
</tr>
<tr>
<td>The potential to increase my income if stock markets increase</td>
<td>45</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>Regular updates from my pension provider to keep me aware of options</td>
<td>45</td>
<td>30</td>
<td>11</td>
</tr>
<tr>
<td>Flexibility to change to a different product</td>
<td>36</td>
<td>42</td>
<td>8</td>
</tr>
<tr>
<td>Ability to start top-up income payments when I want to</td>
<td>34</td>
<td>37</td>
<td>15</td>
</tr>
<tr>
<td>Ability to change the amount of income I get at different stages of my retirement</td>
<td>34</td>
<td>41</td>
<td>11</td>
</tr>
<tr>
<td>Security of a guaranteed, fixed income for a fixed time period (e.g. 5 years)</td>
<td>32</td>
<td>42</td>
<td>12</td>
</tr>
</tbody>
</table>

Chart 9 presents the findings.

An Aon Hewitt’s (2014) survey also found that 45% expressed a desire for steady, regular income, with only one in six attracted to the idea of income flexibility.

Chart 9 – Likely impact of budget changes on how pension fund will be used

Just Retirement’s (2014) research also reveals strong consumer interest for a steady, regular income. Chart 10 shows a strong desire to take more than the tax-free lump sum as cash and a regular income with the rest.
Research about what consumers say they will do reveals that they want a steady, regular income after the tax-free cash has been taken.

While other people desire for flexibility of income

Slightly less evidence points to a desire for flexibility of income. Four desirable characteristics of flexible income are shown in Chart 11 below.

Chart 11 – What people say they want
Ignition House (2014) found that the two most popular options for accessing DC wealth related to taking a flexible income. The 2 most popular choices were:

1. **Take the full tax-free cash allowance and access the three-quarters as and when**
2. **Take the money out tax efficiently to invest elsewhere.**

**Chart 12 – Options presented**

1. Do nothing and money passes to estate
2. Take TFC only, leave the rest invested
3. **Take TFC, access the remainder as needed**
4. Take TFC and take out a regular income stream
5. Take all the money, pay the tax, and invest elsewhere
6. **Take out money tax efficiently over time and invest elsewhere**
7. Take TFC, buy an annuity
8. Buy an annuity, no TFC

*Source: Ignition House (2014)*

So consumers aged 55+ with DC wealth also value flexibility of income.
PART B - OPPORTUNITY FOR PROVIDERS TO SERVE OTHER PROVIDERS

3.9.3 Provider-to-provider business

New freedom and choice as a result of the 2014 Budget means the following potentially significant provider-to-provider business:

1. **DC bulk transfers**: There are potential DC bulk transfers from trust-based occupational DC schemes that want to offload their DC membership from age 55 onwards either because they do not want to develop a pay-out function or take-on the administration of organising individual transfers on a member-by-member basis.

2. **Individual voluntary transfers**: A consumer may want to consolidate DC wealth held in more than one pot and develop a whole-of-life relationship with one single provider. A trust based occupational DC pension scheme or platform may put forward the provider to consumers as the only provider or one of a panel of providers accepting transfers. Consumers then decide whether to undertake a transfer. Alternatively, following a conversation with an adviser or visit to an online platform a consumer might want to transfer.

3. **Panel of providers**: Trustees of an occupational DC scheme not wanting to directly enter the drawdown market may identify other providers who can deliver the different solutions thought appropriate for members and so steer and guide members in what trustees have determined is a positive direction. The scheme would continue to provide a drawdown architecture within which there is high quality governance and value for money annual management charge. This may look like a panel of providers and may feature wealth managers, insurers, and master trusts. Solutions in this space are likely to be ones that are straightforward, in terms of governance and administration, for trust-based schemes to link to. The greatest commercial opportunity is likely to come from smaller occupational DC schemes.
Chapter 4:
Some investment modelling around the developing framework of the three groups of consumers

Contents
This chapter's divided into three parts

A. Furthering the framework for the three groups of consumers
4.1 Consumers in the first group with less than £30k
4.2 Consumers in the second and third groups with more than £30k
   4.2.1 Those with appetite for taking no investment risk
   4.2.2 Those with appetite for taking some investment risk
4.3 Overweighting high dividend equities
4.4 Overweighting the non-cyclical sector
4.5 Yields
4.6 Asset classes with the most consecutive negative annual returns
4.7 There is no one superior asset allocation

