WHEN I'M SIXTY-FOUR

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Cazalet *Consulting*

CONTENTS

Speed Read

The massive shift in the UK's demographic profile (over 65s doubling in number from 8m in 2001 to 16m by 2061) was always set to lead to increased demand from later life investors for on-going investment-related financial services, which is very positive for financial advisers with the right skill sets and business models.

For this massive wave of retirees, life at older age will not be lived in a straight line. Nowadays, marriages are more likely to end because of divorce than death, and the greater part of the life expectancy of a 65 year of old is not likely to be in good health, with regard to which the number of people aged 90 and over is set to increase from just over 500,000 now to 1.7m by 2037, while the number of dementia sufferers in the UK is projected to increase from 850,000 currently to 1.1m by 2025 and more than 2.5m by 2051.

The scale of the opportunity and nature of the burgeoning in-retirement baby boomer client base will demand re-thinking on the part of providers, advisers, policy makers and regulators in establishing robust protocols for the delivery of on-going, client-centred propositions that may endure for 30 or more years of later life.

With many fewer retirees now purchasing annuities and, instead, relying on investment arrangements that will require on-going stewardship, there are questions as to how to engage with those who become infirm and suffer reduction in cognition. There also is the issue of clients who outlast their advisers. All of which suggests a need for a more co-operative approach between advisers, product and fund providers and platforms to ensure continuity and consistency of on-going service, especially in the case of "middle market" customers.

Many more individuals are now likely to think about withdrawing funds from private sector defined benefit schemes or consider forgoing personal pension guaranteed annuity options. However there is the risk of "advice fright" on the part of intermediaries who are scared off from being a party to a process where the outcome is that the client "takes a haircut" in return for "jam today" and, to counter this, we recommend that the advice process includes mandatory net present value calculations to clearly highlight the liquidity premium potentially paid by the client in forgoing pension benefits within existing arrangements.

A key risk for those in retirement is income erosion from inflation – the thief that keeps on taking – which at a mere 3.5% can reduce fixed income spending power by half over 20 years.

In recent times, standard annuity rates have represented poor value for money when looked at through the dispassionate lens of money weighted analysis, with many level annuity purchasers more likely than not to die before they do as much as get back the purchase price. Current terms on index-linked annuities are even worse. Annuity returns were not always so thin, but the IRR outcomes taking account of life expectancies have been on a gradual downward trend since the 1980s, influenced by declining interest rates and increasing longevity.

The Budget changes demand wholesale review of existing lifestyling, target date fund and drawdown strategies, which in any event should never be implemented on a "set it and forget it" basis, but instead ought to be subject to continuing oversight and refinement. Advisers and clients should be alert to shifting asset class correlations, and understand that investment return sequence risk (the order in which returns are achieved) can lead to a wide range of at-retirement fund outcomes even within the same overall average investment return scenario.

Over the long term, equities have produced superb inflation-beating returns, mostly derived from dividend income but, shorter term, can be volatile while, currently, the 30 year bond bull market is running out of road and may go into reverse, meaning that decumulation portfolios and strategies involving "eating capital" need careful construction and on-going monitoring to reduce the risk of "pound cost ravaging" that can inflict considerable damage on a client's continuing retirement income prospects.

To fill the annuity gap and help mitigate drawdown investment risk, providers are busying themselves preparing a tsunami of new accumulation and decumulation propositions, including offerings without guarantees as well as contracts in with profit, variable annuity and CPPI formats. It is crucial that advisers, providers and regulators move away from naïve and potentially misleading and harmful reliance on simple metrics such as RIYs and annuity rates to embrace money-weighted evaluation techniques and the use of stochastic modelling to generate realistic projections of client outcomes that allow for downside as well as upside scenarios to help devise sturdy, enduring client propositions that, in many cases, will be built from a blend of solutions.

SECTION 1

COMMUNICATION

"Send me a postcard, drop me a line
Stating point of view
Indicate precisely what you mean to say
Yours sincerely, wasting away
Give me your answer, fill in a form
Mine for evermore
Will you still need me, will you still feed me,
When I'm sixty-four?"

The Beatles

People Not Products

Bye Bye, Cap'n Birds Eye

Johnny is eight. Every day he is sure to make it home from school for 4:30. He knows that, on the dot, his mother will have his supper ready and waiting for him. Fish fingers! He loves them!

Then one day he arrives home on time as usual, but there is no sign of mother. All is quiet. He looks around and sniffs the air. There is nothing cooking.

He opens the fridge door. Blinded by the white…Nothing there. It's empty.

Johnny shuts the door and turns. On the kitchen table he sees some paper from a notebook. On it, his mother has written, "Sorry Johnny, there's been a change. I can't explain now. Take the ten pounds [a banknote is attached by a paper clip] and feed yourself. Love, Mummy XX".

People, not products

Up until now, savers have been spoon-fed pension plans, then force-fed annuities.

The old at-retirement regime was about explaining the limited choices available under a specific, tightly-governed product. If the customer refused to engage with the process to any significant degree he/she ended up being defaulted into an annuity in any event.

The new world is fundamentally about the person and NOT about pre-set product/fund arrangements.

As far as what it is that you do with your pension pot, the world is your oyster, which goes to the heart of the question as to what consumers (most of whom are financially non-savvy) will need from financial services providers going forward, and whether those providers (and intermediaries) will be able to provide whatever "it" is on a cost-effective mass market basis.

Mass market

Under the new regime, the upper end of the market will continue to have access to financial advisers eager to make their services available to existing and prospective clients with substantial sums.

But in today's world, where workplace consultancy charging has been outlawed and, post-RDR, the stealthy option of remuneration by commission is no longer and the scope for the cost of advice being spread across an adviser's client base with an element of cross-subsidy is limited, what is to become of the mass market who, now that they are not being shoe-horned en masse into annuities and will want some help with making informed decisions that will be crucial to their economic well-being for the remainder of their lives?

We will consider the guidance guarantee and access to advice shortly, but first some comment on financial capability.

50% of People…

No brain required

The old pension model was for someone to be sold a pension plan and to continue saving in the managed fund or with profit fund until, once day, they get a letter from the insurance company telling them that they are reaching their selected retirement date and that they will have to use most of their pension pot to buy an annuity.

No brain on the way in, and no (or very little) brain on the way out.

Now, however, the in-retirement investment options span the gamut from Lamborghini motor cars to lottery scratch cards and so, as Aretha Franklin would urge, it's time to "Think!".

The problem is that consumers and some advisers are quite unused to thinking about decumulation risks on an holistic and on-going basis. Annuity purchase is a once-and-done thing, and drawdown discussions have tended to get too caught up in the detail of GAD limits and other legislative traps, with proper brain-stretching consideration of client-centred risk and reward rarely getting a look in.

Financial incapability

In that slim volume, "The Actuaries' Joke Book", one may read that "50% of people don't know what 50% is".

The poor financial understanding of British adults is no laughing matter and, now that semi-compulsory annuity purchase is no longer the case, adult innumeracy is a real concern. (Actually, as we will illustrate later, if most adults were possessed of good financial capability, compulsory annuitisation likely would have caused rioting in the streets long ago.)

There has been a steady stream of survey evidence to back up this assertion…

> Investec 2012…Only 30% of SIPP investors (surely in the higher-than-average-capability category) who manage their own pensions are "confident" they have the necessary knowledge and expertise, while two-thirds of them admit to not having the expertise to manage their own fund.
>
> Aon Hewitt 2012…In a survey of 2,000 people, just 16% felt that they adequately understood the impact of inflation on their pension, and two-thirds failed a simple arithmetic test when asked what 2% inflation would do to the buying power of £100.
>
> MAS 2013…When asked to identify whether inflation at 5% would have eroded the purchasing power of money in an account paying 3% interest, more than one-third got this wrong.
>
> Welsh Assembly 2007…Over half of adults in Wales have poor numeracy skills…A total of 53% of people aged 16 to 65 had numeracy levels of an 11 year old or below.
>
> FSA 2006/MAS 2013…16% of all adults and more than 25% of adults aged 55+ are unable to identify the available balance on a bank statement.
>
> MAS…In 2013, 12% of adults believed the Bank of England base rate to be over 10%.

> MAS…In 2013, of 5,079 adults surveyed, 79% said they "lack confidence" when it comes to managing their money.
>
> National Numeracy 2012…Around 4 in 5 UK adults have a low level of numeracy.

The poor standard of numeracy (and of reading skills) among the adult population presents a huge challenge for providers, advisers and others seeking to engage more closely with people to help them make informed decisions with regard to retirement planning.

Brochures and other communications tools designed by actuaries for actuaries are likely to miss the target!

The wider "industry" has a huge job of work to do in devising methodology and presentation approaches that resonate with the significant proportion of the population who struggle with basic arithmetical tasks, but whom now may need on-going advice, guidance or other financial support throughout retirement if they do not annuitise their pension pots.

TPAS feedback

Feedback from The Pensions Advisory Service ("TPAS", which hitherto might be said to have been dealing with more "engaged" and "informed" members of the public) sheds further light on the challenges of pension communication.

Based on its own experience and analysis, TPAS is of the view that there is an "understanding gap" between what people do during their working life to prepare for retirement and their concept of a pension and what people need to do to at the point of retirement.

There is a need for more generic information taking people step by step through the whole pension/annuity journey.

Like the providers we interviewed, TPAS is also of the view that pension statements generally are not understood by the bulk of the population, and that pre-retirement packs tend to confuse consumers and raise more questions than they provide answers.

In the way?

When it comes to pensions, the FCA and the regulatory regime, despite good intentions and earnest endeavours, is regarded by many as standing in the way of effective consumer communications.

> *Pension statements*
>
> Having spoken at length to CEOs and customer service heads of several major life groups on the matter of consumer comprehension, and having had multiple interactions on the topic with the CEO of TPAS, there is unanimity that customers simply do not understand pension statements.
>
> They do not work. Tinkering with them will not solve anything. FCA should stop going round in circles, recognise this stark reality, and change the regime radically.
>
> *Retirement packs*
>
> There is also unanimity from providers and TPAS that customers do not read/understand retirement packs. The prevailing view from those at the consumer "front line" is that packs

contain too much information for them to take in. The packs do not work. FCA should recognise this and should work with providers to change the regime.

Stochastic preference

As a means to sparking more meaningful engagement with customers, some providers have expressed a strong preference for graphic-centred stochastically-driven outputs (with supporting words and numbers) to vividly illustrate potential outcomes to consumers, but consider that the enforced combination of stochastic with deterministic assumptions is more hindrance than help.

Financial metrics

Later in this document, we will explain why some of the key financial metrics commonly used by providers and advisers and, in some cases mandated by the FCA with regard to product evaluation (such as the use of RIYs), sometimes may be inappropriate, potentially highly misleading and a cause of consumer detriment, especially when applied/not applied to products with guarantees or options or used in the context of decumulation.

The FCA should take action to ensure that customers and advisers are provided with and use the appropriate tools for the job, and we believe that money-weighted evaluation should feature much more prominently, especially in the context of retirement-related accumulation and decumulation propositions.

Using the wrong measurement tools is a recipe for considerable consumer detriment (imagine using a thermometer to work out whether it was sunny outside), and industry bodies (ABI, APFA, CII, IMA, PFS etc) and the FCA should be encouraged to support a move to making money-weighted evaluation the standard methodology.

Perhaps the biggest issue for the FCA in promoting widespread access to support for informed consumer decision-making is the thorny matter of advice versus guidance. Before we look at that, let us see how providers, advisers and TPAS are readying themselves for 2015.

TPAS, MAS, Providers & Advisers

All shook up

It hardly is an exaggeration to say that the Budget reforms tip the entire pension industry on its head. While the changes to the decumulation regime should be positive, in aggregate, for consumers and for product and fund providers and advisers, there is a worry that everything will not be "all right on the night" when the new rules take full effect in May 2015.

For all the talk about guidance "signposting" (more on this below), the last-minute-dot-com environment in which the changes, which took almost everyone by surprise, are being implemented on a "big bang" basis at breakneck speed, currently sees sector participants struggling to make progress in an operational landscape that is lacking in paved roads to the new world of laissez faire decumulation.

Indeed, some aspects could be characterised as "destination unknown". In particular, there are concerns with regard to the following:

- Potential confusion on the part of consumers arising from cross-cutting of existing intermediary relationships, arising from providers being required to signpost policyholders to guidance providers (and, by implication, away from existing financial adviser relationships).

- Default schemes and lifestyling, where trustees and others having stewardship over and/or advising on workplace pensions are being hard pressed to revisit existing default structures and come up with arrangements that fit with the wide range of at-retirement options now open to individual plan/scheme members.

- The depth of guidance delivery resource. As discussed below, we do not see how the Money Advice Service can, from within its own resources, deliver guidance in accordance with the standards set out by the FCA. This would appear to put everything on the shoulders of TPAS which, although it has an admirably capable and efficient cadre of in-house pension experts, may struggle to cope single-handed if guidance signposting triggers large demand.

- There also is the question of the extent of guidance guarantee take-up by consumers. A pilot earlier this year elicited a very low response, but things could be very different when the new regime goes live.

- The new rules pose not insignificant systems and communications challenges for life offices and other pension providers. Notwithstanding contractual terms, some insurers that have in-force contracts that contain auto-annuitisation triggers may need to consider what steps they should take to deal with any apparent conflict between policy provisions and the new rules, especially in an environment of historically low annuity rates.

- Whether consumers take-up the guidance guarantee or not, it seems inevitable that the decumulation reforms will stoke a huge increase in the need for personally-relevant financial advice (which will not be provided under the guidance process). The RDR commission crackdown, the ban on consultancy charging and, for many trust-based schemes, the lack of relationship between benefit consultant and scheme members, all conspire to potentially limit the access of "middle market" retirees to financial advice on economic grounds.

Guidance guarantee delivery partners

It should be noted that the intention is for the guidance guarantee to be provided using new and different branding which, in part, will help avoid confusion with regard to "guidance" being given by any so-called "advice" service.

The role of TPAS and MAS in delivering the guidance guarantee has been set out in the FCA's CP 14/11, which was published in July 2014, which also establishes the framework for "signposting" of the guidance guarantee by providers and pension schemes.

As explained below, notwithstanding that it has been named as a delivery partner of the guidance guarantee, as at September 2014 it was not at all clear as to whether and how MAS would be able to comply with the guidance delivery requirements as required by HM Treasury and to be subjected to on-going scrutiny by the FCA as, unlike TPAS, MAS appears to have no existing infrastructure to undertake that role in the manner specified by the FCA in CP 14/11 (which we describe in detail below).

Signposting by providers & schemes to the guidance guarantee

As set out in the FCA's CP 14/11, scheme trustees and contract-based pension providers will be required to give individuals relevant information about their pension savings and benefits and clearly signpost their members and customers respectively to the guidance guarantee, ensuring that they are aware they are entitled to the guidance and how to access it.

Onward signposting from the guidance guarantee

The FCA has advised that the guidance does not replace financial advice given by regulated advisers, nor does it replace communication programmes run by trustees for their members or contract-based pension providers' communications with their own customers.

The FCA has stated its expectation that many people will continue to consult a financial adviser and notes that the guidance will signpost people to additional specialist help, where appropriate, including, for example, regulated financial advice or debt advice.

Guidance standards & supervision

The objective of the guidance guarantee is to empower consumers to make informed and confident decisions on how they use their pension savings in retirement and repeats HM Government's statements to the effect that the guidance is not intended to stray into areas such as specific product or provider recommendations, "which would be better handled by an authorised independent financial adviser".

However, to be effective, the guidance will need to be tailored, providing consumers with sufficient personalised information, so that they can understand their options and make confident, informed decisions about their retirement choices.

The organisations delivering the guidance will not be subject to FCA authorisation and regulation, but will be subject to principles-based standards enshrined within a separate standards regime, compliance with which will be overseen by the FCA.

The aims of the guidance guarantee standards are to:

- Ensure that the guidance is impartial, consistent, of good quality and engaging across the range of delivery channels.

- Create consumer trust and confidence in the delivery partners and content of the guidance so that consumers actively use the service.

- Ensure that the framework works for both contract-based and trust-based pension schemes.

- Deliver helpful guidance for consumers that considers their retirement options and refers them to specialist advice or information where appropriate.

The FCA has stated that this means all those involved in the guidance process (pension providers, scheme trustees, consumers and delivery partners) have certain responsibilities to ensure that the guidance is as relevant and useful to the consumer as it can be.

Delivery of the guidance

HM Treasury holds overall responsibility for the service design and implementation of the guidance service and will work with a range of organisations to deliver the guidance guarantee. This is seen as ensuring consistency of service delivery across the delivery partners, which must not charge the consumer for the guidance.

The delivery partner should set factual financial and personal information that would be helpful for the individual to gather before the guidance session. While consumers cannot be required to divulge personal information, the delivery partner should encourage the consumer to provide this information on the basis that it will make the session more meaningful and helpful to them.

The delivery partner must discuss with the consumer their relevant options and provide key facts and information on the consequences of each of those options. Based on the information provided by the consumer, the delivery partner must set out other issues for the consumer to consider.

The delivery partner must also ensure that the consumer receives a record of their guidance session.

The guidance

Objective

The objective of the guidance guarantee is to empower consumers to make informed and confident decisions on how they use their pension savings in retirement. To be effective the guidance will need to be tailored, providing consumers with sufficient personalised information.

Therefore, the guidance is intended to inform, educate and help empower pension savers, and equip them with information about their options when accessing their pension savings.

The guidance will give consumers key facts and information about the consequences of the relevant options, for example taxation. It will also set out other issues the consumer should consider based on the information the consumer puts into the discussion; for example, the needs of the family where a consumer has a spouse or dependants.

The guidance will provide clear next steps and appropriate signposting to further sources of information or advice. The consumer will receive a record of the session for future reference and continuation of their retirement journey.

The guidance is not intended to stray into areas such as specific product or provider recommendations, which the FCA considers “would be better handled by an authorised IFA”. Therefore, the guidance will not tell consumers which option to choose or recommend a particular product, provider or adviser. Ultimately, consumers will be responsible for the decisions they make.

The delivery partner must ensure that all those who: approve the design of any processes and tools, including web-based material; deliver the guidance over the phone; or deliver it in person are competent and have sufficient knowledge and expertise to deliver the guidance or design any processes and tools.

Delivery partner processes

The delivery partner must establish processes to ensure that the guidance session is delivered consistently across the delivery channels and that it:

- Sets out the scope, purpose and limitations of the session.
- Sets out the information (pension entitlement and other personal and financial details) that will be used during the session.
- Requests all relevant information from the consumer about their pension entitlement.
- Requests relevant information about the consumer's financial and personal circumstances that would inform the discussion. This would include information on family circumstances.
- Alerts the consumer to other sources of information and advice as appropriate and at relevant points during the session.
- Discusses the relevant options and the key facts and consequences for each option and, based on the information provided by the consumer, sets out other issues for the consumer to consider. This could cover life expectancy, the danger of running out of money during retirement and possible long term care needs.
- Sets out next steps for the consumer to take forward, as well as appropriate signposting to further sources of information, guidance or advice.

Next steps

The delivery partner must:

- signpost the consumer to further information, advice or relevant support tools;
- ensure that signposts are appropriate and consistent with the principles of the guidance; that is be impartial, consistent, relevant and of good quality;
- not recommend specific products, providers or financial advisers but empower consumers to find further sources of information, a product or specialist advice; for example, by referring the consumer to a directory of advisers.

Guidance record

The delivery partner must ensure that the consumer receives a record of their guidance session.

This record must cover the options discussed with the consumer and key facts and consequences, as well as other sources of information or specialist advice, and information on how to shop around for any products the consumer wishes to consider purchasing.

Consumer journey through the guidance session

The FCA considers that it is important that the consumer receives consistent, good quality guidance across the range of delivery channels.

As set out by HM Treasury, consumers must be notified that they can access the guidance service by their pension provider or scheme trustee on a per pot basis.

This means that a consumer could be informed on more than one occasion and by more than one pension provider or scheme trustee that they can access the guidance. However, in each case the FCA would expect the delivery provider to prompt customers to think about all their sources of pension to make the session as meaningful as possible.