B. Issues when DC wealth is at a lifetime maximum
4.8 De-risking versus not de-risking prior to the onset of income drawdown
4.9 The impact on DC wealth according to whether the first year return in drawdown is positive or negative

C. Appendices
Appendix A: Table of investment returns needed to achieve nominal annual income
Appendix B: Table of investment returns needed to achieve real annual income

Introduction
In this Chapter we are looking at what investment modelling says about the framework we have developed for the three groups of consumers and where we can potentially deliver more value for them.

Summary
Evidence, insight and modelling point to an income drawdown solution with three moving parts. The three moving parts are one part cash flow; a second part of investments that can be released when larger, infrequent sums of income are wanted by the consumer; and a third part consisting of investments designed to provide good investment returns. Together, these are going to make-up a portfolio with overall low risk.

A large amount of modelling tells us that no one asset allocation is better than others. A low risk asset allocation helps DC wealth to be sustained over the early years, but that very same asset allocation lacks investment growth and leads DC wealth to not last. In contrast, a higher risk asset allocation helps DC wealth last decades but will also lead DC wealth to occasionally run out in the early years. Putting the pieces together, DC wealth needs a minimum of two moving parts - something low risk at the short end and something high risk at the long end. The model developed in this report has three moving parts.
In drawdown bonds are not all that safe. UK Government bonds have produced negative returns in 10 of the past 30 years; they have produced negative real returns just as often as equities; they are a higher return, higher volatility asset class in terms of yield; and are the only principal asset class to chain together more than 5 consecutive negative annual returns.

A mindset of investing for total return in drawdown will generate wasteful transaction costs and rebalancing of the asset allocation if income is needed. An approach that improves on this is to separate the cash flows from the capital return on the assets. The cash flows on risky assets are taken as income by the consumer and the capital assets stay invested as long as possible. Cash flows are not reinvested.

If we like equity returns but not the volatility we could overweight the non-cyclical sector. If we like equity dividends we could overweight high dividend stocks. Both together might be liked even more. The equity dividend yield is the lowest risk yield.

Attractive features of yields include low volatility, lack of negative values, and limited sequencing or path dependency risk. Yields also exhibit diversifying qualities so we reduce risk somewhat when investing for yield through diversification. For a person with DC wealth of £100,000 and who intends to take a smallish income we could invest for yield, achieve less than 1% annual volatility in that income, and have a high level of confidence that we are able to maintain the capital value of the portfolio.

An interest in yield may lead us to contemplate bigger investments in higher dividend paying firms. While this suggests less diversification, in income drawdown diversification may not be our key metric. Drawdown, ie drops, and consecutive negative returns are as, if not more, important. Diversification helps us invest efficiently, but it does not provide us cash flows or low shortfall.

We should only de-risk if there is a clear rationale. If a consumer in drawdown does not need a part of their DC wealth until later in life the potential lost investment returns from a typical accumulation phase 10 year de-risking glidepath is very large, and larger than any extra returns available from smarter investing later.
A. FURTHERING THE FRAMEWORK OF THE THREE GROUPS OF CONSUMERS

Chapter 2 suggested a framework based around three broad groups of consumers with different DC wealth at retirement. The first group has less than £30k, the second £30k to £60k, and the third more than £60k.

4.1 Consumers in the first group with less than £30k

For the first group the clearest commercially supportable solution is something akin to a bank account, but probably without the full flexibility of bank current accounts because the money would be invested. We are expecting our first group of consumers to take their DC wealth as one or a few lump sums, while being mindful of marginal tax rate considerations. People with DC wealth below £20,000 really are not going to be that interested in tax. The investments are likely to involve ‘safe’, liquid assets such as single maturity short dated bonds. If a short-dated bond is held to maturity we can ignore market fluctuations and changes in duration. For a person who wishes to access their pension pot as if it were like a current account, there is likely to be some advantage in having the fund invest on a yield to maturity basis. For the consumer, there may be some notice period to encashment, but otherwise a full cash-out facility could be made available. The consumer will be able to flexibly manage their DC wealth like a bank account. Their DC wealth will remain in a pension environment but cashing-out will transfer it into a retail environment. While this group may pull all their DC wealth into a retail environment within a year or two, we should not be that alarmed as we have good reason to think that there may be some DB wealth too.

A managed portfolio of longer maturity bonds is unlikely to be as good an investment solution because there can often be periods of negative return associated with these. There is also duration and convexity and reinvestment risks to manage. Chart 1 illustrates that over the past 30 years longer dated UK Government bonds have produced negative returns in 10 of those 30 years.

Chart 1 – Annual returns of UK Government Bonds over 30 years

Source: Barclays

Chart 2 illustrates that UK Government bonds have negative real returns just as often as equities do, it is just that the magnitude of the drop is less.
What investment return can our first group of consumers expect from the kind of safe investment we are talking about? Chart 3 presents various yields and returns for the latest half of the 114 year history of the Dimson, Marsh, Staunton and Barclays Equity Gilt data. The left hand side of Chart 3 presents various yields, and the right hand side presents returns. The bond yield premium is the yield on Gilts divided by the yield on Treasury Bills. The equity yield premium is the yield on equities divided by the yield on Treasury Bills. The index linked money yield is the nominal yield, ie we have grossed-up inflation (CPI) and the coupon to give a like-for-like comparison to other asset classes. We can see that inflation is more variable than the Treasury Bill yield and Gilt yield, which represent the kind of returns our first group of consumers can expect from their ‘safe’ investment. Overall, we have a fairly strong conviction that consumers in the first group will receive a return similar to, but not identical to, inflation. Their DC wealth will, more or less, maintain its purchasing power within a pension environment.
4.2 Consumers in the second and third groups with more than £30k

We are now turning our attention to the second group of consumers with £30k to £60k, and the third group of consumers with more than £60k.

4.2.1 Those with appetite for taking no investment risk

Some consumers within the second and third groups are going to want to take no investment risk. One part of this DC wealth may stay within a pension environment only for one or two years, but the other part may remain for some time. Tax considerations may be important to what happens next with the money.

For the part of DC wealth that’s likely to stay within a pension environment for one or two years before being cashed-out the solution above using single maturity short-dated bonds is probably most appropriate. This will involve investing on a yield to maturity basis.

For the part of DC wealth that’s likely to stay within a pension environment for two years or more, there may be merit in searching out a liquid, low charge, structured product with no downside risk. This fund should offer full downside investment protection, in other words ‘without shortfall’ to reflect the no risk consumers we are aiming at. The purpose is to find some greater upside investment return potential, perhaps an overall return target of inflation plus 0.5%. ‘Without shortfall’ typically means a guaranteed investment. This will normally involve full risk transfer to a third party. The third party will take most of the upside and fully insure all shortfall risk. With full risk transfer money is not being invested in the usual meaning of the word. This is because taking even a small amount of investment risk implies some variability of outcome. Our consumers have no appetite for investment risk, so the downside certainty we are looking at will usually require full risk transfer.

4.2.2 Those with appetite for taking some investment risk

Most consumers within the second and third groups will be willing to take lowish investment risk. A commercially supportable solution is an income drawdown product that remains invested. The provider pays a regular income to the consumer from the cash flows generated by the capital of the fund. The capital of the fund is also consumed to meet the income need of the consumer over time. The provider will suggest a sustainable income to drawdown until age 88 or 90. What happens after these ages can be solved by the ‘long life investment account’ as set out in Chapter 3. We designed a tax efficient vehicle for setting-aside some tax-free cash and reinvesting this within a new pension plan.

We identified in Chapter 3 that the income drawdown solution should have three moving parts. The three moving parts are:

1. One part cash flow.
2. A second part of investments that can be released when larger, infrequent sums of income are wanted by the consumer.
3. A third part consisting of investments designed to provide good investment returns.