The FCA has identified key stages in the journey, as steered by the consumer:

- Set out the scope, purpose and limitations of the session.
- Request relevant information about the consumer's pension entitlement.
- Request relevant information about the consumer's financial and personal circumstances and objectives.
- Discuss the relevant options, including the key facts and consequences for the options and, based on the information provided by the consumer, set out other issues for the consumer to consider.
- Set out next steps for the consumer to take forward and appropriate signposting to further sources of information, guidance or advice.

Scope, purpose and limitations of the session

The FCA considers that it will be important to set out very clearly for the consumer the scope, purpose and limitations of the guidance session. This is intended to manage the consumer's expectations by explaining what the guidance will, and will not, do and ensure they recognise that they are responsible for making their own decisions. As a minimum, this should make it clear to the consumer that the aim of the guidance is to empower them to make informed and confident decisions on how they use their pension savings in retirement.

The guidance will give consumers key facts and consequences about their options and provide information on next steps for the consumer to take forward, as well as appropriate signposting to further sources of information or advice and a record of the session for future reference and continuation of their retirement journey.

The guidance will not tell consumers what to do, in terms of the specific action to take in their circumstances, nor will it recommend a particular product, provider or adviser.

Ultimately, consumers must take responsibility for the decisions they make, but the guidance will support them in this decision making and help empower them to make the most of their pension savings.

The FCA would also expect the consumer to be alerted to other sources of information and advice during the session, if the consumer wants this information or advice, or if the information provided by the consumer suggests that more specialist advice is needed; for example, debt advice, advice on state benefits or regulated financial advice.

Requesting relevant information about the consumer's pension entitlement

Pension providers and scheme trustees will be required to provide the customer/member with the necessary information regarding their pot. This could include:

- the size of their pension pot
- details of any market value reduction, guarantees or any other relevant special feature
- in the case of trust-based schemes, details of any other pension benefits held by the member - for example, the defined benefit where the DC pot is an additional voluntary contribution.

The delivery partner will request this information from the consumer at the beginning of the session.

Requesting relevant information on consumers' financial & personal circumstances & objectives

To get the most out of the guidance session, the consumer will need to input or provide a certain level of financial and personal information.

Consumers cannot be required to divulge personal information but the guidance should encourage people to provide relevant information on the basis that it will make the output more meaningful and helpful to them. This would cover areas like the consumer's wider financial information and personal circumstances.

For example, the FCA would expect the following information to be relevant:

Financial information

- other pension pots or benefits
- spouse/partner's pension pots or benefits and other income
- current and future sources of income
- capital expectations
- tax status
- entitlement to state benefits (current and future)
- home owner or renting
- debt position

Personal circumstances

- dependants
- spouse/partner
- state of health
- potential long-term care needs

Objectives

- the consumer's plan for retirement, to identify retirement income needs

Discussion with the consumer

The FSA expects delivery partners to discuss the relevant options, including the key facts and consequences, and set out other issues for the consumer to consider.

Once the relevant financial and personal information has been collected from the consumer, the options relevant to that consumer should be discussed, alongside the key facts and consequences for each.

While not exhaustive, the broad categories of options include:

- Taking income via a formal retirement income product; for example, an annuity or drawdown product (including other income generating products that may emerge).

- Taking cash, which could be used for any purpose, including providing ad hoc income or a rainy day fund.

- A combination of these options.

- Not taking any action at that time.

Based on the personal and financial information the consumer has provided, the FCA would also expect other issues to be set out for the consumer to consider; for example, the needs of the family if the consumer has a spouse or dependants.

The FCA would also expect consumers to be alerted to areas that they may not have considered; for example longevity and the danger of running out of money during retirement, the possible impact of state benefits and possible long term care needs. The FCA also expects consumers to be given information about where to get more information on topics that are relevant to them.

Next steps for consumers to take

The FCA has stated its belief that a critical part of empowering consumers is ensuring that they are clear about the next steps they can choose to take and where they can go for further information. Accordingly, delivery partners will be expected to set out next steps for the consumer to take forward and for there to be appropriate signposting to further sources of information, guidance or advice.

The FCA believes there will be three possible broad categories of outcome resulting from the guidance: the consumer could take no immediate action; require specialist advice or information; or decide to buy a product or products directly. The delivery partner should suggest appropriate hand-offs for specialist advice or further information, as well as appropriate support tools to help and encourage consumers to shop around.

Guidance session record

The FCA believes that the consumer should receive a record of their guidance session, which will be of practical use in the future. This should cover information on the options, as well as suggest appropriate places where the consumer can get further information or specialist advice. This could include:

- information on how to shop around, signposting to relevant websites and setting out questions the consumer can ask when purchasing a product; and/or

- signposting to debt advice services, benefit advice or full financial advice; for example, to a directory of financial advisers.

Content & format of signposting

HM Government has indicated that it will place an obligation on the FCA to make rules to require providers to signpost their pension customers to the guidance service. (An equivalent requirement will be placed on the trustees of trust-based schemes.)

The requirement to signpost ensures those who may not otherwise be aware of the guidance are directed toward this service at a relevant time.

The FCA has made it clear that signposting is about more than simply referring to the existence of the guidance service and proposes that, in signposting their customers to the guidance service, providers should:

- Clearly set out that the guidance is available and that it is a free impartial guidance service to help consumers understand their options.

- Show clearly how the guidance service can be accessed by giving the website details and phone number, and making it clear that face-to-face guidance is available to those who want it.

- Provide the customer with the information they will need to make an informed decision about that pension pot (either with or without use of the guidance).

The FCA does not propose any conditions on the format of the signpost. However, as the guidance service develops, the FCA thinks that it may be desirable for customers to receive all of this information in a standardised, separately-branded, format to facilitate the interface with the guidance. For example, in future it may be possible for firms to provide this information by e-mail in a format that can be easily uploaded to the guidance service systems.

The FCA has stated that developing a template should be something the delivery partners and the industry (both contract and trust-based) should work on together to put in place as soon as they are able. As this work continues, the FCA will consider whether the use of such a template should be required in its rules or whether the industry and the delivery partners have developed an appropriate market solution that firms follow.

Timing of signposting

The FCA proposes that, unless the customer has requested a statement in the past 12 months, providers will have to signpost the customer to the guidance between four and six months before their intended retirement date (the date selected by the customer either at the outset of the pension contract or since - often termed the nominated retirement date or selected retirement date) and to remind them of this at least six weeks before the intended retirement date.

Providers will also be required to signpost their customers to the guidance if they contact the firm indicting they wish to access their pension fund (unless they have recently received a wake-up pack). The FCA believes that this will minimise the impact on firms as they can integrate it into their existing processes.

As April 2015 approaches there will be some customers who have received a wake-up pack that did not include the signpost to the guidance, and to whom there would currently be no requirement for the signpost to be sent later. The FCA proposes a transitional provision to require firms to send a wake-up pack that complies with the new requirements with the six-week reminder letter to ensure those who receive their wake-up packs before April 2015 still receive the signpost information at the six week reminder date.

The guidance service will be highlighted in the MAS leaflet that is referred to in the rules on the information to be included in the wake-up pack.

The FCA is giving on-going consideration as to whether, once the guidance service is more developed and demand is better understood, signposting should come at an earlier point will continue to consider as the guidance delivery model develops.

Effectiveness of the signpost

The FCA believes that pension providers, trustees and employers are likely to remain the first point of contact for their customers when they are starting to think about taking their pension.

The FCA concedes that it is right that providers should be able to speak to their customers about their options in general and about the products they can offer, but notes that concerns have been raised by many stakeholders that providers may seek to circumvent the spirit of the guidance guarantee.

The FCA believes behaviour of this kind is likely to breach the requirement to act in the best interests of customers (the client's best interest rule in COBS 2.1.1R) and the principle to treat customers fairly. The FCA proposes to add guidance setting out that firms should not do anything to actively discourage their customers from taking the guidance - this would include: holding themselves out as providing the guidance guarantee themselves, suggesting the guidance is unnecessary or not useful, or obscuring the information that customers need to enable them to access the guidance.

Communications outside the wake-up process

Providers already have their own processes for communicating with customers as they approach retirement and many begin this process well before the timing requirements for wake-up packs. The FCA believes there is a risk that the effectiveness of the guidance guarantee could be undermined if customers are not made aware of the availability of the guidance until they have already had a number of interactions with their pension provider about their options - and potentially have already made some decisions.

The FCA does not propose that providers should be prevented from having such discussions with their customers, or providing information that helps them with their decision making. However, the FCA feels it appropriate that, whenever a provider is communicating with their customers in relation to the options they have at retirement, they refer to the guidance being available.

The FCA does not propose that this requires the same content as the signpost, but that providers should explain that the guidance is available to help consumers understand their options at the point they are thinking about accessing their pension savings.

This requirement would also ensure those who have not responded to the wake-up pack communication and reminder as set out in COBS 19.4 would be reminded of the guidance in further communications from the provider, either reminding them that they have the pension or informing them of any contractual action that will be taken with the pension (e.g. some contracts set out that an annuity will be purchased at a certain age if no action has been taken by the customer).

Pension providers' communications with their customers

Providers are currently required to provide their customers with information about their ability to buy an annuity on the open market. The FCA proposes to amend our rules to make clear that the ability to shop around applies to any of the options an individual has.

The MAS Leaflet "Your pension: it's time to choose" covers all the options an individual has. This has been updated following the Budget announcements, and the FCA and The Pensions Regulator will work closely with MAS to ensure this leaflet is updated further so that information about the different options is clearly outlined for consumers. Firms are currently required to send this leaflet or provide the same information in another way.

The FCA's rules currently require firms to provide "a written summary of the retail client's open market option, which is sufficient for the client to be able to make an informed decision about whether to exercise, or to decline to exercise, an open market option". The FCA proposes changes to

clarify that this means information about the specific pension the individual has with that provider, along with general information about the options the individual has (which is covered by the MAS leaflet or the firm's own version of that communication).

The FCA also proposes to clarify in the rules what the information about the pension should include as follows:

- The current value of the pension fund.
- Whether there are any guarantees that apply to the pension.
- Any other relevant special features, restrictions or conditions that apply e.g. market value reduction ("MVR") conditions within with profits investments.

The FCA believes that these proposals make its expectations clearer and do not significantly change the impact of the requirements on firms. The retirement reforms themselves mean that firms have already made changes (and will make further changes for April 2015) to the information they provide to customers.

The FCA has been carrying out supervisory thematic work on how pension providers are selling annuities to their existing customers. Although the marketplace has now changed significantly, the FCA considers that many of the concerns that led to this review remain relevant. The concerns were around whether providers had unfair strategies or were using unfair sales techniques that were designed to retain customers.

The FCA's market study into retirement income will also try to understand how consumers, providers and distributors are likely to behave in the new market landscape to assess potential competition risks and vulnerabilities. As well as there being new issues that the FCA will need to consider, many of the features of the market the FCA is currently concerned about may continue.

The FCA has advised that it will look at the findings from the thematic review and consider whether additional rules or guidance would provide greater clarity about what firms should be doing in this area.

Taking an unsecured income from a pension

Where an individual chooses to purchase an annuity, the process for this will remain similar to the existing process (the FCA acknowledges that there may be product innovation in this area and has said that it will continue to monitor developments in this market). Where an individual is taking partial cash withdrawals from their pension or using drawdown, the parameters around that have changed.

From April 2015 there will be no requirement for consumers to ensure that the funds in their pension last for the rest of their life. However, the FCA believes it is important for consumers to understand the impact of making withdrawals over time on their remaining savings and their ability to go on making withdrawals. The FCA has asserted that current rules on income withdrawal address sustainability over time.

Advice on income withdrawals

The requirement to remain within the withdrawal limits when using income withdrawal has meant that advice has been a key feature of this market. With the new freedoms and the likely development of more mass market products the FCA believes that, in the future, products may be sold without advice or through different types of advice services.

The FCA has published a guidance consultation clarifying the types of advice that can be given under its rules, and has expressed the hope that this will encourage firms to develop a range of services that allow consumers to access the help they need in a cost effective way. For example, the FCA believes that firms could offer focused advice on retirement options for a fixed fee.

COBS 9.4.10G provides guidance on additional context to be given in a suitability report where an adviser recommends income withdrawals or short term annuities. The purpose of this is to make it clear to those taking the maximum level of income out of their pension pot that those levels of income may not be sustainable over the long term (i.e. they may run out of money). The FCA proposes to amend this to remove the reference to maximum withdrawal levels and to provide broader context about how sustainable the level of income being taken might be. The FCA also proposes to add to this guidance that the suitability report should give a description of the potential tax implications.

Illustrations for income drawdown

COBS 13 Annex 2 2.9R contains requirements for illustrations for income withdrawal. This includes a requirement to project the amount of income and the projected value of the fund at 5-yearly intervals. The purpose of this is to show the size of the remaining fund over time and when it is likely to be completely used up. It also requires a projection of the annuity that could be bought in ten years and the annuity the customer could buy today. The FCA asserts that this information is to help the consumer compare the impact of using income drawdown with securing an income through an annuity. (However, we would suggest to the FCA that taking a deterministic approach to path-finding when decumulating can be very hazardous and, as a result of failing to adequately describe downside risks, may provide customers with a false sense of security about the sustainability of income withdrawals.)

The FCA considers that all of these pieces of information will still be important and useful to someone considering income drawdown, and does not propose any changes to these requirements.

The requirements also refer to the maximum withdrawal limits, which will no longer be relevant. The FCA therefore proposes to remove this reference.

The FCA's requirements do not prescribe how this information should be presented to customers. The regulator has suggested that firms may wish to think about the way they present this information to ensure it is customer-focused, increases customer engagement, and enables their customers to understand the relevance of the information.

Planning for retirement

With regard to the information requirements that apply to pensions in the accumulation phase in light of the retirement reforms, the FCA does not believe that the content requirements for a Key Features Document (COBS 13.3.1R and 13.3.2R) for a pension need to be amended. However, firms may need to change the information they include in the document as a result of the reforms themselves coming in April 2015 to ensure they continue to comply with these rules.

The detailed content requirements for a projection for a personal pension scheme or a stakeholder pension scheme come from COBS 13 Annex 2 1.2R. This currently specifies that a projection of the benefits must be shown and that this must include the projection of an annual income (i.e. an annuity calculated on the basis of the rules set out in that annex).

The purpose of a projection is for an individual to understand the range and uncertainty of potential outcomes from their investment and to help them plan for the future. Most people find it difficult to think about their income needs in retirement and struggle to translate a lump sum into the concept of an annual income.

Therefore, although there will no requirement for consumers to ensure their fund lasts throughout their lifetime, the FCA believes that a projection of an annual income remains appropriate. The projection will also show the total fund, and the FCA believes that both the projection of annual income and the total fund are important items of information for customers, both in understanding the product they are buying and in planning for their retirement. (In this regard, in line with our commentary elsewhere in this document, in order that consumers and advisers can properly assess the value-for-money of propositions with a decumulation element, we strongly suggest that providers and advisers move towards using money weighted returns (IRRs) to describe outcomes and that, as far as possible, non-advised communications use such methodology so as to properly represent the totality of the projected benefit in consistent "money-in, money-out" terms.)

The FCA has suggested that firms may wish to think about the way they present this information to ensure that it is consumer-focused, increases customer engagement, and enables their customers to understand the relevance of the information.

The requirement for annual pension statements for both contract-based and trust-based schemes comes from DWP regulations requiring the Statutory Money Purchase Illustration to be sent. The FCA has discussed this with the DWP and understands that the DWP will be proposing changes in this area in due course.

Some stakeholders have commented to the FCA that the lifestyling applied within pensions is no longer appropriate, as the "end goal" for the accumulation phase should not be assumed to be an annuity. The FCA does not set any specific requirements relating to lifestyling, but does advise that providers should consider whether the lifestyling used within their funds remains appropriate, and that they also should consider what communications they make to their customers when the lifestyling starts.

The FCA expects that, over time, it may become clearer what decisions are most commonly being made at retirement, which will inform what default investment may be appropriate and that, in addition over time, as pensions built up under automatic enrolment become bigger, customers may become more engaged earlier in planning their options at retirement. On this basis, the FCA believes that firms should be encouraging their customers to engage in thinking about their retirement plans and options well in advance.

Customers taking action with their pension fund

The FCA does not believe that there should be a requirement for providers to check whether a customer has taken the guidance before they buy a product or take their cash. It is likely that firms will want, for their own purposes, to monitor how many of their customers use the guidance. The FCA has stated its belief that this would be helpful to firms in monitoring how effective their signposting is.

The FCA does not believe that firms should be required to check whether the decision being made by the customer aligns with the guidance they have received (i.e. that it aligns with the information they have provided about themselves and their circumstance). Where the firm itself holds information about the customer that indicates a potential inconsistency with the product they have chosen, they may wish to consider whether it is appropriate to query this with the customer.

Each of the options available to customers at retirement comes with different tax implications. For example, annuities are taxed as income; funds taken as cash will be taxed at the customer's marginal tax rate; and taking funds as cash or using income drawdown affects the ability to access tax-free cash from any additional pension savings made in the future.

The FCA believes it is important for customers to be reminded of the potential consequences, and so it proposes a new requirement on providers to provide their customers with a description of the

possible tax implications when they apply to access some or all of their pension fund using any of the options available.

There may be customers who take no action and do not respond to any communications made by the provider. Some firms have clauses in their contracts that mean they automatically annuitise pension customers at a certain age. Firms will wish to consider how they operate these contractual clauses in the new retirement landscape and ensure the processes around seeking to trace customers are appropriate.

TPAS guidance

TPAS resources

Our assumption is that the major part (if not all) of the guidance guarantee activity will be carried out by TPAS, which has a call centre currently staffed by 40 pensions experts (typically each having a minimum of 10 years' pension experience before joining), who have been handling about 80,000 enquiries a year, of which about 15% (12,000 a year) traditionally have related to annuities and retirement income.

TPAS interacts with members of the public by telephone, e-mail, post and, increasingly, instant messaging (which enables a TPAS expert to engage with multiple enquirers simultaneously).

TPAS is planning to increase its pension expert headcount to about 70 or so and, when it comes to the guidance guarantee, will be providing this service on an appointment basis.

One way or another, TPAS estimates that it will be able to handle up to 200,000 guidance guarantee enquiries each year.

TPAS guidance process

As at September 2014, subject to any scaling up of human resource to deal with likely increased demand for its services, TPAS appeared to be ready and able to fulfil its role with regard to the delivery of guidance, in line with the FCA's requirements set out above.

In line with the FCA's guidance delivery requirements set out above, TPAS will begin a guidance interaction by asking the caller about themselves, covering issues such as (but not limited to) whether they are married, whether working, income level, what pensions (potentially plural) they have, whether they have any debts and so forth.

Mindful of what has been gleaned about the individual during the fact find, and taking account of the level of understanding of pensions communicated by the enquirer, TPAS will then explain the technical background and set out, in broad terms, the options available. However, in accordance with the guidance delivery standards, TPAS service will not provide personal financial advice.

Summary

The TPAS guidance sessions are expected to conclude with providing the enquirer (by e-mail or some other means) with a brief written summary of what was discussed.

Next steps

In the majority of cases, the TPAS guidance engagement is likely to end with the organisation pointing the customer back to the life company/pension scheme and/or suggesting that they might want to seek independent financial advice.

TPAS' IFA quandary

TPAS is keen that, as far as possible, enquirers then go on to take independent financial advice. However, TPAS has been struggling to point enquirers in the direction of suitable advisers.

There are two main issues. Firstly, TPAS is unable to distinguish those advisory firms that have dedicated retirement planning capability (as opposed to, say, a mortgage broker that handles the odd annuity). Secondly, as TPAS has little knowledge of specific advisory firms, it will tend to be in the dark with regard to their various business models, including variations in depth and delivery of service (face-to-face, use of paraplanners, platform adoption, on-line etc) and economic model.

Money Advice Service ("MAS")

As at September 2014, although the Money Advice Service ("MAS") has been named as a guidance guarantee delivery partner, following several conversations with senior people in that organisation, it is not at all clear to us whether or how MAS would be able to fulfil the role as indicated within the FCA's consultation paper, CP 14/11, elements of which we set out above.