Together, these are going to make-up a portfolio with overall low risk. Our aim is to grow consumers money and make it last longer. We can think of the three parts we are talking about as corresponding to three types of investment risk: zero to very low risk, low to medium risk, and medium to high risk. Chart 4 shows this breakdown.
The first part of Chart 4 is cash flows from investments to meet expected regular income taken by the consumer. **The aim is to use cash flows from capital assets such as dividends from equities, and coupon payments and repayment of principal on maturing bonds.** The time-frame we are looking at is one to two years’ worth of steady, regular expected income drawdown.

**The aim here is not to invest with a mindset of total return as we might do during the accumulation phase of investing pension savings.** In income drawdown, investing for total return would lead to reinvesting all cash flows from assets back into the same risky assets, while at the same time selling the same risky assets to top-up the allocation to safe assets that will be lower once income has been taken by the consumer. Unless risky assets are sold, the asset allocation to safe assets would naturally fall and this would make the overall fund’s position increasingly higher risk. So, with total return style investing in income drawdown there is inbuilt asset re-allocation where the overall fund increases in risk over time as safe assets are liquidated for the consumer’s retirement income. **A mindset of total return in drawdown will generate wasteful transaction costs and rebalancing of the asset allocation.** An approach that improves on this is to separate the cash flows from the capital return on the assets. The cash flows on risky assets are taken as income by the consumer and the capital assets stay invested as long as possible. The cash flows are not reinvested.

The second part of Chart 4 is investments that can be released if larger, infrequent income needs to be taken. If this was not in place there’d be occasional forced selling of higher risk investments at a time when values are at a historical low. Limited downside risk with income and some growth is going to be important here. This second part might hold a mix of Government and corporate bonds with maturities of about five years, possibly held to maturity, as well as some higher dividend paying equities from non-cyclical industrial sectors. Holding bonds with a mix of maturities on a yield to maturity basis will provide cash flows to the first part.

An alternative, or an ‘and’, for the second part is to hold a fund that uses futures to keep the fund relatively stable, growing, and liquid. Such funds tend to combine equity exposure for growth with an investment risk, or volatility, management overlay. The portfolio is a true overlay in the sense that the assets of the fund are not liquidated, except perhaps in a major market downturn. The equity exposure is usually dynamically managed by drawing on money put on margin. During times when volatility is rising and the fund’s actual volatility needs to be brought back in line with the target volatility that’s
been set, futures are sold to achieve a short position in the overall fund. In more benign market conditions the money on margin may be invested with a long position in stock futures, ready to turn into a short position according to the pattern of volatility. If there is a major market downturn the hedge would need to be increased and this is usually first of all funded by selling safer assets in the fund. These funds are designed to limit losses, reduce volatility and increase risk adjusted returns. We need to be mindful of costs and charges as we take a view about the value for money for consumers. These structured products can look quite attractive at this high level.

The third part of Chart 4 is investments designed to provide good investment returns. This part's not expected to be needed for five or more years. Investment growth is important here. The consumer could take the volatility for extra potential reward, and invest in equities and real estate investments, possibly with a bias towards higher income generating assets and the non-cyclical sector. Each of these is now worked using concrete data.

4.3 Overweighting high dividend equities

Chart 5 presents the same yields and returns as Chart 3 but now for the whole 114 year history of the Dimson, Marsh, Staunton and Barclays Equity Gilt data.

Other than corporate bond yields, the data for which only go back to 1998, the equity dividend yield is less volatile than bank base rates, building society rates, Treasury Bills, Gilts and Index Linked Gilts. The mean and median of the equity dividend yield is:

- Very similar to the yields on Treasury Bills, Gilts and Index Linked Gilts.
- Slightly higher than the long-run mean and median of inflation.

We are saying that equity dividends have extremely low volatility. Investors can increase that very volatility low yield by investing in higher dividend paying companies. Chart 6 shows that the equity yield on the MSCI World high-yield index is around 4.5%, some 1.5% more than the dividend yield on the broad market MSCI world index.
Holding high yield stocks has had similar total return performance as holding a conventional index. Chart 7 shows that the total return performance of the MSCI world and MSCI World high-yield index are very similar. Over the long-run, company valuations have been largely neutral as to whether profits are paid out as dividends or reinvested back into the business.

Of course a focus on higher dividend paying firms suggests less diversification. That’s true, but when taking an income in retirement diversification will often not be the key metric. Drawdown ie drops, and consecutive negative returns are as, if not more, important. Diversification helps us invest efficiently in the growth phase of investing. Diversification does not provide cash flows or low shortfall.
If equities are thought to be too volatile to use within income drawdown, one solution is to invest in the low volatility equity segment by overweighting the non-cyclical sector.

### 4.4 Overweighting the non-cyclical sector

A look at the main moving parts of an equity index reveals that some sectors are more cyclical than others. For example, retailing, information technology, industrials, materials, financials and energy tend to trend in one direction then the other more than telecommunications, utilities, healthcare and consumer staples. The investment volatility of the more ‘trending’ cyclical sector is higher. Non-cyclical sectors, of which there are four, have annualised 25 year volatility of 12%. This is relatively low and about the same as Gilts. Cyclic sectors, of which there are seven, have annualised 25 year volatility of 17%. Table 1 compares the volatility of the cyclical and non-cyclical sector for each sequential three year period since inception of the S&P Developed Index in 1989. Table 1 reveals that the volatility of the cyclical sector has exceeded that of the non-cyclical sector in each sequential three year period since inception. The extra volatility of the cyclical sector is an annual 4.7%.

![Table 1 3 Year Annualised Volatility](image)

<table>
<thead>
<tr>
<th>Non-cyclical sector volatility</th>
<th>Cyclical sector volatility</th>
<th>Cyclical minus non-cyclical sector volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>15.9%</td>
<td>17.5%</td>
</tr>
<tr>
<td>10%</td>
<td>9.1%</td>
<td>9.6%</td>
</tr>
<tr>
<td>20%</td>
<td>9.4%</td>
<td>11.3%</td>
</tr>
<tr>
<td>30%</td>
<td>11.2%</td>
<td>19.2%</td>
</tr>
<tr>
<td>0%</td>
<td>12.5%</td>
<td>18.3%</td>
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<td>6.6%</td>
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<tr>
<td>10%</td>
<td>11.9%</td>
<td>16.6%</td>
</tr>
<tr>
<td>20%</td>
<td>11.2%</td>
<td>17.6%</td>
</tr>
<tr>
<td>30%</td>
<td>11.9%</td>
<td>16.6%</td>
</tr>
</tbody>
</table>

Bearing the extra volatility of the cyclical sector over the long-run has not earned investors any extra return. Table 2 shows cyclical sector returns minus non-cyclical sector returns for each sequential three year period since inception of the S&P Developed Index, along with the extra volatility taken.

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3 Barclays Equity Gilt Study (2013).
4 A broad market index of up to 25 markets.
The rightmost column of Table 2 shows the extra return over each sequential 3 year period. This column sums to virtually zero, indicating the extra risk has not given us greater long-run return.

So, higher dividend paying firms from the non-cyclical sector should be more interesting to us.

4.5 Yields

Our framework has also identified a third group of consumers who have DC wealth of more than £60K. The investment drawdown solution for many of them could try to focus on paying an income from the cash flows received while consuming as little nominal capital of the fund as possible.

Attractive features of yields include low volatility, lack of negative values, and limited sequencing or path dependency risk. Yields also exhibit diversifying qualities so we reduce risk somewhat when investing for yield through diversification.

Chart 8 shows a yield-based efficient frontier for five asset classes. Treasury Bills are not very diversifying so have no more than 5% weight on the efficient frontier. The same result for Treasury Bills is found if we draw the efficient frontier back to 1900. They do not seem to help diversify. Gilts are a higher return, higher volatility asset class in terms of yield. The lower risk asset class in yield terms is equity.

One takeaway from Chart 8 is that for a person with DC wealth of £100,000 and who intends to take a smallish income we could invest for yield, achieve less than 1% annual volatility in that income, and have a high level of confidence that we are able to maintain the capital value of the portfolio.
In Chart 8, the efficient frontier starts at the most westerly point (the minimum risk combination) at 50% equity, 50% corporate bond, and travels through all outer points to the north, to conventional Gilts and Index Linked Gilts. Highest Sharpe ratio combinations are:

- 40% equity, 60% corporate bond.
- 30% equity, 70% corporate bond.
- 50% equity, 50% corporate bond.