In particular, CP 14/11 states that the FCA will expect guidance delivery partners to "discuss [with the consumer] the relevant options, including the key facts and consequences and set out other issues for the consumer to consider", and for the delivery partner to take account of "the personal and financial information the customer has provider" before potentially setting out other issues for the customer to consider, as well as alerting customers to "areas that they may not have considered; for example longevity and the danger of running out of money during retirement, the possible impact of state benefits and possible long term care needs".

These FCA requirements would appear to demand direct human interaction between the delivery partner and the customer. However, the resource to enable MAS to interact knowledgably with pension customers currently does not appear to exist (as explained below) and, when asked about this apparent deficiency, MAS was unable to articulate a solution.

Web-based

At its core, MAS primarily is an internet-based guidance service which, to date, has tended to focus on the provision of generic information to more vulnerable groups, in particular to individuals who find difficulty in budgeting or coping with debt. MAS reckons that it has 16.5m "customer contacts" each year, with about 98% of these taking place over the web, where there is a range of content, including guides and interactive tools.

On-line pensions & investment resources

MAS' on-line pensions resources include information on pension basics, an explanation of auto-enrolment, and some generic information on retirement income basics as well as a list of possible sources of retirement income (such as annuities, drawdown, equity release, state pensions) and a brief description of each, as well as a simple explanation of the new decumulation rules.

There also is a pension calculator designed to provide members of the public with an estimate of their retirement income including that from workplace schemes, private pension contributions and the basic state pension. The tool also allows users to calculate the target income they would like to receive in retirement and highlights any shortfall as well as providing suggestions as to how to improve this.

As well as this, MAS provides broader on-line information about savings and investment, including explanations of what ISAs are and how they work, different types of investment (stocks and shares, trackers funds investment bonds, endowment policies etc), as well as tips on how to save, how to

know what risk you should take with your money, how to go about assessing financial performance, and what financial advisers do and how to find one.

MAS also hosts on-line comparative rate tables, covering savings accounts (deposits and ISAs), mortgages and annuity rates.

Telephone support

MAS has a team of 20 or so people providing telephone-based support (available 6 days a week, in addition to which "web chat" is provided 7 days a week) of what might be termed a "generic" kind, mostly involving helping callers digest and understand MAS' on-line content.

These telephone interactions mostly relate to budgeting and debt advice. Unlike TPAS, MAS does not have any pensions specialists and, to date, its telephone support in that area has been given by people with communications skills who have been trained in communicating pension basics.

Face-to-face counselling

In addition to its telephone support activities, MAS has a team of 100 face-to-face "advisers", who primarily are involved in providing budgeting advice and debt management support to more financially vulnerable groups in poorer regions of the country, holding sessions in Job Centres, Citizens Advice Bureaux and similar locations.

MAS, the guidance guarantee & adviser directory

MAS currently does not have any TPAS-type client-facing pensions experts, and we do not expect that this positioning will change.

One of MAS' key objectives is to "get people to take action to manage their money as a result of the Service" and, as far as the guidance guarantee is concerned, we anticipate that MAS will be looking to refresh its on-line pension content and, as appropriate guide enquirers to others, such as IFAs and TPAS, who can provide the requisite combination of technical knowledge combined with client-specific support.

In particular, MAS has committed to set up an on-line financial adviser directory, which has the aim of helping consumers find a regulated financial adviser as they approach retirement and beyond.

Advisers will not have to pay to be listed in the MAS directory. However, the criteria for inclusion will be established by an independent panel of consumer and industry representatives, which will decide whether the directory should contain details only of retirement specialists, or be opened up to include advisers covering all areas of regulated financial advice. The panel has been asked to agree on how fees and charges can best be incorporated into the directory, so that consumers can compare the costs of product and services more accurately.

Guidance guarantee take-up

As at September 2014, there was considerable uncertainty about the likely level of guidance guarantee take-up. A pilot run earlier in 2014 by a large insurer in conjunction with TPAS and a national IFA firm elicited a take-up. More recently, TPAS has been forecasting that the take-up rate could be 20% or so.

Given that many providers are now looking to engage with pension accumulation policyholders earlier and more often in the run-up to retirement (with a view, in most cases, of keeping them on the books in one form or another as they decumulate), and also bearing in mind that many adviser firms

will be viewing the Budget reforms as a major business opportunity as well as, in some cases, likely having consumers steered their way via the MAS directory, it does look as if the bulk of at-retirement customer interactions will, in the first instance, be with the provider or an adviser.

Join it up!

With providers, advisers, MAS and TPAS all making themselves busy, added to which the personal finance media will be very active, the danger is that some consumers will feel that they are pinballs, being ricocheted from one entity to another.

The "industry", government and agencies need to recognise that the new regime is (perhaps understandably) lacking joined-up infrastructure to provide middle-market consumers with the resources they need to make informed choices and achieve good outcomes. The direction of FCA regulation will be a major determinant in denying or providing mass market retirees with access to good quality decision-making support.

For many customers, the guidance process will be equivalent to an invigorating aperitif or a tasty appetiser, but the lack of joined-up follow-through and accessible advice resource will leave many hungry for more, frustrated, and asking "Where's the beef?"

Either through going directly or following stepping stone TPAS guidance, many consumers seem likely to contact their insurer in the expectation of being given "advice", although the question as to whether the provider is "advising" or "guiding" and whether the consumer thinks there is any difference is a huge worry for many insurers.

What is more, the depth and breadth of any insurer follow-up will vary hugely from one provider to another. Some with closed funds may have almost no resource whatsoever, while others (especially those open to new business) may have large call centres, some in-house (tied) advice capability and a range of products to offer.

Many customers will have two or more pensions from different providers and so, absent help from an IFA, the at-retirement decision-making problems are compounded.

Two-tier nation

The economics and compliance risks for IFAs mean that many middle-market customers will be unattractive to them, especially under the current regulatory regime, while providers currently (with a few exceptions) in general have little or (mostly) no capacity to provide advice.

Something needs to give to unshackle resource to provide the advice that will be much in demand by vulnerable middle-market customers, who otherwise will be at high risk of making inappropriate decisions that could be highly prejudicial to their financial and general well-being in retirement.

There is a strong danger that we end up with a two-tier nation, where the majority of retirees are effectively denied access to useful professional financial advice, with only a relatively small number of better-off consumers being able to avail themselves of the services of well qualified financial advisers.

Pharmacist v Harley Street specialist

To quote the song, "All or nothing at all" is where the current regulatory regime for advice seems to lead us. To make a health sector comparison, it is as if medical advice could only be given by leading (and expensive) Harley Street specialists who were required by law to undertake a full range of head-to-toe checks on the patient (CAT scans, eye tests, auditory perception, blood analysis, lung

performance, metabolic rate, liver function etc) and carefully consider all of these before, say, removing the patient's tonsils or prescribing cream for eczema.

Such an approach (as we effectively have in retail financial services) simply will not work, especially when every year we have something like 400,000+ retirees, most of whom are likely to be manifestly unattractive as candidates for full-on (relatively) expensive financial advice.

In the medical world, most of the time most people who have ailments undertake some self-diagnosis and go off to see the pharmacist, whose shelves are stocked with products, many of which are advertised on TV and in the press directly to the public.

Some of these products may be purchased by the consumer without intervention. Other products are stocked in sight but out of reach on a shelf behind the counter and, before proceeding with purchase, the consumer is asked a few simple questions to make sure they understand the remedy and its uses and, crucially, to ensure that any contra-indicators are clearly explained and understood.

The contra mantra

The FCA should consider modifying its approach so that advisers are less fearful of providing useful advice at lower cost to consumers. In contrast to the existing expensive "Harley Street specialist" model for financial advice, there should be scope for a financial services version of a "Boots the Chemist" model, similar to that under which a pharmacist intervenes and provides support around appropriate remedies for standard ailments, asking "are you pregnant, do you have diabetes, high blood pressure?" by way of a quick and cost-effective contra-indicator test.

A regime that provides advisers to provide useful generalised advice (for stylised client "types") using products and services that have been thoroughly CTF tested by providers, which in turn might provide a "product warranty", could help plug the advice gap.

In this vein, the way forward could be for the industry to develop a non-prescribed remedy approach for mass market products.

This would involve providers developing products aimed at serving particular needs for particular broad client types with some sort of provider undertaking/warranty that the products are fit for the indicated purpose.

Importantly, the products would come with clear "contra indicators" to reduce the scope for the mis-buying of propositions that are likely to do more harm than good. (In other words, the financial equivalent of "This will help reduce nasal and eye inflammation caused by hay fever, but do not take if pregnant or if you suffer from diabetes, and do give to children aged below 13".)

Examples of financial product contra-indicators could be plainly-stated warnings about risk to capital/income, volatility of returns, and impact on taxation and benefits. When it comes to financial communications, this isn't "all" but it is much better than "nothing at all".

These products could then be "dispensed" by advisers under a light touch, restricted-type communications regime (perhaps a decision tree approach such as described above, but without some of the current regulatory over-kill). This would be a similar approach to advice on medicines such as "Seek advice from a pharmacist, nurse of doctor, before taking this treatment if you are unsure whether it is appropriate for you".

On and on and on-going

A substantial proportion of those at retirement will live for 20-25 years or more and, in many cases, their lifestyles and living requirements will change considerably during that period, not least as a

result of infirmity. Accordingly, many consumers will need on-going in-retirement financial decision support to help optimise their resources to meet their changing needs and deal with challenges such as the persistent bite of inflation and the risk of outliving their money.

Durable relationships

With once-and-done lifestyling and annuity solutions likely to wane in popularity, the industry has much work to do in developing holistic propositions (products, advice and servicing) that endure through the lifetimes of retirees.

A particular danger is that advisers and providers continue in the "once-and-done" vein and put consumers into product strategies at the point of retirement but do not have the resource to provide on-going monitoring of the effectiveness of these and engage with consumers subsequently in recommend refinements and wholesale changes. Therefore, a question for consumers will be: "Will your adviser/provider be around and capable of providing me with on-going support for as long as I need it?".

Cognition & delegated authority

Over the next couple of decades, the UK will have increasing and unprecedented numbers of people at very old age, which is often accompanied by a diminution in cogitation capability. This presents challenges for the provision of financial advice to people with compromised comprehension.

Later on, on pages 43 to 46, we provide data on the scale and trend in dementia in the UK and the likely increasing use of property and financial lifetime powers of attorney and the appointment of deputies by the Court of Protection.

Given the combination of increased numbers of dementia suffered with decreasing use of annuities, provider, advisers, policy makers and regulators should be considering whether and how to realign business models, communication strategies, customer engagement best practice standards and regulation to accommodate this huge change in the client landscape.

SECTION 2

REGULATION OF ADVICE

"Now he's getting a tattoo yeah, he's getting ink done
He asked for a 13, but they drew a 31"

The Offspring

The FCA & the Vulcan Mind Meld

Can't touch this

In the UK we have plenty of highly qualified advisers well capable of providing "guidance" and advice to consumers seeking build up and draw down on pension savings.

The snag is that, one way or another (the general FCA adviser governance regime, and the banning of consultancy charging on workplace pensions), policy makers and regulators have contrived (no doubt inadvertently) to ensure that this substantial capability is kept well away from all but a small proportion of relatively well-off individuals.

Spot the difference

As far as its determination to root out any possible bias among advisers, it is increasingly difficult to distinguish between the FCA and Samuel L Jackson in "Pulp Fiction":

> "The path of the righteous man is beset on all sides by the inequities of the selfish and the tyranny of evil men. Blessed is he who, in the name of charity and good will, shepherds the weak through the valley of the darkness, for he is truly his brother's keeper and the finder of lost children. And I will strike down upon thee with great vengeance and furious anger those who attempt to poison and destroy my brothers. And you will know I am the Lord when I lay my vengeance upon you…
>
> I'm tryin', Ringo, I'm tryin' real hard to be the shepherd."

When it comes to the provision of decision-making support for retirement savers, the powers that be are in danger of making "good the enemy of the best".

An outside observer could be forgiven for placing the never-ending industry debates about where the line is drawn between "advice" and "guidance" in the same category as investigations as to how many angels can dance on a pin head.

Mr Spock will see you now

The FCA's "Guidance Consultation" 14/03 starts off in fairly promising fashion by stating that, "We know that firms want greater clarity about how they can help personal recommendation", and some encouragement may be had from the FCA's acknowledgement that, "firms…are struggling to navigate the options…such as simplified and limited advice services and sales without personal recommendations that involve guiding the customer in some way", and that "we are aware from feedback that we have received from both customers and the industry that a lack of clarity may be inhibiting the development of different sales models [which] may restrict engagement by customer [sic] with investments".

Sadly, the paper then descends into "metaphysics for dummies", in respect of which it is appreciated that the FCA is, to some extent, influenced by MiFID considerations. Try this on for size:

> "Some firms were unsure about exactly where the boundary sat between a service that involves giving a personal recommendation and one that does not… In particular, firms want to understand what is the driver for the FCA and the Financial Ombudsman Service (the

> ombudsman service) in deciding whether the firm has given a personal recommendation or not – is it the customer's perception or is it the substance of the actual service?...
>
> "CESR43 set out that a particular customer's understanding of the nature of the service they have received may not always be accurate…
>
> "Whether or not a particular client feels that he is receiving a personal recommendation will not determine, on its own, whether or not investment advice is actually being given….
>
> "Firms should be mindful that if a recommendation is put forward in such a way that a reasonable observer would view it as being based on a consideration of a customer's circumstances or presented as suitable, then this is likely to amount to a personal recommendation.
>
> "However, while the customer's own perception of the service received is very important, it is feasible that the customer will not always be correct in their understanding".

This seems like turning a decision tree into a decision forest, and is a sort of "Dungeons & Dragons" game for financial services lawyers and regulators, with the added twist that the adviser/provider needs to make a judgment as to what is in the eye of each beholder from time to time and, having successfully completed that circus act, needs to be mindful that the powers that be might form the conclusion that the (potential) customer might not have known his own mind, meaning that his perception was falsely predicated.

A major force for good

Fear and uncertainty with regard to the advice/guidance semantics is serving as a major impediment to the provision of and access to financial decision-making support to help retirees (many of whom struggle with basic financial concepts) optimise their finances in later life.

The FCA can be a major force for good by loosening its regulatory corsets and working with industry participants to craft a supervisory framework that has the delivery of enhanced consumer outcomes as its central objective, and which fits in with the changing world, where:

- platforms use is increasing apace;
- adviser numbers have been in decline;
- abolition of commission and banning of consultancy charging mean that it is not economic to provide "full fat" financial advice, especially the on-going stewardship that should be a part of continuing in-retirement counselling;
- providers and intermediaries more likely to need to co-operate to serve end consumers, for example in having hand-off procedures for to ensure continuity of monitoring of existing drawdown arrangements in the event of the retiral of servicing external advisers; and
- the demographic outlook raises new challenges in the provision of on-going products and services to elderly and infirm consumers.

Customers front & centre

Customers always should be front and centre, and the regulatory regime should be shaped with a view to providing the widest access to counselling to help the greatest number of them optimise their resources in their later years; the time of their lives when many of them will be at their most financially vulnerable.

SECTION 3

DIVORCE & HOUSEHOLDS

"I lost my lucky ball and chain,
Now she's four years gone,
Just five feet tall and sick of me,
And all my rattling on"

They Might Be Giants

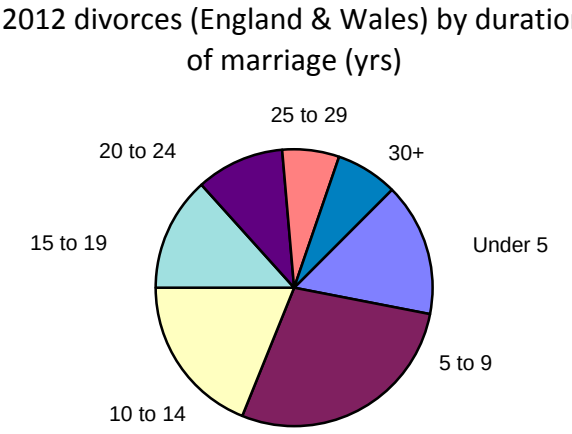
D-I-V-O-R-C-E

General trend

There were 118,000 divorces granted in England and Wales in 2012, in which year the rate in was 11 divorcing people per thousand married population.

The mean age for those divorcing in 2012 was 45 for men and 42 for women.

Duration of marriage



The median duration of a marriage for divorces granted in 2012 was 11.5 years. One-in-seven divorces were in respect of marriages that had been running for 25 years or more.

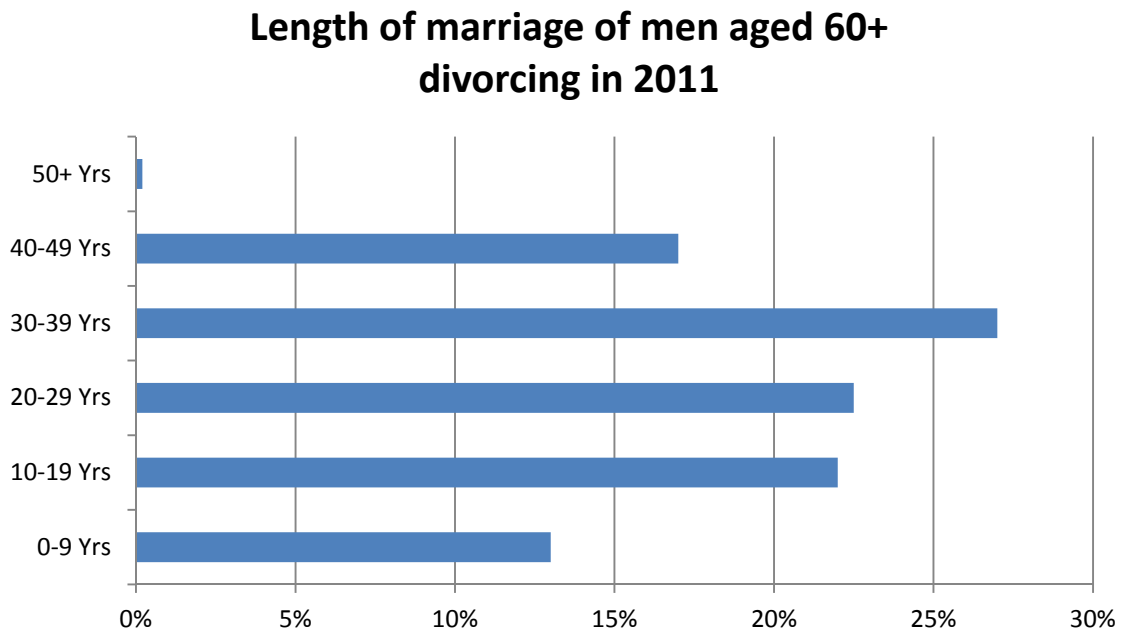
Increase in divorces among 60+ group

The overall number of divorces each year has been trending downwards over the past couple of decades (perhaps influenced by the rising prevalence of cohabitation in favour of marriage). In contrast however, decrees absolute have been on the increase among the over 60s. In 2012, 15,729 people of either gender aged 60+ got divorced, compared to 8,437 over 60s in 1990.

In 2012, 9,703 men aged 60 and over divorced, making for an 85% increase compared with 1990. Some 6,026 women in this age group divorced in 2012 compared with 3,191 in 1990.

Put another way, in 1990, there were 1.6 divorces per 1,000 married men aged 60+, and this had risen to 2.3 per 1,000 in 2012. There were 1.2 divorces per 1,000 married women over 60 in 1990, and this had risen to 1.7 in 2012.

Based on analysis of divorces in 2011, the average length of marriage for men aged 60 and over who got divorced in that year was 27.4 years. Women over 60 who divorced in the same year had been married for an average of 31.9 years. This difference is explained by the fact that husbands tend to be older than their wives, and so by age 60 women have been married for longer than men on average.



The table below plots the trend in the number of couples divorced by number of years of marriage.

Divorce and length of marriage (England & Wales)								
Year of marriage	*Percentage of couples divorced after…*							
	5 yrs	*10 yrs*	*15 yrs*	*20 yrs*	*25 yrs*	*30 yrs*	*35 yrs*	*40 yrs*
1970	5%	15%	22%	27%	30%	33%	34%	35%
1975	7%	18%	25%	30%	34%	36%	38%	-
1980	9%	21%	29%	34%	38%	40%	-	-
1985	10%	23%	30%	36%	40%	-	-	-
1990	11%	24%	32%	38%	-	-	-	-
1995	11%	25%	33%	-	-	-	-	-
2000	10%	23%	-	-	-	-	-	-
2005	8%	-	-	-	-	-		-

Petitions by men

As couples get older, men are more likely to initiate divorce proceedings. Across all age groups taken together, 35% of those granted divorces in 2012 were men, whereas for those aged 60 and over, men were just as likely to petition for and be granted the divorce as women.