We might view these two asset class combinations as not sufficiently diversified and therefore not our preferred choice. We could instead consider any of the yield based portfolio combinations in Chart 9 as these also provide close to maximum Sharpe ratio with potentially better ex-post diversification than the two yield-based portfolios above.
4.6 Asset class with the most consecutive negative annual returns

We mentioned that Gilts are a higher return, higher volatility asset class in terms of yield. Of course we normally associate Gilts as having low risk from a total return perspective.

We also mentioned that equities are a low risk asset class in terms of yield, but of course we normally associate equities as a high risk asset class from a total return perspective.

Earlier in the Chapter we pointed out that when taking an income from DC wealth, consecutive negative returns are very important to avoid because of the effect of selling more assets when they are at a low values in order to provide the same nominal annual income. Some commentators call this ‘pound cost ravaging’ due to the double detrimental effect of selling assets for income when they are not worth much, relatively.

Table 3 shows that the only asset class to chain together more than five consecutive negative annual returns is Gilts. Not shown in Table 3 is that Gilts also have more years of single negative returns than equities. Looking at equities, a globally diversified equity portfolio is associated with a smaller proportion of consecutive negative returns than UK equities.

<table>
<thead>
<tr>
<th>Years of consecutive negative returns</th>
<th>World Equity</th>
<th>UK Equity</th>
<th>Gilt</th>
<th>Corporate bond</th>
<th>IL Gilt</th>
<th>Treasury Bill</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>73%</td>
<td>57%</td>
<td>46%</td>
<td>100%</td>
<td>88%</td>
<td>0%</td>
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<tr>
<td>2</td>
<td>22%</td>
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<tr>
<td>3</td>
<td>5%</td>
<td>12%</td>
<td>13%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>4</td>
<td>0%</td>
<td>4%</td>
<td>7%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>5</td>
<td>0%</td>
<td>1%</td>
<td>4%</td>
<td>0%</td>
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<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>7</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>8</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Gilts are a risky asset class in drawdown because with Gilts there’s the greatest chance of multiple consecutive drops

Source: Barclays, DWS

4.7 No one superior asset allocation

A large amount of modelling of 114 years of equity, bond, Treasury Bill, and cash returns was performed. Some of the assumptions we altered were:

- Nominal and real returns.
- The structural relationships that underpin asset markets. Are we allowing a return sequence of, say, -15%, -15%, -15%, -15%, -15%, -15%, -15%, -15%? We did and then we did not.
- Varying the proportion of deflationary, low, moderate and high inflation scenarios.
- Following historic investment returns and their exact sequence.
- Following historic investment returns but scrambling the sequence.
- Linking asset class returns over two, three and four year periods to keep their structural relationships and then scrambling the sequence in which they occur.
A majority of the outputs point in the same direction. The consensus finding is that over 40 years of income drawdown, from say age 60 to age 100, no one asset allocation is better than others.

The least that we need is a low risk short horizon asset allocation, and a higher risk long horizon asset allocation.

The low risk short horizon asset allocation ensures that DC wealth is sustained over the early years. But this asset allocation lacks investment growth and it is not helpful in making consumers DC wealth last over decades.

In contrast, a higher risk asset allocation will, on occasion, mean some consumers DC wealth runs out in the early years due to adverse sequencing risks. But looked at over a longer-term the DC wealth of more consumers will last longer.

Table 4 overleaf gives a flavour about how long consumers’ DC wealth will last under different asset allocations and the role of more than one asset allocation. The vertical axis of the many distributions shows the proportion of consumers with the DC wealth on the horizontal axis. The horizontal axis labels and scale are always the same but the vertical axis scale will change so as to make the distributions clearer to the eye.