1.3m divorcees aged 60+

The numbers of people in England and Wales aged 60+ who are divorced more than trebled from 404,000 in 1991 to 1.3m by 2011.

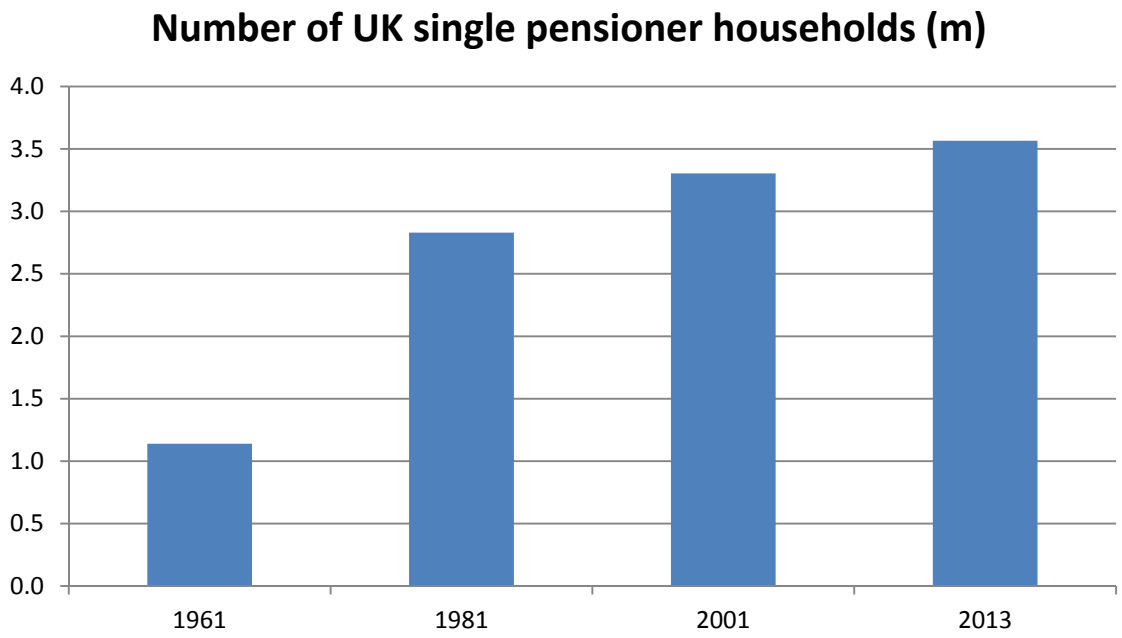
Fewer marriages ending in death

As noted above, there has been a steady and substantial increase in remaining life expectancy, such that a typical 60 year old man in England now could expect to live another 22 years (compared to an equivalent expectation of 18 years in 1991), with a similar trend observed for women.

The combination of increasing life expectancy taken together with the increase in divorce among those aged 60+ means that marriages are now more likely to end in divorce and less likely to end in the death of one spouse than was the case in 1991.

Single pensioner households

Over the last half century, the broad trend in divorce taken combined with increased life expectancy has led to a near doubling in the percentage of households comprised of a single pensioner, while the number of single pensioner households has trebled, from just over 1m in 1961 to more than 3.5m in 2013.

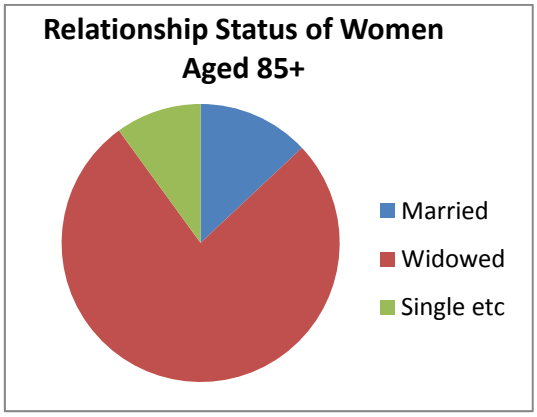


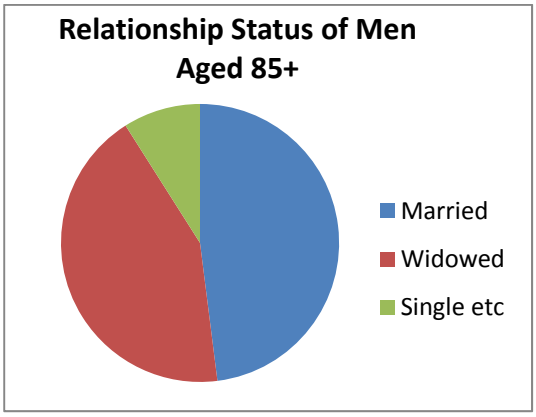
The table below sets out recent estimates of the marital status of those aged 55 and over in England and Wales. Note the higher numbers of divorce(e)s among the younger age groups which, in time, will likely push through to older lives.

Mid-2010 population of England & Wales by age and marital status ('000)								
Sex and status	*55-59*	*60-64*	*65-69*	*70-74*	*75-89*	*80-84*	*85-89*	*90+*
Men								
Single	183	147	93	69	53	36	18	14
Married	1,104	1,217	953	776	572	348	164	45
Widowed	29	53	66	92	119	136	115	61
Divorced	236	218	142	94	54	26	9	2
Women								
Single	121	90	60	53	50	46	34	24
Married	1,106	1,183	881	658	435	231	90	31
Widowed	84	155	216	314	413	466	403	252
Divorced	295	280	186	129	80	44	19	2

Source: ONS

According to the 2011 Census, for every 100 women aged 85 or over, 77 were widowed, 13 were married and 10 were either single, separated or divorced. Out of every 100 men aged 85 and over, 43 were widowed, 48 were married and 9 were either single, separated or divorced.





The trend for being home alone in one's twilight years, with the increasing likelihood of infirmity during an increasing lifespan, will lead to a much greater call on welfare services than anything that has been witnessed hitherto.

In 2011, among those aged 85+ some 24% of men and 26% of women reported that they had bad or very bad health.

No place like home

For many people of advanced years the place that they live is literally no place like home, being residential nursing accommodation. Older single people are much more likely to be institutional residents than those who are married. Given the projections of increasing numbers of older people living on their "ownsome", this is a big area of concern for policy makers (of both the governmental and insurance variety).

In 2011, about one-in-ten men and one-in-five women aged 85 and over lived in a communal establishment, with the remainder living in a private household.

SECTION 4

LIFE EXPECTANCY & HEALTH

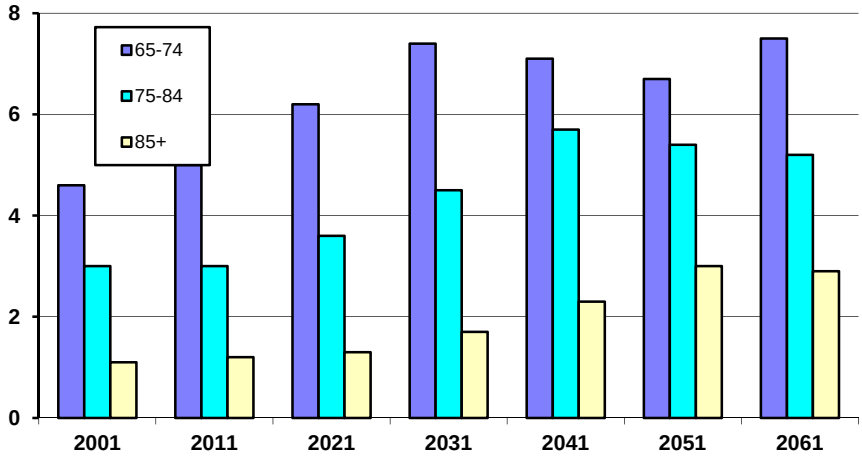
"Oh my darling tell me when,
Tell me quando, quando, quando"

Engelbert Humperdinck

Life Expectancy

Boom!

The chart below shows the actual and projected progression of the number of people aged 65 and over in the UK from 2001 to 2061, during which time the number of those in that age bracket is set to almost double, from 8.7m to 15.6m.



This huge increase in senior citizens which, even before the 2014 Budget changes, provided major challenges for society as a whole as well as an enormous opportunity for financial services providers and advisers, is mostly driven by the ageing of the "baby boomers" (those born between 1945 and 1966), taken together with substantial increases in life expectancy.

Life expectancy

Pension annuities ensure an income for the life of the annuitant. The Budget reforms have sparked much interest around the question "how long will I live in retirement?".

When, in 1889, Otto von Bismarck (aged 74 at the time) introduced the concept of a minimalistic state retirement pension, aimed at the relatively very poor and payable from age 70 (subsequently reduced by the German Government to age 65 in 1916), only a very small percentage of the population survived to that age (average life expectancy at birth was just 45 years), and those who did make it to see that milestone had a remaining life expectancy of just two more years on average.

The US Social Security system that provides a pension from age 65 was set up in 1935, at which point average life expectancy at birth was 62.

Given that many now approaching retirement were brought up on the notion of "three score years and ten", the current UK reality may come as something of a shock, with both pleasant and perplexing connotations.

Interim life expectancy

The table below (based on interim life tables for England and Wales) illustrates the trend in remaining life expectancy for men and women having reached 60 and 70.

Expectation of life (remaining years) at selected ages attained				
Year	*Male*		*Female*	
	Aged 60	*Aged 70*	*Aged 60*	*Aged 70*
1971	15.3	9.5	19.8	12.5
1981	16.4	10.1	20.9	13.4
1986	16.9	10.5	21.4	13.9
1991	17.8	11.2	22.0	14.4
1996	18.6	11.6	22.5	14.6
2001	19.9	12.5	23.2	15.2
2011	22.3	14.6	25.2	16.8

Source: GAD ("Years" are mid-years)

Going out to age 80, males in England & Wales currently have an expectancy of a further 8.2 years, while women have an expectancy of another 9.6 years.

Looking back over the past four decades or so, there has been a substantial increase in remaining life expectancy for those in or near the retirement zone. Remaining life expectancy for males at age 60 has increased by almost 46% (equivalent to 7 extra years) between 1971 and 2011, while males aged 70 are expected to live almost 54% (5 years) longer.

Improvement in remaining life expectancy (%) 1971/2011		
Age attained	*60*	*70*
Male	45.8	53.7
Female	27.3	34.4

Source: GAD

These influences have contributed to the steep decline in annuity rates witnessed during the past couple of decades, meaning that bond yields and longevity can be far more influential in determining in-retirement income than accumulation-cycle investment performance and product charges.

I know a bloke…

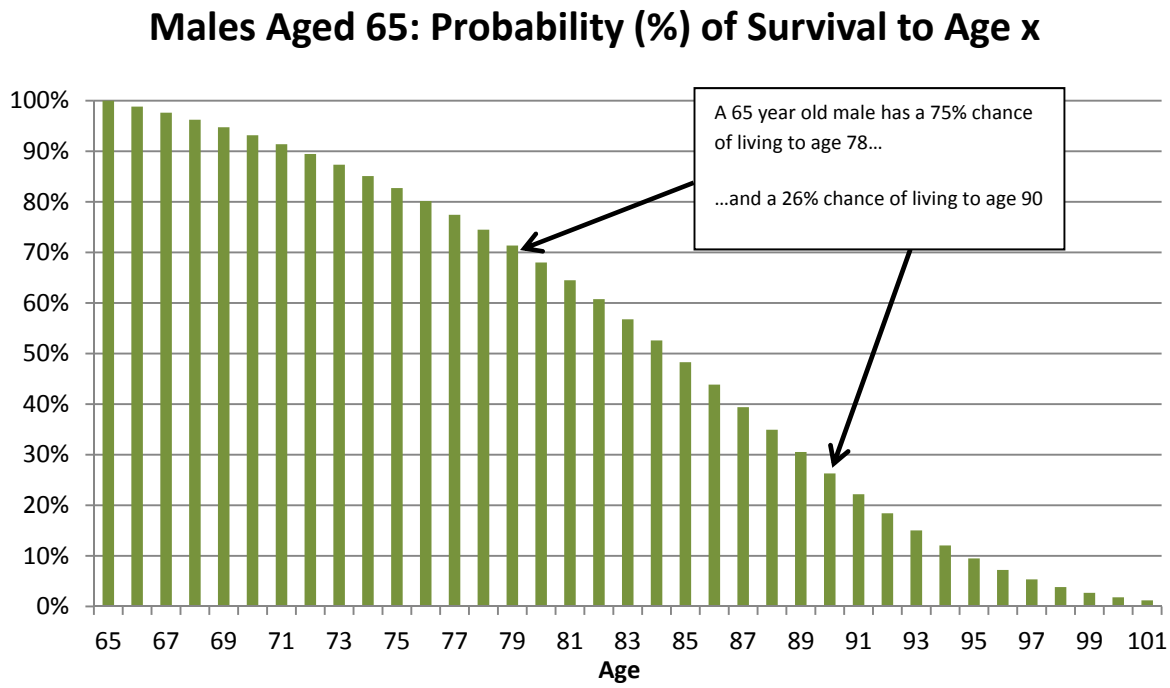
Saloon bar discussions about life expectancy sometimes end up with participants vying for story-telling supremacy with regard to exceptional cases, such as the man (a vegetarian), fit as a fiddle who played squash twice a week, jogged every day, ran half marathons, did not have an ounce of fat on him, never touched a drop and did not smoke, but who keeled over and popped his clogs just like that and he was only 45.

Another archetype is 17 stone Bert, who has smoked 40 Players Navy Cut every day since he was 15, wolfs down a "full English" for breakfast and again for his tea and is a fixture come rain or shine in "his" seat at the bar of the Dog & Banjo where, notwithstanding mild diabetes, he routinely polishes off 10 pints of mild a day and is still going strong at 89.

Of course the current 18 year remaining life span of a 65 year old man is simply an average expectation.

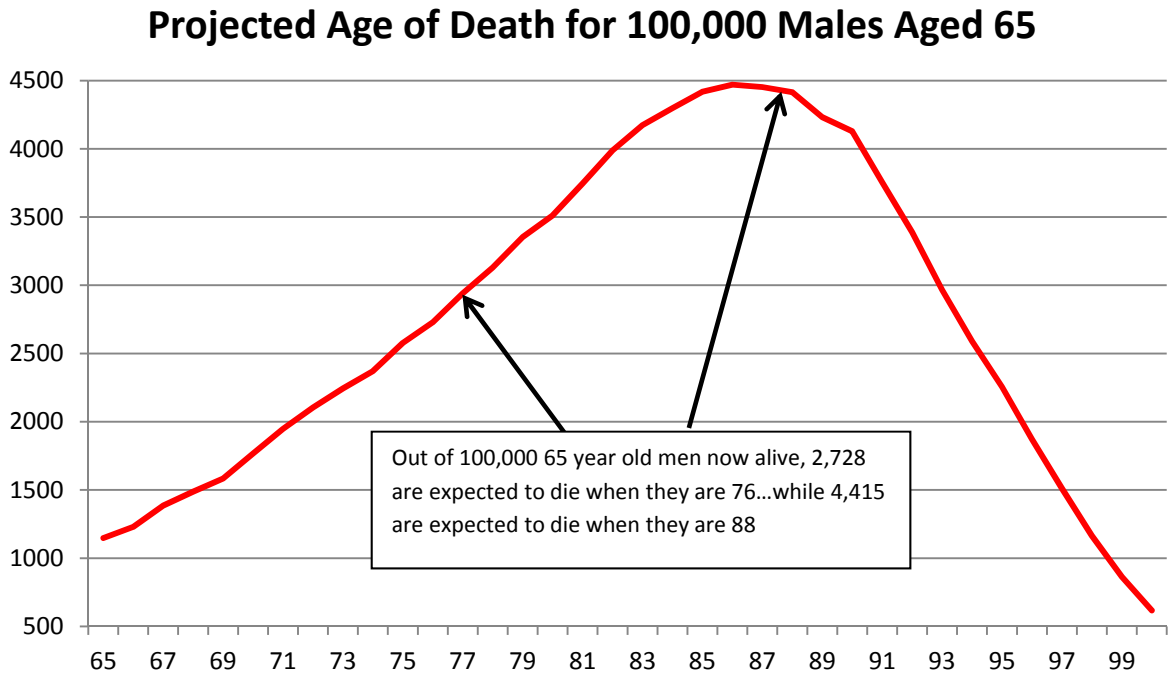
The next chart below (based on 2010-2012 GAD life expectancy tables) shows the probability of a 65 year old man surviving to a given age.

The GAD data show that the average remaining life expectancy of 65 year old males is 18.2 years and, in percentile terms, they have a 55% probability of surviving to 83, and a 50% probability of surviving to 84.



What the data also show is that the probability of a 65 year old not surviving beyond 68 is 5%, while one-in-five will not survive beyond age 80. About one-third of 65 year old men are expected to live 5 years longer than the average life expectancy (i.e. to survive to 88), while fewer than one-in-six are expected to live 10 years longer (i.e. survive to 93) than the average life expectancy.

It is worth bearing in mind these probabilities when considering the risk of a client outliving their retirement savings, and the relative value from annuitising (which we will cover in more detail later).



We can use the same GAD data to show the probable distribution of deaths by age for 100,000 males now aged 65, shown in the "curve of deaths" chart above. For example, of 100,000 males now aged 65 almost 2,000 will die when they are 71, 4,000 will die when they are 82, and just over 1,500 will

die when they are 97. On the same basis, one-quarter of 65 year old males will not live beyond age 77, half will die before they reach age 84, and four-out-of-five will not live beyond 90.

Couples

For couples near, at or in the retirement zone the chances are that, based on current longevity expectations, the chances are that it will be a very long time before both of them are laid to earth.

A couple where both are aged 65…

- has a 50% chance of one of them reaching age 90
- has a 25% chance of one of them reaching age 97
- has a 17% chance of one of them reaching age 100

Regional variations

Going back to average life expectancies as set out in the tables above, there are significant regional differences. According to the latest GAD projections, a typical 60 year old Englishman might expect 18 more months of remaining life than a Scotsman of the same age.

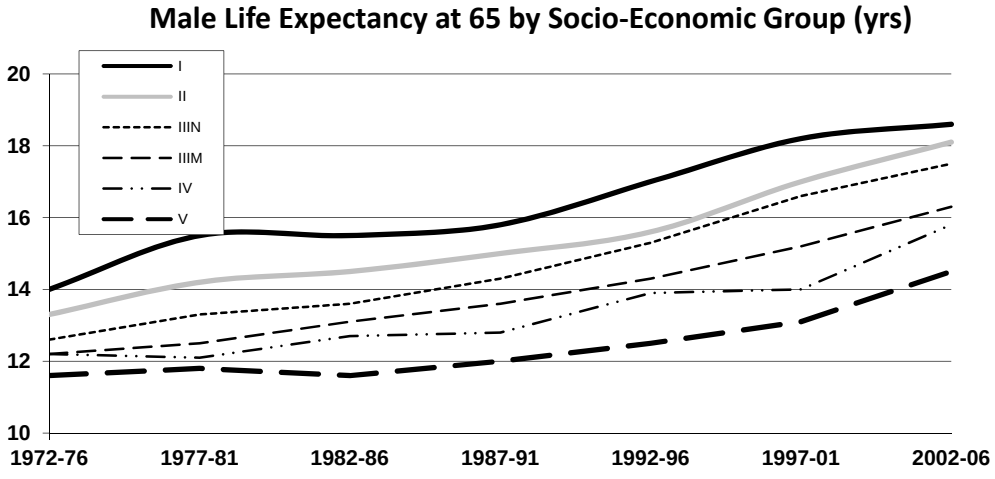
A few years ago Prudential, based on GAD interim life tables 2000-2003 for ages 60-95, calculated that, if the mortality score was 100 for the UK as a whole, it reduced (people living longer) to 98 for England, but was higher (people not living as long) elsewhere at 102 for Wales, 104 for Northern Ireland and 114 for Scotland.