Equity is World Equity Total Return. Treasury Bills and Bonds are UK Government. All data are from 1 January 1900 to 31 December 2013. 5,000 simulations are run on randomised, linked four year historical return blocks for different asset classes. For example, actual annual returns from 1900 to 1903 for equities, bills and bonds are one block. In this way we are assuming that cross-sectional asset class returns are linked, eg via prevailing macro economic conditions, as are short-term intra asset class returns, ie a large equity market drop is linked to the sharp rise that follows. We are saying these fundamental structures need to be maintained, so we bring them into the modelling. The 111 four year ‘blocks’ are randomised to generate 40 year drawdown simulations. The key points to note here are that we are sampling from a period in history that has been generally quite good (longer term returns of CPI+5% from a balanced approach). There is a £100,000 pension pot and £6,000 annual income is taken, increasing 3% per annum to maintain purchasing power. Inflation is assumed to be 3%, which is equal to median UK annual inflation from 1900 to 2013.

Only one asset allocation stops consumers from running out of DC wealth during the first 15 years. This is 45% equities, 45% Treasury Bills, and 10% bonds. But after 30 years this asset allocation is the one that causes the highest proportion of consumers to run out of DC wealth! The asset allocation we should then have is 100% equities.

So, modelling lends support to our frameworks of three moving investment parts.
How long will Consumers DC wealth last? Distribution of drawdown simulations after longer periods of time

<table>
<thead>
<tr>
<th>After 5 years of drawdown</th>
<th>After 10 years of drawdown</th>
<th>After 15 years of drawdown</th>
<th>After 20 years of drawdown</th>
<th>After 25 years of drawdown</th>
<th>After 30 years of drawdown</th>
<th>After 35 years of drawdown</th>
<th>After 40 years of drawdown</th>
</tr>
</thead>
</table>

Equity is World Equity Total Return. Treasury Bills and Bonds are UK Government. All data are from 1 January 1900 to 31 December 2013. 5,000 simulations are run on randomised, linked 4 year historical return blocks for different asset classes. For example, will annual returns from 2000 to 2003 be equal, etc., and results are entirely reproducible. In this way we are assuming that cross-sectional asset class returns are linked, e.g., to prevailing macroeconomic conditions. A large equity market drop is linked to a sharp rise that follows. We’re using these fundamental structures and have maintained, overwriting them in the modelling. The 111 four-year “blocks” are randomised to generate 40 year drawdown simulations. The key points to note here are that we are sampling from a period in history that has been generally quite good (longer term returns of CPI+5% from a balanced approach). There’s £100,000 pension pot and £6,000 annual income is taken, increasing 3% per annum to maintain purchasing power.

Table 4
B. ISSUES WHEN DC WEALTH IS AT A LIFETIME MAXIMUM

When consumers’ DC wealth is at a maximum, usually from age 55 to about age 70, providers have
the ability to make the biggest difference to that wealth. A small difference in annual investment return
and fewer drops in value can make a large difference to the absolute value of wealth. This means
more tax-free cash, more income, and income for longer into retirement.

4.8 De-risking versus not de-risking prior to the onset of income drawdown

Chart 10 shows the effect of de-risking versus not de-risking a portfolio over the typical 10 years pre-
retirement. The chart shows the difference in DC wealth at age 67 (future state pension age) of a
consumer in a fund that does not de-risk at all and a consumer in an identical fund that de-risks
linearly from a long-run average nominal 5.5% annual investment return to 3% annual return (inflation
+ 0.5%) over 10 years.

The result shown is for a person with an income of £10,000 in the working years but the chart’s shape
is the same whatever the income level of the consumer during their working years5. In other words, the
difference between the two funds is only due to the de-risking effect when wealth is close
to a lifetime maximum. 10 years of gradual, smooth de-risking leaves the consumer’s DC
wealth 16% lower than if left invested and not de-risked. In practical terms that equates to higher
tax-free cash and two to three years’ extra income in retirement.

Chart 10 – Opportunity cost of de-risking 10 years from taking a retirement income

5 The consumer modelled here starts with an income of £10,000 that grows at 2.5% each year. The pensionable
income in year one is £4,228, rising thereafter in line with earnings. Contributions are the minimum 8% and pension
scheme charges 0.5% each year.
Chart 11 shows the amount of higher tax-free cash as a result of different de-risking glide paths from the worked example in Chart 10.