Digging deeper into English and Welsh mortality using ONS death registrations for 2003, if England and Wales as a whole had a score of 100, then south-east and south-west England scored 93 (i.e. people lived longer than the average), London scored 97, the West Midlands scored 104 (people did not live as long as the average), and north-east England rated 112.

Such geographical biases (on a more refined and localised basis using post codes) are now commonly used by annuity providers to set annuity rates.

Socio-economic influences

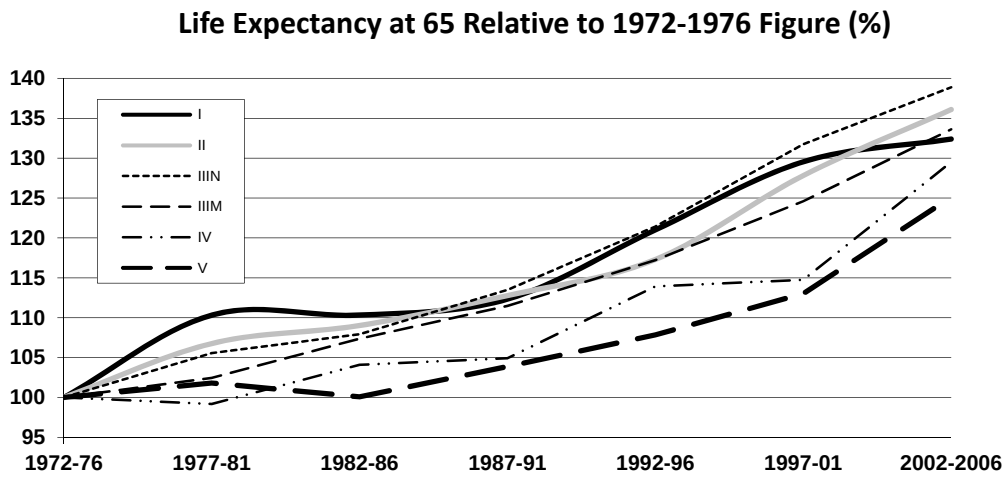
Other influences on how long someone will live in retirement include their salary level and occupation.



To illustrate the impact of socio-economic group on longevity, the chart above, derived from the ONS Longitudinal Study, plots changes in remaining life expectancy for 65 year old men grouped into 6 socio-economic classes ("I" representing "professionals" is the highest, and "V" representing unskilled manual workers is the lowest) as observed from the early 1970s to the mid 2000s. Clearly, those in higher socio-economic class groupings live longer than those in lower groupings.

It is believed that membership of a particular socio-economic group is not of itself a direct cause of longevity variations, but is an indicator of behaviours (such as diet composition and propensity to smoke) that in turn affect life expectancy.

We have seen from the interim life tables above that remaining life expectancy for those in or near the retirement zone has been increasing steadily over many years, and it is expected that this trend will continue into the future, which is something that annuity writers take into account when setting rates and managing liabilities.



The chart above (also based on the ONS Longitudinal Study data) tracks the rate of improvement in life expectancy for each socio-economic class at various times compared to the 1972-1976 starting point. Note that, taken to 2002-06, the rate of improvement for socio-economic classes II, IIIN and IIIM has been faster than for class I.

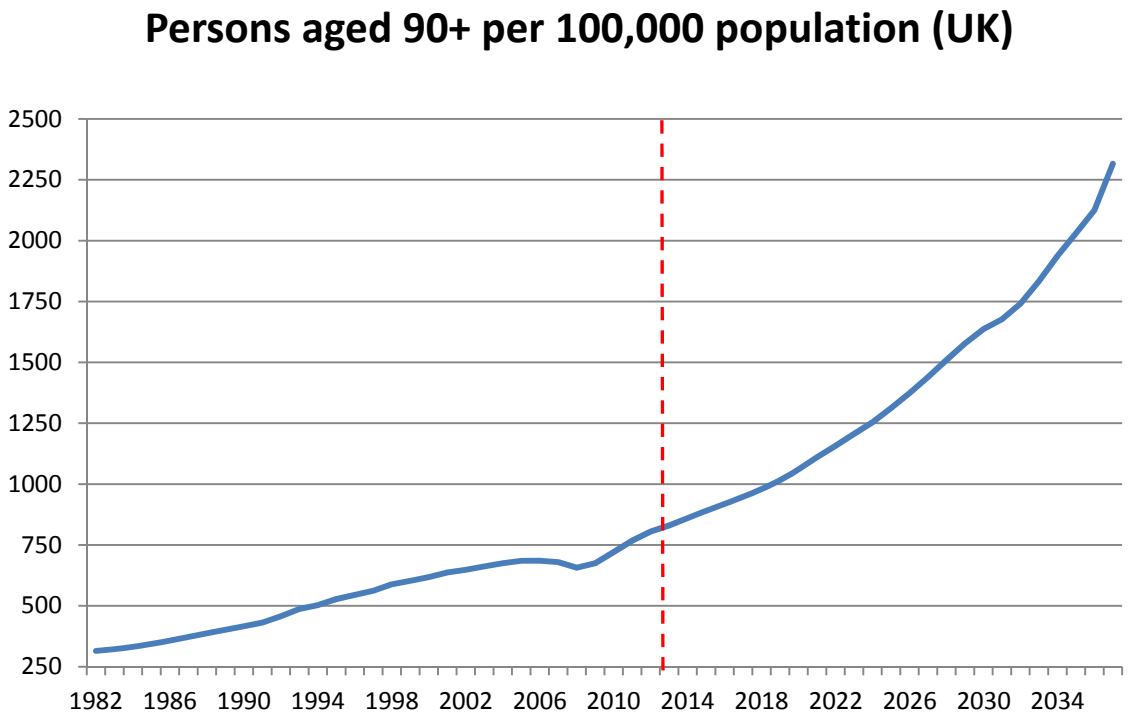
The use of socio-economic/job status indicators is now commonplace in the bulk annuity sector where insurers provide buy-out, buy-in or longevity swap solutions to final salary pension schemes looking to reduce or eradicate their exposure to longevity risk, and is also used to some extent in the individual annuity market.

Sometimes, "short cuts" such as annuity purchase pot size are used as an indicator of socio-economic status.

Whether the arrangement is a workplace one or an individual one, these days, per pound of annuity pot the 60 year old banker from Beaconsfield or architect from Alderley Edge is likely to be offered a much lower annuity rate than a plasterer from Possilpark or labourer from Ladywood.

Very old indeed

The chart below shows the progression in the number of persons aged 90+ as a percentage of the population in the UK, which has grown from 315 per 100,000 in 1982 to 806 per 100,000 by 2012, and is set to surge to more than 2,300 per 100,000 population by 2037, by which time almost 30% of the UK population will be aged 60 or over. (Note that the dip that took place after 2006 arises from the impact of World War I.)



The total number of people in the UK aged 90+ has risen from 67,000 in 1971 and 228,000 in 1991, more than doubling since that point such that, by 2012, the total number of people aged 90+ had reached 513,000, of which 79% were aged 90-94, 18% were aged 95-99, and 3% (equivalent to more than 13,000 people) were aged 100+.

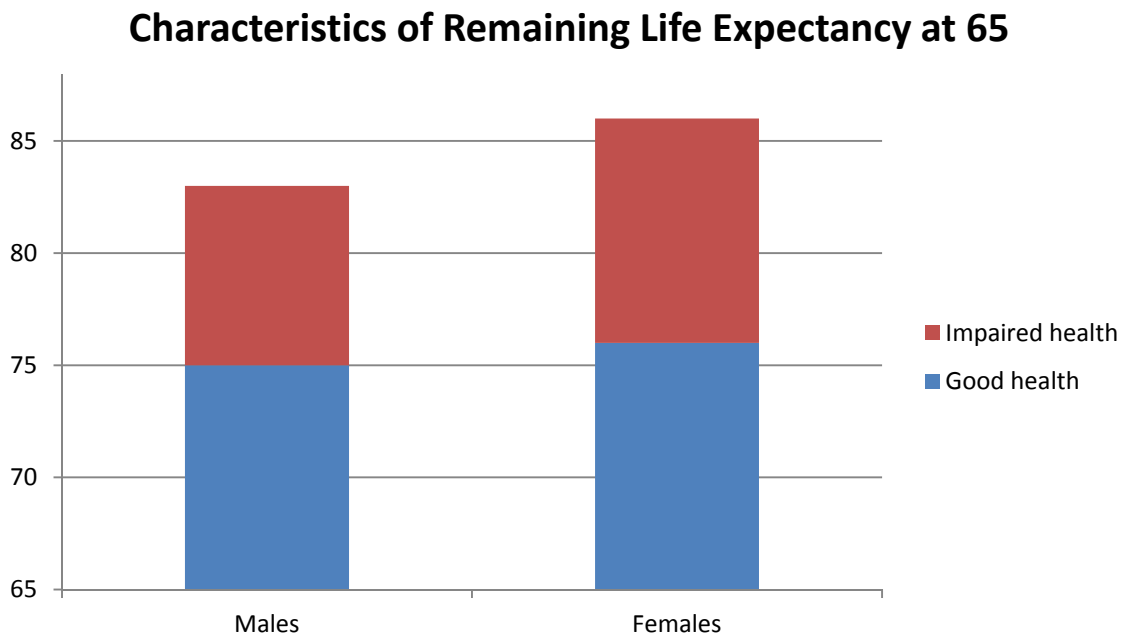
Given the push-through of the baby boomers, the number of those aged 90+ is projected to increase to more than 1m by 2027, and be nudging 1.7m by 2037.

Health & Cognition

Never mind the width, feel the quality…

So far we have been concerned with how long someone might live in retirement, which has major implications for decumulation advice and ensuring that retirees do not out-live their savings, at the same time as ensuring that their investment strategies deliver the best value for money, notwithstanding uncertainty around longevity.

We now turn to quality of life in retirement. According to ONS data, a 65 year old man with a remaining life expectancy of 18 years could expect the first 10 years (up to age 75) to be characterised by good general health free from a limiting persistent illness or disability, with the remaining 8 years in less good health.



For 65 year old females, where life expectancy is 21 years, the first 12 of those are expected to be marked by good general health free from a limiting persistent illness or disability.

I've got the hippy hippy shakes

The tendency for older people to be more inclined to aches, pains and worse is borne out by the following table which is based on self-reported days of "restricted activity" owing to illness or injury per person per year.

Annual days of restricted activity per person per year (2011): GB				
Gender/age	*16-44*	*45-64*	*65-74*	*75+*
Male	14	32	35	45
Female	21	37	47	47

Source: General Lifestyle Survey

The table below plots the proportion of those aged 16 and over who reported selected longstanding illnesses in 2011. Please note that a person might have reported two or more such illnesses so that the total is not the sum of the illustrated conditions.

Chronic sickness: rate per 1,000 reporting selected longstanding conditions by age and sex in 2011 (GB)								
Type of condition	*Males*				*Females*			
	16-44	*45-64*	*65-74*	*75+*	*16-44*	*45-64*	*65-74*	*75+*
Musculoskeletal	44	158	199	242	58	204	318	349
Heart and circulatory	15	146	285	341	19	84	225	298
Respiratory	42	54	94	91	48	70	82	69
Endocrine and metabolic	21	79	125	132	28	78	111	136
Digestive	16	33	36	41	17	29	38	52
Nervous	14	31	39	54	23	40	47	33

Source: General Lifestyle Survey

Note that women are more prone to affliction with musculoskeletal complaints, and that men tend to record higher scores for heart disease, stroke and respiratory disorders, perhaps influenced in part by the historic greater tendency for men to smoke.

This is part of the narrative that "life is not a straight line" and, ideally, retirement planning arrangements should incorporate flexibility to help meet any additional expenses arising from a sustained period of later life ill health. The question of care costs looms large, especially given a) the strain on the public purse, and b) the increasing number of pensioners in "home alone" households, fuelled in part by trends in divorce, which we looked at in the section on divorce, above.

Help me if you can, I'm feeling down

Number of clients aged 65+ receiving CASSR services by type in year ending March 2014: England				
Client type	*Total residents*	*Community-based services*	*Residential care*	*Nursing care*
Physical disability	687,115	567,880	104,265	54,800
…of which				
Physical disability, frailty	572,005	472,450	86,605	46,250
Hearing impairment	13,940	11,865	2,020	780
Visual impairment	19,945	16,615	3,060	1,305
Dual sensory loss	3,570	2,960	565	235
Mental health	130,005	77,445	47,170	20,055
of which				
Dementia	79,905	44,240	32,165	13,840
Learning disability	15,670	9,920	6,180	905
Other vulnerable people	16,495	13,345	2,705	1,285
Total of all client types	**849,280**	**668,515**	**160,420**	**77,045**

Source: Health & Social Care Information Centre

The table above shows the numbers of those aged 65 and over receiving services provided by Councils with Adult Social Services Responsibilities ("CASSRs") in England in the year to March 2014.

The next table breaks down local authority supported residents aged 65+ in England as at March 2014 by age band, whether temporarily or permanently resident, and the type of accommodation.

Local authority supported residents aged 65+ by age group & type of accommodation (Mar 2014): England				
Age & category	*Total residents*	*Residential care*	*Nursing care*	*Adult placements*
Aged 65-74	24,100	15,550	7,645	905
Permanent	22,615	14,430	7,385	800
Temporary	1,490	1,125	265	100
Aged 75-84	52,855	34,360	17,515	975
Permanent	49,555	31,745	16,900	910
Temporary	3,295	2,615	615	65
Aged 85+	91,755	65,365	24,790	1,600
Permanent	87,225	61,705	24,020	1,500
Temporary	4,530	3,665	770	100
All aged 65+	**168,710**	**115,280**	**49,950**	**3,480**
Permanent	**159,395**	**107,875**	**48,305**	**3,210**
Temporary	**9,315**	**7,405**	**1,645**	**265**

Source: Health & Social Care Information Centre

Immediately below, we now break down the data to show local authority supported residents aged 65+ by type of accommodation and disability.

Local authority supported residents aged 65+ by of accommodation & primary client type (Mar 2014): England					
Client type	*Total residents*	*Residential care:*		*Independent nursing care*	*Adult placements*
		Local authority	*Independent*		
Physical disability	101,235	4,495	62,625	31,955	2,165
Mental health	45,525	1,665	30,230	12,950	680
Learning disability	6,025	200	4,680	610	535
Other vulnerable people	2,285	135	1,495	605	50
Not allocated	13,645	805	8,960	3,835	45
Total	**168,710**	**7,295**	**107,985**	**49,950**	**3,480**

Source: Health & Social Care Information Centre

Cognition challenge

The tide of demographics means that we have increasing and unprecedented numbers of people at very old age, when cognitive competence declines markedly for many people.

Age profile of dementia suffers in 2014 (UK)					
Age group	*Total*	*Women*		*Men*	
		Number	*Ratio*	*Number*	*Ratio*
U 65	42,325	20,806	1 in 708	21,519	1 in 659
65-69	57,753	32,286	1 in 56	25,467	1 in 67
70-74	77,376	40,126	1 in 33	37,250	1 in 32
75-79	125,673	75,093	1 in 15	50,580	1 in 19
80-84	172,227	105,187	1 in 9	67,040	1 in 10
85-89	170,750	118,932	1 in 5	51,818	1 in 7
90-94	124,753	96,517	1 in 3	28,236	1 in 4
95+	44,969	38,288	1 in 2	6,681	1 in 3

Source: Alzheimer's Society

A breakdown of current dementia suffers by age grouping is set out in the table above. According to the Alzheimer's Society, every year in the UK 225,000 people develop dementia (mostly Alzheimer's

disease, caused by changes in the structure of the brain and a shortage of important chemicals that help with the transmission of messages), while 850,000 people currently suffer from dementia in the UK, with this number projected to rise to 1.1m by 2025, and surpass 2m by 2051.

Given that, in future, many more people will not have purchased annuities (that "carry on regardless") one of the challenges facing the industry and government is how to provide on-going financial advice/guidance in respect of more flexible in-retirement propositions that may need regular review and refinement to those consumers that may have increasing difficulty in engaging with the process, forming sound judgments and making confident, well-informed decisions.

This is not just an issue for the "active planholder", but also arises where the decision-making spouse dies and the (previously) less or non-engaged widow/er is expected to step into the deceased's financial planning shoes.

This competence issue has some suggesting that some approaching "very" old age (mid/late 70s, say) might be best advised to purchase an annuity-type product at that time in part to remove the risk of otherwise being in more complex financial arrangements that they increasingly might struggle to keep up with. We consider the potential development of a later life individual annuity market in the section on pages 74 to 77.

Mental capacity & decision-making

Given the increasing numbers of people aged over 65 and the inevitable rise in the count of those suffering from dementia, in a world where many fewer people will have annuitised, it is more important than ever for advisers and their clients (and their clients' families) to understand the framework that governs financial decision making for those with restricted mental capacity.

Mental Capacity Act 2005

The Mental Capacity Act 2005 applies in England and Wales (different arrangements apply in Scotland and Northern Ireland) and is designed to protect and support individuals aged 16 and over who do not have the ability to make decisions for themselves.

According to the Alzheimer's Society, to have mental capacity, a person must be able to:

- understand the information that is relevant to the decision they want to make;
- retain the information long enough to be able to make the decision;
- weigh up the information available to make the decision;
- communicate their decision by any possible means, including talking, using sign language, or through simple muscle movements such as blinking an eye or squeezing a hand.

But note that the mental capacity of a person with dementia will fluctuate, even during the course of a day.

The Mental Capacity Act provides that people who support or make decisions on behalf of someone who may lack mental capacity must follow five main principles:

1. Every adult has the right to make decisions for themselves. It must be assumed that they are able to make their own decisions, unless it has been shown otherwise.
2. Every adult has the right to be supported to make their own decisions – all reasonable help and support should be provided to assist a person to make their own decisions and to communicate those decisions, before it can be assumed that they have lost capacity.
3. Every adult has the right to make decisions that may appear to be unwise or strange to others.

4. If a person lacks capacity, any decisions taken on their behalf must be in their best interests. (The act provides a checklist that all decision makers must work through when deciding what is in the best interests of the person who lacks capacity – see below.)
5. If a person lacks capacity, any decisions taken on their behalf must be the option least restrictive to the person's rights and freedoms.

Anyone making a decision on behalf of a person they believe to lack mental capacity must do so in that person's best interests. To work out what is in the person's best interests, the decision maker must:

- not assume the decision should be based on the person's age, appearance, condition or behaviour;
- consider if the decision can be postponed until the person has sufficient mental capacity to make the decision themselves;
- involve the person who lacks mental capacity in the decision as much as possible;
- find out the person's views (current or past), if possible, and take these into account;
- consider the views of others, such as carers and people interested in the person's welfare, where appropriate, and take these into account;
- not be motivated by a wish to bring about the person's death if the decision relates to life-sustaining treatment.

Once the decision-maker has considered the relevant information, they should weigh up all the points and make a decision they believe to be in the person's best interests.

Advance planning

Increasingly, advisers and provides will have clients with restricted mental capacity, and so will need to become familiar with and have systems and procedures that are mindful of and accommodate advance planning tools.

Property & Affairs Lasting Power of Attorney

A Property & Affairs Lasting Power of Attorney is a legal document (required to be registered at the Office of the Public Guardian before it can be used) that gives the attorney(s) the power to make decisions about a person's financial and property matters, such as managing a bank account, operating an income drawdown strategy, or selling a house, although note that the person making the Property & Affairs Lasting Power of Attorney can place restrictions on the powers granted to the attorney or place conditions on what they do.

Deputies & the Court of Protection

While the Court of Protection has the authority to make official decisions ("orders") about any healthcare, welfare or financial matters, person (a friend or relative, or possibly a professional adviser) can apply to the Court of Protection to be appointed a "deputy", empowered to make decisions for those who lack capacity to do so for themselves, especially where no formal legal arrangements (such as a Lasting Power of Attorney) have been made.

Deputies are required to make decisions in the best interests of the person lacking capacity, and may be active in one-off "transactional" matters such as dealing with the redemption of an insurance policy or selling a house, as well as more complex and on-going dealings requiring a series of actions over a long period.

SECTION 5

INFLATION

"You know the nearer your destination,
The more you're slip sliding away"

Paul Simon

Inflation

The thief that keeps on taking

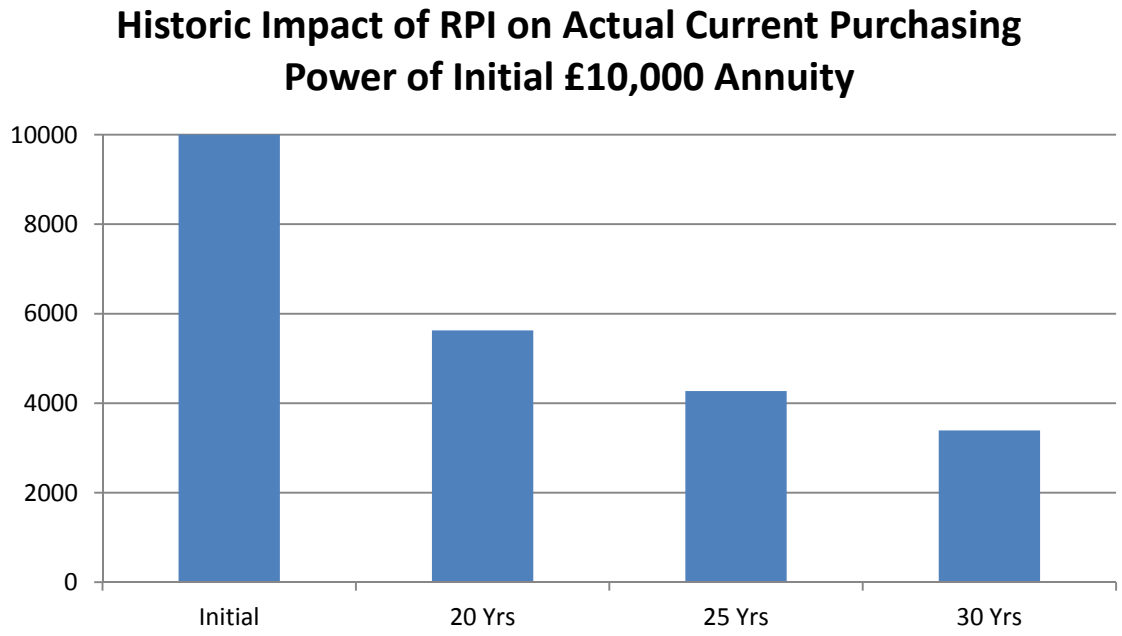
A sure-fire and perhaps the biggest risk facing retirees is inflation, which even at very low levels (compared to what those approaching retirement will have experienced in their lifetimes) can have a devastating effect on living standards over time.

Over 20 years, the impact of rising prices on a fixed income (such as a level annuity) is as follows:

- 2.0% inflation reduces real income by one-third
- 3.5% inflation reduces real income by one-half
- 5.0% inflation reduces real income by two-thirds

The effect of compounding means that the problem gets worse the longer that people live, so that a person who took out an annuity paying £10,000 at age 60 and who is now 85 would have found that their inflation-adjusted purchasing power had fallen to £6,000 if inflation averaged 2.0% during their retirement to date, to just over £4,000 if inflation had averaged 3.5%, and would be less than £3,000 if inflation had averaged 5.0%.

Going down

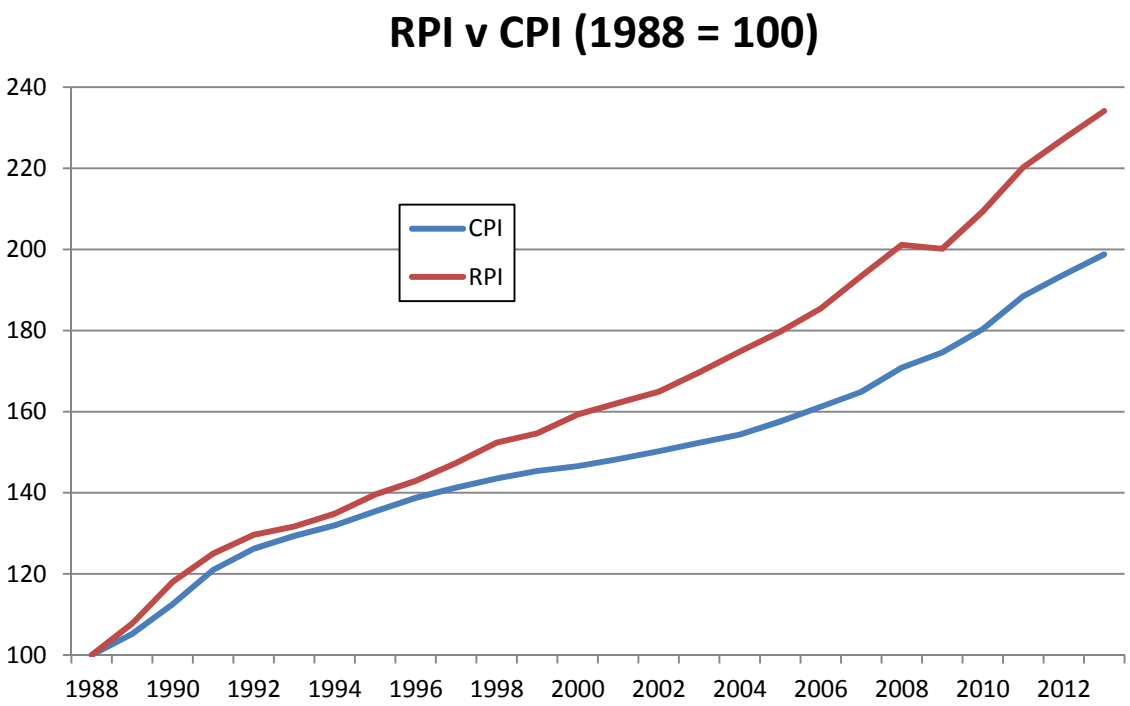


The chart above shows the impact of actual inflation (RPI) on the real purchasing power of £10,000 level annuities taken out 20, 25 and 30 years ago. The purchasing power of a £10,000 p.a. level annuity starting in 1994 has fallen to £5,600 today, while the real value of a £10,000 level annuity that started in 1984 would have slumped by two-thirds.

RPI v CPI

In the chart above showing the actual impact of inflation on fixed income over the past 20, 25 and 30 years we used the Retail Price Index ("RPI") instead of the Consumer Price Index ("CPI").

There are some significant differences in the baskets of goods and services measured by each index. In particular, the CPI excludes housing costs such as mortgage payments, rent and council tax, all of which are included in the RPI. The CPI also omits items such as vehicle excise duty and TV licences. The CPI takes account of the spending patterns of all households, whereas the RPI leaves out the richest 4% and pensioners who rely on state benefits for at least 75% of their income.



As can be seen from the chart above, which plots the cumulative effect of the RPI against the CPI, inflation on the RPI basis has tended to be higher than when measured using the CPI.

On average, each year the RPI has been rising about one percentage point more than the CPI. (Note that the exceptional relative dip in RPI in 2009 captured by the chart above arose from the sharp drop in the RPI when mortgage rates (taken into account by the RPI but excluded by the CPI) were slashed in response to the global financial crisis.

The main reason why RPI is (almost) always higher than CPI (even if the basket of goods and services measured was identical, which they are not) arises from the different ways in which they are calculated. Changes in the RPI are calculated using the arithmetic mean (the prices of everything to be included in it are simply added up and divided by the number of items) between the old price and the new, while changes in the CPI are calculated using (mostly) the geometric mean (calculated by multiplying the prices of all the items together and then taking the nth root of them, where "n" is the number of items involved). The geometric mean has to be less than or equal to the arithmetic mean for a given set of prices and end result is that, like for like, the RPI always gives a bigger figure for inflation than the CPI.

Incidentally, in addition to publishing the RPI and CPI, the Office for National Statistics ("ONS") recently has started to publish two additional inflation indices: "RPIJ" (which uses an arithmetic mean approach applied to the RPI basket inclusive of housing costs); and "CPIH", which expands the CPI basket to include housing costs.

Pensioner-relevant inflation

Notwithstanding the recent proliferation of inflation indices (CPIH, RPIJ), an important factor for financial planners to consider is what expenditure and inflation assumptions should be made for their clients.

We touched on pensioner lifestyle issues (such as increased need for care) in the section on health and cognition, but leaving these aside it is apparent that, generally speaking, pensioner expenditures and their exposure to inflation can be markedly different from other population cohorts, and this has led to calls for pensioner-relevant inflation data to be calculated and taken into account by policy makers.

It has been argued that, compared to the rest of the population, pensioners spend proportionately much more of their income (a substantial component of which may be fixed) on items such as food, council tax, fuel and other utility costs, and that pensioner-relevant inflation has been running much higher than the CPI.

Taking gas and electricity costs, a study by the Citizens Advice found that, in the period from October 2010 through to January 2014, these had been rising at an average rate of more than 10% per annum compound. Over the longer term taking the 10 years to 2013, electricity prices rose by 121% and gas bills went up by 191% compared to a 31% increase in the CPI.

Monetary policy impact

In recent years, pensioner incomes have also been influenced considerably by monetary policy, most notably the zero interest rate policy and quantitative easing, designed to rescue banks and ease the strain on borrowers, but which conversely has punished savers and savings institutions, leading to interest rates on deposit accounts (on which many pensioners have relied on as an additional source of income) being crushed. By way of example, in 2007 before the crisis, interest rates on cash ISAs were as much as 5% or more, compared to the 1% or so typically on offer in mid 2014.

Meanwhile, the Bank of England's £375bn gilt buying programme has deliberately kept longer term bond yields low, helping drive down annuity rates.

Pension contribution limits pared back

For those saving for retirement, far from keeping pace with inflation, the amount that can be contributed to a pension has been hacked back in recent years, such that the maximum annual contribution is now £40,000, compared to £255,000 in the 2010-11 tax year.

Also of note is that the universal pension contribution allowance (available to all, including children) regardless of whether they had any employment income has not been uprated from the £3,600 per annum originally apply when it was introduced along with stakeholder pensions. If this allowance had been uprated with RPI, it would now stand at more than £5,000.

Consumers clueless about effect of inflation on pensions

While most people have an idea that the prices of things they buy tend to go up, there is some evidence to say that most do not truly appreciate the extent to which inflation, even at historically low levels, can erode the value of their savings and pensions over time.

In August 2012, a YouGov survey of 2,000 British adults carried out on behalf of Aon Hewitt found that five out of every six people did not feel that they adequately understood the relationship between inflation and their pension.

SECTION 6

CHARGES

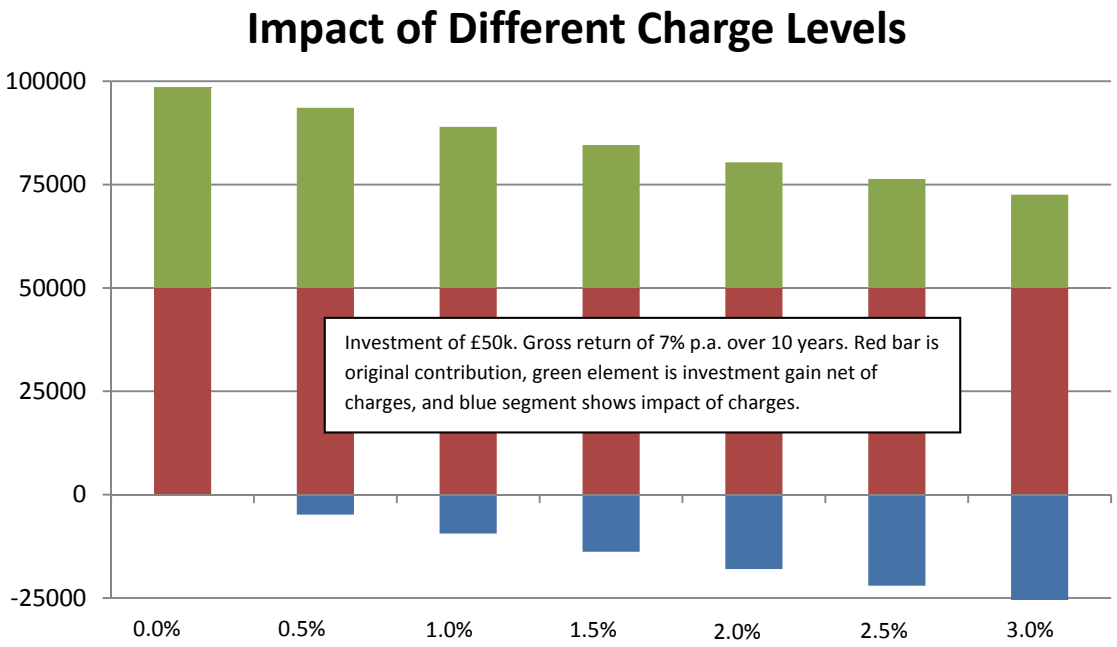
"Who took the money?
Who took the money away?"

Talking Heads

Charges

Every little helps

It is worth keeping in mind the impact charges can have on building up a retirement pot. Let us take the simple example of a £50,000 fund held for 10 years where the underlying investment growth (before any charges) is a steady 7% per annum compound. The chart below shows the position at the end of the period, illustrating the amount of capital gain and the impact of charges expressed as the reduction in the fund size compared to if no charge had been levied.



If no charges were deducted, then the pot would have almost doubled to £98,400 by year 10. At 3.0% per annum, the charge drag on performance (£25,826 reduction) is greater than the remaining capital gain (£22,531).

Decumulation drag

The following examples (all assuming a £50,000 starting pot and 7% per annum compound underlying growth) illustrate the impact of charges when a client is decumulation.

- Withdrawing a level £500 per month (£6,000 a year), for every 0.5% of charge a client will run out of money around 4 months earlier, exhausting the pot at month 124 if the charge is 2.5%, compared to month 137 if the charge is 1.0%.

- Withdrawing a level £250 per month (£3,000 a year), a client's pot after 20 years would be £47,000 if the charge was 1.0%, compared to £39,000 if the charge was 1.5%, £31,000 if the charge was 2.0%, and £25,000 if the charge was 2.5%.

- Withdrawing an initial £250 per month (£3,000 a year) rising by 5% per annum compound, a client's pot would last 26 months longer (exhausting at month 223) if the charge was 1.0% than if it was 2.5% (exhausting at month 197).

Who took the money, who took the money away?

During the past 15 years or so, there has been a concerted push from politicians and regulators for simplicity in charging, as manifested by various "stakeholder" pricing initiatives and, most recently, the Retail Distribution Review, which outlawed practices such as "over-allocation" of units. However, as far as platforms are concerned, the current reality is "the product development actuary is dead, long live the product development actuary", as the explicit and implicit charging variables surrounding individual platforms are many and varied, including the following:

- *Platform administration charge (£)*
- *Platform fee – level (%)*
- *Platform fee – tiered (%)*
- *Platform fee – banded (%)*
- *Platform fee (£)*
- *Minimum overall platform fees (£)*
- *Platform fee discount for adviser scale (%)*
- *Adviser trail commission (%)*
- *Account-linking fee basis (%)*
- *Tax wrapper set-up fee (£)*
- *Tax wrapper on-going charges (%)*
- *Platform fee/fund discount when using in-house funds (%)*
- *Cash rebates from fund group to platform (%)*
- *Superclean share classes (%)*
- *Fund switching charges*
- *Model portfolio additional charges*
- *Unit rebates*
- *Fund provider marketing support to platforms*
- *Transaction charges (£)*
- *Transaction charges (%)*
- *Transfer-in fees (£)*
- *Transfer-in fees (%)*
- *Re-registration fees (£)*
- *Re-registration fees (%)*
- *Exception fees*
- *Treatment of interest on cash*
- *VAT (application of which is not consistent across the sector)*
- *Charge for having no adviser (!)*

Notwithstanding that some of the charge types listed above are being legislated away, it is now not uncommon for some providers to have a multitude of charging points (including event-specific levies) applicable to pension savings, making it practically impossible for advisers and clients to calculate the true cost of investment at the outset. This is particularly true when it comes to drawdown.

RIYs

A further issue for advisers and consumers to consider – and for the regulator to resolve – is the wholly unsatisfactory reduction-in-yield ("RIY") methodology that has come to be widely relied upon as a valid measure of relative charges, and taken further (often unwisely and inappropriately) to be used a measure of comparing the relative value of one proposition against another.

One problem is that the stated RIY can vary (for the same proposition) depending on the growth assumptions used.

A much bigger problem is that, while RIYs might have some merit (subject to the growth assumptions issue flagged above) when calculating like with like (e.g. one UK equity index tracker unit trust against another), they are useless and, indeed, positively misleading when used (or are deemed not applicable as the case may be) in the context of product/funds with guarantees, such as with profits and variable annuities.

There is no logic in a methodology that, assuming the same underlying fund exposure, causes an adviser or customer to automatically jump to the conclusion that a variable annuity with capital and/or income guarantees and/or high watermark lock-ins with, say, an RIY of 2.0% (inclusive of explicit charges for the guarantees and/or lock-ins) is poorer value than the same fund exposure, with say an RIY of 1.2%, without the guarantees/lock-ins, as this (manifestly incorrectly) pre-supposes that the additional variable annuity benefits have no market value.

What is more, RIYs are nowhere to be seen when it comes to "plain vanilla" guaranteed compulsory pension annuities (which are hardly lacking in moving parts and underlying charges and costs, as we will explore in the "Inside Annuities" section, below), but are required to be calculated and published for investment-linked annuities such as have been marketed by MGM in recent times.

Advisers and their clients should be encouraged to focus on the total cost of ownership at the same time as understanding the total benefits/disbenefits of ownership.

SECTION 7

FINANCIAL FUNDAMENTALS

"If, when, why, what?
How much have you got?
Have you got it, do you get it, if so, how often?
And which do you choose, a hard or soft option?
(How much do you need?)"

Pet Shop Boys

Time v Money

Right tools for the job

As advisers become more in demand to provide advice on complex accumulation and decumulation strategies, it is vital that they arm themselves with the appropriate financial tools for the job.

In particular, it is essential that advisers start using client-focused money-weighted techniques as opposed to fund-focused time-weighted performance measurement, especially where there are on-going cashflows in or out of a client's portfolio (or, potentially, cashflows in both directions).

As we will see later on (especially when we look at the returns from annuities), not only are money-weighted techniques great for understanding the true investor experience where more than one contribution is made or when decumulation is involved, they also enable advisers and their clients to make valid like-for-like judgments across any investment formats such as, for example, to compare taking regular withdrawals from an offshore bond with buying a pension annuity.

Time-weighted measurement

To keep things simple, let us assume that the customer is invested in a single fund. The time-weighted approach simply looks at the fund performance over time, and ignores how much was invested/disinvested and when.

In contrast, the money-weighted approach take account of what was invested or disinvested, and when, and at what price.

Time weighted performance is very easy to measure, but potentially highly misleading.

Money-weighted returns ("IRR")

In contrast, money-weighted measurement (which involves finding the internal rate of return on cashflows) takes more time and effort, but ensures that the customer has a true picture of actual or prospective investment.

We now provide a few examples that compare time-weighted and money-weighted measurement. The differences in what they can say about an investment can be quite startling.

Example 1 – Simple to see

This is very simple and relates to investment in a fund that grows by exactly 10% compound each year.

On day 1, the investor invests £1,000 at a price of 100.0p. Exactly a year later, he puts in another £1,000, this time at price of 110.0p (up 10%). A further year passes and the price has risen to 121.0p (up another 10%) and he invests £1,000 more. One year exactly after that, the fund has risen by another 10% (unit price now standing at 133.1p) and he cashes out.

You do not need even a pencil and paper to see that the time-weighted (fund-related) performance has been 10% per annum compound and, given the consistent nature of the investment growth, it is obvious that the money-weighted return (IRR) is also 10%, but we will check this out in any event.

Using Excel's IRR capability, where contributions attract a minus sign, in successive cells we input -£1,000 (contribution at the beginning of year 1), -£1,000 (contribution at the beginning of year 2), -£1,000 (contribution at the beginning of year 3), and £3,461 (fund value at the beginning of year 4), and we find that the IRR is shown as 10.0%.