Chart 11 – Average tax-free cash available a function of glide path

The take-away from Charts 10 and 11 is that if a consumer in drawdown does not need a part of their DC wealth until later in life the potential lost investment returns from de-risking the wealth too soon is very large, and larger than any extra returns available from smarter investing later. We should only de-risk if there is a clear rationale.

4.9 The impact on DC wealth according to whether the first year return in drawdown is positive or negative

Consumers DC wealth is also close to a lifetime high in the first few years of drawdown. Chart 12 shows the impact on DC wealth when a steady, regular income is taken by the consumer and the first annual investment return in retirement is negative or positive. The effect of a losing year in year one of drawdown can be very costly in terms of income sustainability because income is taken from a portfolio that is dropping in value at the same time.

For chart 12 we use 114 years of actual data are used in calendar order. 88 yearly retirement cohorts were created from the actual data – from 1900 to 1988, each with 25 years of subsequent investment returns. The annual samples were grouped into a first year negative return group if the first year investment return was less than zero. The annual samples were grouped into a first year positive return group if the first year investment return was zero or more. A balanced portfolio of 50% world equity, 40% world bond, and 10% Treasury Bill is modelled.

Starting with DC wealth of £100,000 at the beginning of the year and an income taken of £6,000, the consumers DC wealth will be 18% different according to whether the first year’s investment return was negative or positive. For all percentiles investigated the fund never recovers from the effect of a first year negative return. Statistical tests not reported show there is no path dependency. In other words, there is no persistent pattern of similar subsequent returns after a first year negative return or a first year positive return. The effect we see is solely due to year one.

---

6 A bootstrap of the annual returns was also performed with similar results.
Chart 12 tells us we need to be investment risk averse in the short-term and more risk tolerant in the longer term. This is exactly what the framework slowly developed through Chapters one to three of this report is also telling us. Our three part model does not need to draw on risky assets after a market drop because the income drawn comes from cash flows, capital assets are not sold. The fund is low risk at the short end and high risk at the long end.

**Chart 12 – What happens to DC wealth according to whether the first year return in drawdown is positive or negative**

- After year one, average difference is £18,700
- After 23 years, average difference is £37,000
- At 5th percentile difference is £15,400, or 2½ additional years income

Person has £100,000 pot and takes £6,000 pa cash drawdown from a portfolio of 50% world equity, 40% UK bonds, 10% UK risk free.

Real returns in UK£. DMS data
Appendix A: Table of investment returns needed to achieve nominal annual income

<table>
<thead>
<tr>
<th>Assumed age</th>
<th>Nominal Annual Income</th>
<th>Years of income</th>
</tr>
</thead>
<tbody>
<tr>
<td>64 4</td>
<td>7.7%</td>
<td>100,000</td>
</tr>
<tr>
<td>65 5</td>
<td>15.2%</td>
<td>100,000</td>
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<td>67 7</td>
<td>22.9%</td>
<td>100,000</td>
</tr>
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<td>68 8</td>
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</tr>
<tr>
<td>69 9</td>
<td>26.3%</td>
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</tr>
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<tr>
<td>100 40</td>
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Initial retirement pot of £100,000 after PCLS.
## Appendix B: Table of investment returns needed to achieve real annual income

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<th>Years of retirement income</th>
<th>Real Annual Income</th>
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<td>3,000</td>
<td>18.5%</td>
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</tbody>
</table>

Initial retirement pot of £100,000 after PCLS.
References

Age UK Research Department Report (2014) Generation R: risk, resilience, ready for ageing?


Ignition House (2014b) Exploring Consumer Attitudes to Default Funds – Qualitative Consumer Research


NEST (2014) Improving consumer confidence in saving for retirement


Important information

- The value of investments and the income from them may fall as well as rise and are not guaranteed. Investors may not get back the original amount invested.

- Past performance is not a reliable indicator of future results.

- This report is for information purposes and should not be treated as a forecast, research or advice to buy or sell any particular investment or to adopt any investment strategy. Any views expressed above are based on information received from a variety of sources which we believe to be reliable, but are not guaranteed as to accuracy or completeness by Sanlam Private Wealth. Any expressions of opinion are subject to change without notice.

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