Example 2 – Worse than it looks

In this example, the unit price goes up and then comes back down again to where it started.

This time the client invests £10,000 into a fund where the unit price is £1.00. Exactly one year later, the fund has displayed remarkable performance such that its unit price has doubled to £2.00 and the client, enthused by this, invests another £10,000 at that price at that time. Another year later, however, the unit price has fallen back to £1.00 again.

Over the two years, taking the £1.00 fund value at day 1, and the £1.00 fund value at the end of year 2, the time-weighted fund value performance is 0.0% (0.0% per annum compound).

When we properly take account of the amounts invested, when they were invested and at what price, we find that the money-weighted return on his cash (IRR), where the fund value stood at £15,000 after two years, was actually -17.7%.

Example 3 – Positive is actually negative

In our third example, the unit price rises but falls back to some extent, but is still higher at the end of the period than at the beginning.

The client invests £1,000 on day one at a unit price of 100p. One year later, the price has risen to 150p and he invests a further £1,500 at that price. Another year passes and the price has fallen back to 130p, and he puts in £2,000 more at that price. Twelve months more go by and the unit price has slipped some more to stand at 113p.

The time-weighted (fund-centred) performance was +13.0%, equivalent to +4.2% per annum compound over the three years.

In contrast, the money-weighted return (IRR) that takes account of what was invested, when and at what price (the fund value was £3,998 at the end of three years) was actually -6.5% per annum.

Example 4 – Negative is actually positive

In this example, the unit price is at its highest on day one, drifts lower and recovers a little, but never regains the initial high.

The client invests £1,000 on day one at a unit price of 100p. One year later, the price has fallen to 65p and he invests a further £1,500 at that price. Another year passes and the price is now 75p, and he puts in £2,000 more at that price. Twelve months more go by and the unit price has improved some more to stand at 91p.

The time-weighted (fund-centred) performance was -9.0%, equivalent to -3.1% per annum compound over the three years.

In contrast, the money-weighted return (IRR) that takes account of what was invested, when and at what price (the fund value was £5,437 at the end of year 3) was actually +11.0% p.a.

Example 5 – Complex cashflows

Our fifth example is more complex and allows for money being invested and subsequently being partially withdrawn (such as typically would happen in pension drawdown or with an investment bond).

The client invests £10,000 on day one at a unit price of 100p. One year later, the price has fallen to 95p and he invests a further £6,000 at that price. Another year passes and the price is now 90p, and he puts in £5,000 more at that price.

Twelve months more go by and the unit price has increased substantially to stand at 115p, at which point he withdraws £8,000. After one more year the unit price has moved ahead to 120p, and he takes out another £5,000. Another year elapses, there are no more contributions or withdrawals and, at the fifth anniversary of the plan, the unit price is now 128p.

The time-weighted (fund-centred) performance was +28.0%, equivalent to +5.1% per annum compound over the five years.

However, using the money-weighted IRR approach that takes account of what was invested and withdrawn, when and at what price (the fund value was £13,758 at the end of 5 years) was actually +7.3% per annum.

IRR & irregular time interval cashflows

The IRR approach (accessible within Microsoft Excel) is a great tool to use when contributions and any withdrawals are made and evaluated at even time intervals (e.g. exact months, years).

However, there will be cases where contributions and any withdrawals are made at "irregular" dates. For example, an initial contribution made on 22 November 2014, a further contribution made on 7 July 2015, a withdrawal on 30 May 2017, and another withdrawal on 6 September 2018. Where the contributions and any withdrawals are not made at regular intervals, advisers should not use IRR but, instead, use a related Excel tool, "XIRR", which can accommodate any time pattern of cashflows.

Net present value ("NPV")

The net present value ("NPV") approach to investment appraisal sits within the same family as IRRs.

Whereas IRRs tell you what the percentage internal rate of return is for a given set of cashflows and can be used (as we will demonstrate below on the section on annuities) to work out at what point cashflows reach break-even point, NPV shows you the cash value of future projected cashflows.

These cashflows can be left undiscounted or, as you prefer, assessed after making allowance for a "hurdle rate" that you can specify. For example, the future cashflows from an annuity discounted at a hurdle rate of 3% to allow for the probability that the investor could have made that 3% return by investing his money elsewhere.

Final Salary Transitions & GAOs: Pricing In Financial Flexibility

Bird in the hand

Given the egregious wave of pension mis-selling that took place in the 1980s and 1990s and the recent proliferation of pension liberation scams, it is absolutely right and fitting that the regulator takes a tough approach in ensuring that final salary pension transfers are undertaken within a robust analytical framework designed to ensure that defined benefit scheme members receive good quality advice and are not mislead as to the extent of any benefit or disbenefit that may arise from transferring out.

However, there is some good evidence to say that consumers who adamantly profess to understand that such transfers (whether to a DC arrangement or, prospectively, out of a pension environment altogether) may not be advantageous when considered purely by reference to a critical yield nonetheless want to go ahead with such a switch on the grounds that it provides them with greater financial flexibility.

Put another way, it is clear that some scheme members place a value on the liquidity/optionality that a transfer to DC or an outright cash-out might provide.

In the wider commercial world, such flexibility, optionality or liquidity is routinely assigned a price.

- In financial markets, think of the premium paid for traded options (that give the right but not the obligation to buy/sell a security at a future date).

- Think also of the recent debate with regard to the decomposition (within the FSA and elsewhere) of credit spreads as to what proportion of the spread on corporate bonds is attributable to credit risk and what proportion to other factors including liquidity.

- Mortgages and fixed income securities that allow the borrower to pay down debt early may be priced differently from those that do not incorporate such facilities.

- We commonly also see premia applied for optionality and flexibility in the travel industry. A British Airways flight from London to Edinburgh is over £500 on a fully flexible basis that allows the passenger to chop and change the dates and times of travel, whereas the fare for a ticket where travel is restricted to the dates and time originally stipulated (i.e. where the passenger is forgoing optionality and flexibility) can be as low as £100. In other words, the premium for optionality is in excess of £400 for that journey.

Enhanced approach

The existing transfer value analysis approach is silent on the liquidity/optionality/flexibility factor, and the focus on critical yield is akin to a personal assistant always arranging a boss's travel schedule on the grounds that inflexible lower-cost flights are to be preferred to higher cost arrangements that provide him or her with room to rearrange and reschedule according to day to day reality.

The critical yield approach effectively places no value on flexibility, optionality or liquidity, and the current approach to regulation of advice in respect of whether a pension transfer is compliant seems to incorporate an "Oh Sir Jasper!" iteration where the client has to insist and insist and insist that he or

she wants to proceed with a transfer that is "unfavourable" when considered against the prevailing critical yield. In such cases it really should not be beyond the wit of man to devise a methodology where the cost of optionality/liquidity is spelled out to the client and signed off by them as being acceptable.

Given that the 2014 Budget reforms anticipate that advice will be mandated for final salary cash-outs, we urge the regulator to expand the mandatory analysis to include assessment of the liquidity cost, and for this to be spelled out clearly and prominently.

This would be done as a supplementary exercise in synch with existing FCA-mandated requirements:

> *"Dear Mr Client, with regard to switching to DC/cashing-out from DB, we have assessed this scenario using assumptions set/approved by the regulator, and can advise you that it has a cost in today's money of £xx,xxx, which is what you would be losing out over time in exchange for the flexibility afforded by transferring from your existing final salary pension/gaining access to funds now."*

This additional step could be undertaken deterministically. However, it would be preferable if stochastic analysis be undertaken in parallel that incorporates a range of assumptions, combining the probability of certain outcomes (high, median and low) occurring with illustrative values for the liquidity premium in each case.

Increased access to advice

This expanded and enhanced approach would avoid the situation (which we otherwise think is likely to occur frequently), where advisers hold back from engaging with customers with regard to DB scheme switches and transfers for fear of FCA action.

We should not have a regulatory regime where it is "bad" advice or a "bad" consumer outcome for a well-informed client to knowingly decide to effectively pay a clearly-stated and robustly calculated liquidity/optionality premium following consultation with a financial adviser.

The proposed changes would reduce the fear factor among advisers and should lead to more consumers having access to well-formulated advice and making better-informed, financially sound decisions.

Guaranteed annuity options

Many old-style pension contracts incorporate guaranteed annuity options, which in most cases would enable a pension saver to buy an annuity on better terms than available in the market today.

Notwithstanding that the guaranteed rate might be better than a not-so-hot current market rate, some pension investors will want to consider whether accessing their pension fund in a more flexible manner suits them better, especially as some guaranteed annuity options are relatively inflexible with regard to how they might be exercised (for example, some may be activated on the 65th birthday only). In addition, there is the inheritance factor when comparing death benefits under a GAO with drawdown and pension cash-out alternatives.

This again brings into issue the question of helping the consumer make an informed decision by illustrating the financial cost (the liquidity premium) of not taking up the guarantee.

As per our recommendation for final salary transfer analysis, we think that consumers should be given easy-to-understand information to help them weigh up whether a guaranteed annuity is for them, and what they might be giving up (in net present value terms) if they do not exercise the option.

SECTION 8

A LOOK AT ANNUITIES

"St Peter don't you call me 'cause I can't go
I owe my soul to the company store"

Tennessee Ernie Ford

Inside Annuities

Could you do better?

On 19 March 2014, the Chancellor of the Exchequer proclaimed, “Let me be clear no one will have to buy an annuity”.

Whether, in spite of the new freedom, individuals should buy an annuity is another matter.

To help advisers determine whether they might be able to do better for their clients, this section provides a quick look “under the bonnet” of annuities to help intermediaries contrast and compare alternative strategies for their clients.

Two big decisions

Under a pension annuity, the insurer is guaranteeing to pay a certain amount (level, RPI-linked or with some other pre-set rate of uplift) to the annuitant throughout his remaining life. To do this, the insurer has two big decisions to make: what life expectancy to assume, and what investments to hold to back the annuity payments over the assumed life of the annuitant.

Life expectancy

Longevity

In trying to work out how long annuitants will live, life offices are mindful of external data, such as sourced from GAD/ONS, the Institute and Faculty of Actuaries’ Continuous Mortality Investigation Bureau, other external sources, such as Hymans Robertson’s Club Vita, and from reinsurers.

In addition, life offices will take into account their “own experience” data emerging from their in-force business currently and the trends emerging from their back books historically. This is especially the case with regard to individually underwritten impaired life business and, to some extent for enhanced terms smoker and “lifestyle” business.

In assessing longevity risks when pricing annuities and reserving for them, insurers do not simply apply a static life expectancy assumption. Instead, and being mindful of the gradual increase in life expectancy seen over many decades, they factor in improvement assumptions that allow for further increases in life expectancy among their annuitants-in-payment

Longevity risk mitigation

The use of reinsurance varies considerably among annuity writers. Some rely on it quite heavily, while others only use it for part of their exposures (such as enhanced terms business) or not at all.

Most longevity risk sharing is in the form of asset-backed transactions. These expose the life office to credit risk and, typically, a reserve will be held to cover adverse outcomes in the event of the default of the reinsurer. Some life offices put in place protective strategies, such as deposit-back arrangements or require the reinsurer to post collateral.

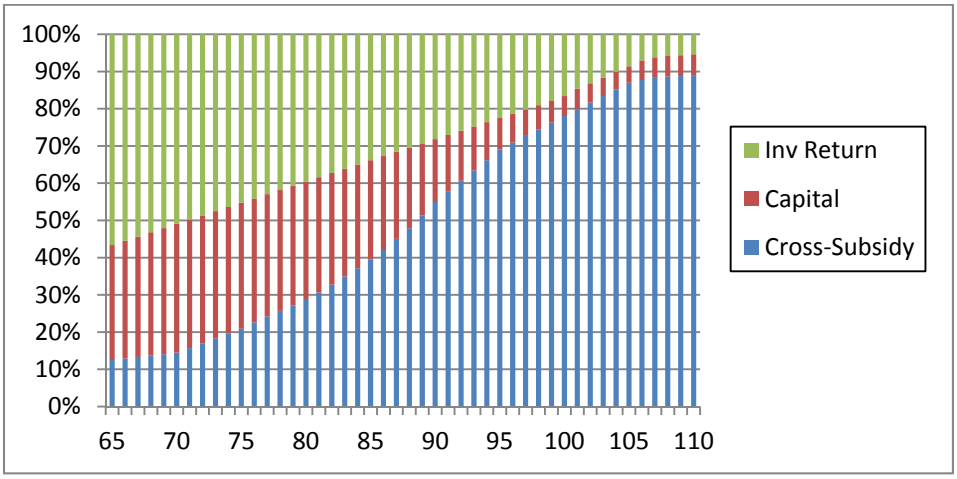
The use of longevity swaps has increased in popularity in recent years. Under these arrangements, the assets stay in place with the annuity writer which, instead, enters into what might be described as a

"contract for differences" with the reinsurer (or sometimes the counterparty is an investment bank) such that, if longevity is higher than the level specified in the agreement between the insurer and the reinsurer, the reinsurer pays funds to the insurer and vice versa. In that way, the insurer caps off its exposure to longevity improvements and reduces the right hand tail risks stemming from its annuity portfolio.

Up until now, longevity swaps have only been available instructionally, between bulk annuity writers and final salary pension schemes, as well as between life offices and reinsurers. Following the 2014 Budget reforms, we could well see providers coming to market offering such stand-alone longevity protection to individuals, possibly as an asset class within portfolios held on platforms.

Impact of pooling

Traditionally in constructing an annuity book of business, a life office pooled the risks so that underwriting gains from those who died early (before their normal life expectancy) to some extent were redistributed to help meet payments made to those who lived longer than their life expectancy.



The impact of such traditional "annuity cross-subsidy" is illustrated by the chart above which, for a cohort of male annuity purchasers aged 65 all being paid the same annuity rate, shows how much of the annuity each year for those who survive to receive it is made up of investment return, return of capital, and annuity cross-subsidy.

However, during the past couple of decades, longevity management has gradually moved away from a one-size-fits-all model, where there were common pools (male and female) of annuitants.

In an effort to price more accurately, life offices now look to refine their annuity pricing to take account of factors such as: smoking, lifestyle (e.g. body mass, cholesterol etc) and health, socio-economic and job status, and post code.

Annuity pot size is also often taken into account. However, while a large pot size generally could be said to be indicative of wealth (and, thereby, socio-economic status) and high life expectancy, a small pot size does not necessarily indicate the opposite. A better off annuitant might well have their pension savings spread among several (smaller) pension pots and, when analysing an in-force book of annuities, there are also potential distortions arising from the likelihood that those pensions that retired long ago will tend to have smaller pension pots than recent annuity purchasers, in addition to which survivor pensions typically are 50% or so of the pension originally paid to the purchasing annuitant.

Taking these and other social-economic indicators, many thousands of permutations can apply account when setting an individual's annuity rate nowadays.

This shift to what most providers now refer to as "individual underwriting" is in stark contrast to the traditional socialised pooled risk approach, and means that the actual impact of annuity cross subsidy (as illustrated on the previous page) on newly-minted annuitants and the impact of mortality drag on the relative value to be had from drawdown will have been decreasing in recent years as life offices increasingly move away from a pooled approach and toward pricing based on each applicant's personal characteristics.

The 2014 Budget decumulation reforms will dramatically reduce the quantum of new individual annuity business, and probably lead to a pronounced personal demographic skew among those retirees that continue to buy annuities, and this is likely to reduce the scope for annuity cross-subsidy still further, with likely downward pressure on "mainstream" rates for younger lives rates relative to where they otherwise might have been. We will come back to the question of longevity protection in the "new world" in the commentary on pages 74 to 77.

Investment

The days when life offices mostly backed their individual level annuities by gilts are long gone. Despite this, there appears to be a popular misconception among some advisers that, currently, individual pension annuities are predominantly underpinned by investment in gilts. For example, in September 2014, one annuity adviser's internet site stated that: "In order for the insurance company to be in a position to pay the annuitant, it must purchase Sterling fixed interest securities such as UK Government securities or gilts. The amount of income that can be purchased with a pension fund depends on the yields for long term gilts and in particular gilts with a redemption periods of 15 years or more". Statements such as these are incorrect.

These days, generally only a small proportion of funds backing level individual annuities are held in gilts, and these exposures are typically driven by regulatory capital considerations leading some providers to hold gilts to support cashflows at the longer end of their annuity portfolios. Under such strategies, the amount held in gilts will tend to increase when corporate bond spreads are lower and decrease when spreads are higher.

Asset classes

Taking annuity writers in aggregate, the predominant exposure is to sterling corporate bonds, but there is a very wide range of other asset classes now being used to support retirement income contracts. The list of assets that may be held includes the following:

- *Gilts*
- *Overseas government bonds*
- *UK & international supra-national debt (e.g. ERBD and EIB)*
- *Corporate bonds*
- *Sundry collateralised loan obligations*
- *Commercial property (direct)*
- *Commercial real estate mortgage-backed securities*
- *Hotel financing arrangements*
- *Commercial mortgages (direct)*
- *Residential mortgage-backed securities*
- *Equity release mortgages (direct)*
- *Residential housing (direct)*
- *Student accommodation (direct)*
- *Total return swaps/bank liquidity transformations*
- *Infrastructure projects (nuclear power stations etc)*
- *Direct corporate lending*

When it comes to the risk attaching to non-UK gilt exposures, life offices make reserves to allow for default and illiquidity by making deductions from the yields on their non-gilt assets.

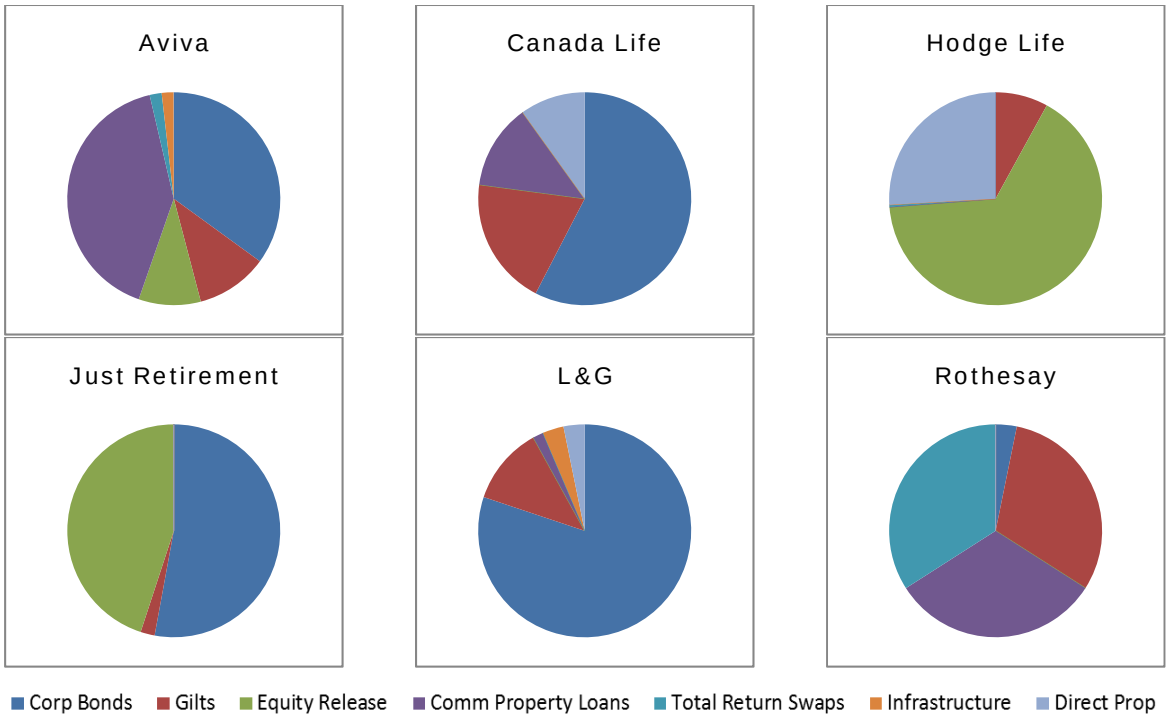
Derivatives

To smooth cashflow and help reduce risk such as might arise from interest rate and currency mismatches and corporate defaults, it is common for annuity writers to hold derivatives, such as the following:

- *Interest rate swaps*
- *Swaptions (to manage interest rate exposures)*
- *Currency swaps*
- *Credit default swaps*
- *Spreadlocks (to reduce the impact of changes in corporate bond spreads)*

Providers' diversity of investment approach

The charts below illustrate the diversity of recently observed asset mixes backing annuities for a range of providers. Weightings are approximate, and splits have been simplified, with "gilts" including non-UK sovereign and supra-national debt and money market investments.



Interplay with regulatory capital requirements

The PRA has in place a regulatory capital matrix that relates to investments held. Put simply, the shorter the term and higher the rating of the bond or other asset, the lower the capital requirement per £ of investment. Accordingly, a £1m investment in a AA-rated corporate bond with 3 years to maturity will require less capital to be put aside than a £1m investment in a BBB-rated bond with 12 years to maturity.

The length ("tenor") of the bonds held by annuity writers is, of course, strongly influenced by the expected longevity of the underlying annuitants, although this might be less of an issue for a provider which is experiencing strong annuity new business flows such that premiums outstrip claims. Having

established the shape of the cashflow requirement, the annuity writer will balance the extra return from holding corporate bonds (or other non-gilts) of a particular tenor with the regulatory capital requirement. As noted above, in times when corporate bond spreads are high, it is likely to be relatively more attractive (comparing the spread attainable with the capital requirement) to invest new money to back recently written annuities in longer dated, lower rated bonds, than would be the case during periods when spreads are low.

Recently, sterling corporate bond spreads have been at or close to historically very low levels. Given the PRA capital requirements, this has made such investments less attractive than they had been, especially over longer durations. As a result, some annuity providers had adjusted their portfolios such that holdings of corporate bonds were mostly used to meet shorter term cashflows (the capital requirement is less for shorter corporate dated bonds than longer dated ones), while gilts were being used to meet longer dated cashflows (the lack of "spread" on gilts being offset by the lower capital requirement), with the end result that the annuity book's investment portfolio might be split, say, between corporate bonds where the average duration is 9 years, and gilts where the average duration is 20 years. If spreads were to widen out again, we might expect such life offices to increase their holdings of longer dated corporate bonds and reduce their holdings of gilts on the grounds that the increase in spread was worthwhile after taking account of the increase in capital requirement from holding more corporate and longer dated bonds.

Regulatory capital

As well as building in "wiggle room" (otherwise known as "prudence") with regard to their asset return assumptions, counterparty risks and longevity assumptions, annuity writers are required by the PRA to hold regulatory capital.

For an identical book of annuities-in-payment backed by an identical pool of assets, the amount of capital required to be held can vary substantially from one provider to another. This is because, under the UK's current solvency capital regime and under the prospective Solvency II requirements (set to go live in 2016), the whole of a group's activity is taken into consideration, and credit is given for diversification of non or weakly correlated activities.

As a very rough guide, the amount of capital held by an insurer to back its annuity business could be the equivalent to 10% to 15% of its annuity liabilities, depending on its business model, group structure and whether open or closed to new business.

Provider risk/reward

Annuities are the actuarial equivalent of Marmite. Some providers do not like the risks attached and/or the prospective rewards, in some cases going as far as to get rid of their in-force annuities to another provider (think Royal London's disposal to Prudential), while others (such as Aviva, Legal & General and Just Retirement) have big appetites for retirement income risks.

Writing annuities could be considered to be leveraged spread business. To provide a rough example, the "source" of funds backing £100m of annuity reserves (perhaps £85m for policy benefits plus another £15m of prudential/regulatory reserves) might be derived from something like £90m of policyholder premiums plus £10m of shareholder capital. If things (such as actual longevity experience and investment returns) go against the life office, a 1% rise in the total reserve requirement (i.e. £1m) would equate to 10% of the shareholder capital committed.

Life companies use a plethora of methods to measure the economic impact of their activities. These include embedded value accounting and, economic capital assessments, and in some cases, the use of IRR and payback metrics (which we will focus on from the perspective of the annuity buyer and his or her adviser in pages 68 to 73).

Given the leverage inherent in annuity business and the risks to shareholder funds, annuity writers should require a relatively high return on capital to compensate for the risk they are accepting.

Using IRR methodology, we are aware of major providers that, in recent years have been reporting IRRs on individual annuity new business of up to 20% or more. Assuming that this sort of return is typical across the sector, it would appear that IRRs for providers are pretty tasty but, as we shall see in the next section ("Consumer Value from Annuities"), not nearly so good for annuity buyers, for most of whom IRRs anywhere near 15% are a pipedream. This brings to mind the old question, "where are the customers' yachts?".

What's the cost?

No two annuity providers have exactly the same business model, and there are variations in the market segments targeted (e.g. smokers, impaired lives, back book vestings, bigger ticket OMO transactions etc), as well as in the approach to investment and asset liability management and in risk mitigation (appetite for credit risk, bond portfolio default assumptions, use of longevity reinsurance, collateralisation and so forth).

The number of mouths that need to be fed from the annuity fund can be numerous, and it would not be unrealistic to assume that the present value of the initial and future costs and margins associated with a contract might such as to equate to 20% or more of the purchase price.

Based on an 18 year payment period (i.e. assuming that a male 65 year old annuity buyer dies after 18 years in line with life expectancy at the time of purchase), this 20%+ bite would be roughly the same as if the contract had an explicit annual management charge in the region of 2% to 3% per annum or more of the amount invested. This is borne out by our customer outcome IRR testing illustrated in the next section.

Consumer Value from Annuities

Income erosion

We saw on pages 48 to 50 how much damage can be done to the living standards of retirees reliant on a fixed source of income - over 20 years, annual inflation of 3.5% (which is close to what we have experienced during the past two decades) would chop their spending power in half.

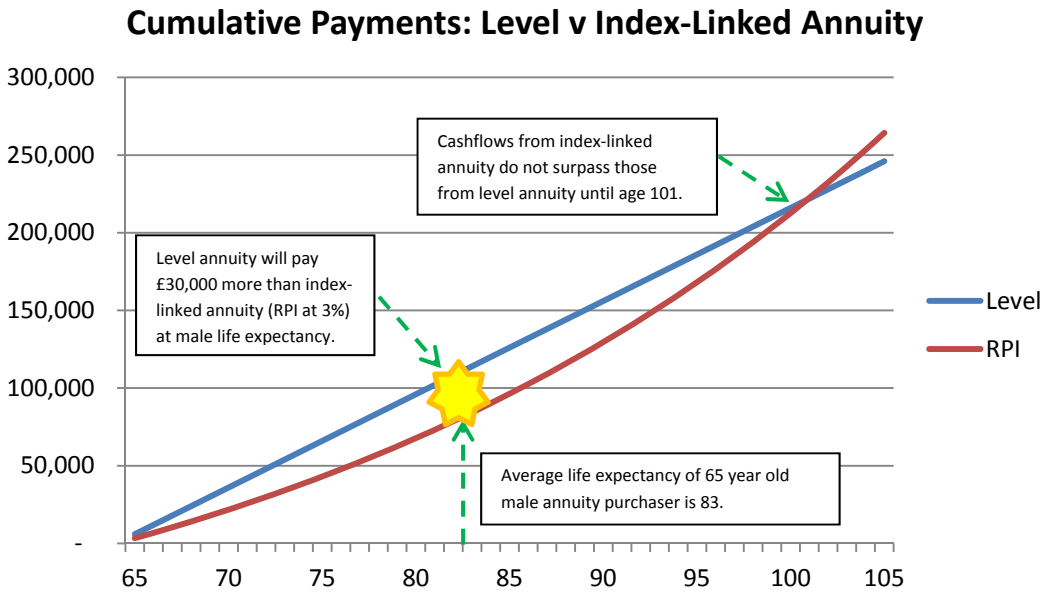
Pension annuities where the income is uplifted each year in line with the RPI are available but, despite this, more than 90% of all individual annuities taken out each year are on a level basis as consumers shun the option to protect the purchasing power of their income from erosion by rising prices.

As things stand, in most cases consumers (and their advisers) are right in avoiding index-linked annuities. They are simply relatively (and currently absolutely) poor value for money.

A man aged 65 has, on average, a remaining life expectancy of 18 years. Based on rates as at September 2014, a £100,000 purchase price could secure him a competitive fixed annuity income of £6,000 (single life, no guarantee). If, however, he chose an annuity with payments guaranteed to rise each year in line with RPI, his starting annuity would be only £3,360 – some 44% less to begin with.

In order to make a fair assessment of the relative value of fixed and index-linked annuities, we need to consider how the cashflows might stack up over time. Let us assume RPI inflation of 3% per annum compound – this is not unreasonable given that the inflation target mandated to the Bank of England by the Chancellor of the Exchequer is CPI of 2%, and we have seen (as explained on page 49) that, on average, RPI tends to run about 1% higher than CPI.

At 3% RPI, the amount of index-linked annuity (which starts at £3,360 in year one) paid out in any one year does not get to surpass the fixed amount paid by the level annuity (£6,000) until year 21.



But this does not tell the true story, as we need to consider the cumulative income paid by the relative annuities. As can be seen from the chart above, based on 3% inflation, the cumulative income from the index-linked annuity does not exceed what is delivered from the fixed annuity until year 36.

In other words, the index-linked annuity only delivers overall better value for money if our would-be annuitant lives to be at least 101! But, as we know, he has an average life expectancy of 83 and, if he lived exactly that long, his £100,000 annuity purchase price would have generated £30,000 more income on a level basis than if he took out an index-linked one and RPI averaged 3% per annum.

Different RPI inflation assumptions

Based on the competitive annuity rates used for the illustration above, the table below shows the age (for a 65 year old annuity buyer) at which undiscounted cumulative cashflows from the index-linked annuity would surpass those from the level annuity based on different future RPI assumptions.

Index-linked annuity cumulative cashflow cross-over age (Sep 2014)	
Assumed RPI (p.a.)	*Crossover age*
3.0%	101
3.5%	96
4.0%	94
4.5%	90
5.0%	87

Even assuming 5% RPI, the index-linked annuity does not move into the lead until the annuitant reaches age 87 (which is later than current life expectancy, which on average is 83 years for males and 86 years for females).

If the 65 year old annuity buyer dies at age 83 (life expectancy for a male purchaser), RPI would need to average just over 6% per annum for the index-linked contract to match the level annuity when it comes to cumulative cashflows to the time of death.

Index-linked v level at different ages

The value gap between fixed and index-linked annuities is worse for younger lives. Compared to the current 44% reduction for a 65 year old, the starting income from an index-linked annuity would be about 47% lower for a 60 year old, and 50% lower for a 55 year old. Conversely, the gap reduces at older ages, and the reduction in starting income is around 35% at age 70, and 26% at age 75.

Smoker rates

We re-ran the calculations using representative competitive smoker rates, which as at September 2014 were running at about 10% to 15% higher than non-smoker terms. If we assume that a 65 year old male smoker has a life expectancy four years less than a non-smoker (age 79), then resulting cumulative cashflows from a smoker contract with a 15% uplift (£6,900 per annum) payback the £50,000 purchase price after 14 years, exactly in line with life expectancy.

Impaired lives

We believe that special considerations apply to relatively highly-rated “impaired lives”, including individuals with serious illnesses such as cancer, Parkinson’s disease and the like. These contracts are perhaps more “insurance” than “investment”, and we offer some thoughts on retirement income provision and the development of the annuity market for non-healthy clients on page 75.

Tricky talk

By the way, did you spot the tricks that we pulled above when talking about cashflows and putting the chart together? We focused on the income, and kept quiet about the fact that £100,000 was sunk into the annuity in the first place!

We also assumed that there was no "opportunity cost" attaching to the annuity purchase price (and, to be fair, that could have been said to be correct prior to the decumulation reforms given the requirement to buy an annuity at some stage).

Annuities are a "money-in and money-out" investment proposition just like anything else, such as investing in a UK equity tracker unit trust, or in a chain of fish and chip shops, or your brother-in-law's widget manufacturing business.

We discussed money-weighted returns on pages 56 to 58, and later on this section we explain why that is the best technique for assessing the value from annuities (and from anything else for that matter) and take a closer look at whether annuities deliver value-for-money.

Index-linked: why so bad?

Greater risk & uncertainty for insurers

One reason why index-linked annuities provide relatively poor value compared to level ones is that they are riskier for insurers to manage.

In providing a level annuity, the life company knows how much it will be paying out each year (although not for how long), and can hold investments (corporate bonds, gilts, mortgages etc) and derivatives (such as interest rate swaps and credit default swaps) to achieve a reasonably good match between its cashflows and its obligations to the annuitant.

In contrast, in providing an index-linked annuity, the insurer does not know how much it will be paying out in the future, and this makes the risks around constructing a portfolio to generate these unknown cashflows and the chances of getting it adversely wrong much greater.

In the example illustrated above, assuming 3% RPI, the index-linked annuity paid would have risen from £3,360 in year 1 to £5,554 in year 18 (the life expectancy of our annuitant), and the cumulative amount paid would have been £79,000. If, instead, RPI turned out to be 5% per annum, the annuity payable in year 18 would be £7,701 (39% higher in that year than if RPI averaged 3%), and the cumulative annuity payments to that point would have almost reached £95,000. Given potential variances of this magnitude, and the implications for the development of required regulatory capital, insurers build in bigger buffers to try and avoid being caught out by adverse inflation outcomes, and these serve to reduce the value delivered to individual index-linked annuitants.

Index-linked gilt shortage

Apart from longevity risk, index-linked annuity writers also have to contend with the problem that the "natural" asset class to back these contracts, index-linked government bonds, is in short supply. As at mid 2014, the total nominal amount of index-linked gilts in issue (including DMO holdings) was £335bn including inflation uplift, while the aggregate market value was just over £400bn, compared to a c£1,500bn total market value for non-linked gilts and sterling corporate bonds.

Not only are proportionately few UK gilt issues in index-linked format, they are in high demand from defined benefit pension schemes with salary indexation commitments (total final salary liabilities are in the region of £1,300bn in the private sector), causing supply to outstrip demand, hence the market value of index-linked gilts standing some way above their nominal inflation-uplifted value.

A recent example of this supply shortage is the 2058 index-linked gilt issued in July 2014, where the size of the issue was increased from £4bn to £5bn in the face of bids totalling £14bn. The net result of this huge imbalance of demand over supply was that the 2058 "linker" was sold on a negative real yield, meaning that investors are guaranteed to lose money (relative to RPI) if they hold the stock to maturity.

If the "raw material" is being sold/owned on negative real returns, then imagine how much worse the outcome is once bonds sold on such terms pass their way through the life company annuity manufacturing sausage machine, with value further eroded as the cost of capital has to be provided for, along with reserves for longevity risks, costs of fund management, distribution, administration and so forth, together with the building in of a hoped-for profit margin for the product provider.

Do the math…properly!

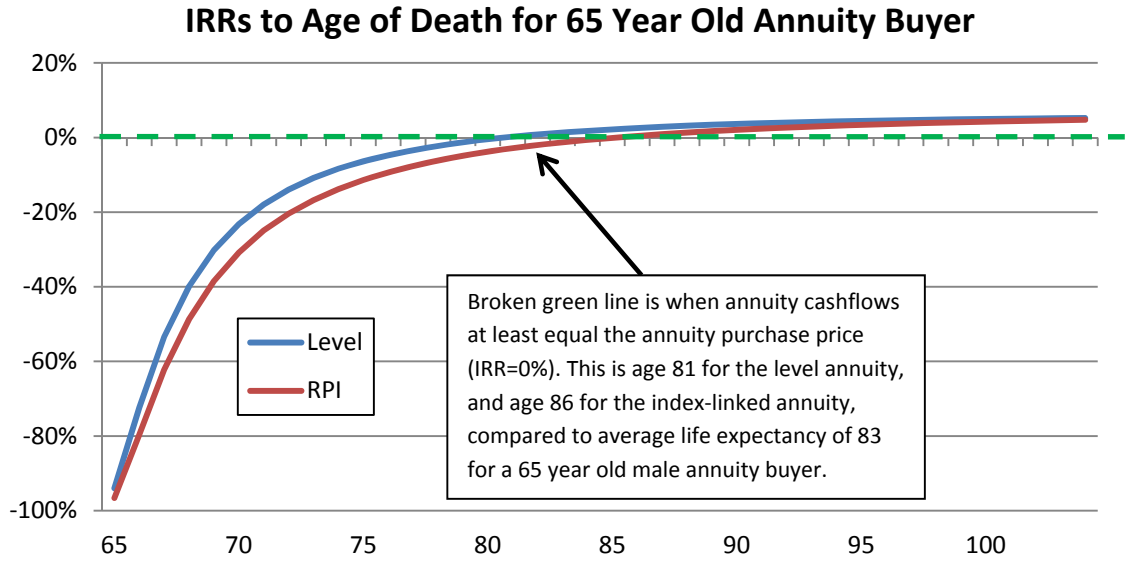
Earlier in this section, we illustrated the comparative cashflows from a level and an index-linked annuity and put our hands up to the widely used "trick" of talking about annuity rates and cashflows without taking into account the annuity purchase price.

When someone says that "the annuity rate is 6.0%" the reality may turn out to be that something like 5.9% of it is simply the handing back to the customer his own money without interest!

To get to grips with the underlying reality, advisers need to calculate money-weighted returns (IRR) and understand net present values. These fundamental disciplines are taught at every business school, are basic skills required of those sitting IMC and CFA exams, and are in universal use by corporate and individual investors from Boston to Birmingham to Bombay to Bangkok to Brisbane.

Annuity IRRs

We think that the best way to assess the true pay-off from buying an annuity is to calculate the IRR (internal rate of return) of the cashflows for given life expectancies.



The IRR is the discount rate that makes the net present value of all cashflows from a particular investment equal to zero. The higher the IRR, the more attractive the investment proposition appears. Based on the same data that we used above (65 year male with £100,000 purchase price, alternatively buying a level and an index-linked annuity each without guarantee), the chart above plots the progression in IRRs based on death at one year intervals.

By any yardstick, the emerging IRRs for currently available annuities are very poor for standard terms males. (They are slightly better for 65 year old females, who have an average life expectancy of 86.)

For a level contract where the 65 annuity buyer dies after 5 years, the IRR is a woeful -30%.

If the annuitant survives for 10 years (to age 75) the IRR is still negative at -8%, and if his death matches his life expectancy (after 18 years at age 83), the IRR is a measly 1%. Even if he lives to be 100, the IRR does not quite reach 5%.

For the index-linked annuity, the IRR in the event of death after 5 years is -39%, improving to -14% in the event of death after 10 years. If the annuitant dies at 83 (in line with life expectancy) it is still negative at -1%. The index-linked annuitant would have to live three years beyond his life expectancy before he starts to do better (but only very slightly better) than get his annuity purchase price back.

NPVs

When we referred, immediately above, to how long it would take for a level and an index-linked annuitant to simply get back from the annuity what they paid in, we were understating the case, as we took no account of the fact that, if the saver had not sunk his money into an annuity, he could have invested it somewhere else to get a return (this is known as the "opportunity cost"). So, the true investment outcome is worse than it looks when measured using IRRs.

To make allowance for the fact that the annuity purchaser could have made an investment return elsewhere, we use another measure, net present value ("NPV"), which is related to the IRR method.

The NPV allows investors and their advisers to take account of any otherwise foregone opportunity cost when considering the merits of an investment opportunity. This could be something as simple as making allowance for interest income from a cash ISA, dividends from buying a gilt, or rental income from a property, and you can vary your opportunity cost assumption accordingly. The rate you choose is used to discount the cashflows from the investment to arrive at a net present value.

If you make an NPV calculation and assume that the opportunity cost (the rate at which you discount the cashflows) is 0%, then the answer will mirror the result you get from an IRR calculation for the same proposition.

Using an opportunity cost or discount rate of 0%, we find that the cashflows do not turn positive (i.e. exceed the annuity purchase of £100,000) until age 81 for the level annuitant and age 86 for the index-linked annuitant, which is in line with when IRRs turn positive, as illustrated above.

If we assume that the client reasonably could earn 2% per annum on his funds if he invested them elsewhere and use that as the opportunity cost to discount the cashflows, the level annuity does not exceed that hurdle rate until after the client reaches 85, while the index-linked annuity does not beat that hurdle rate until the client reaches 91.

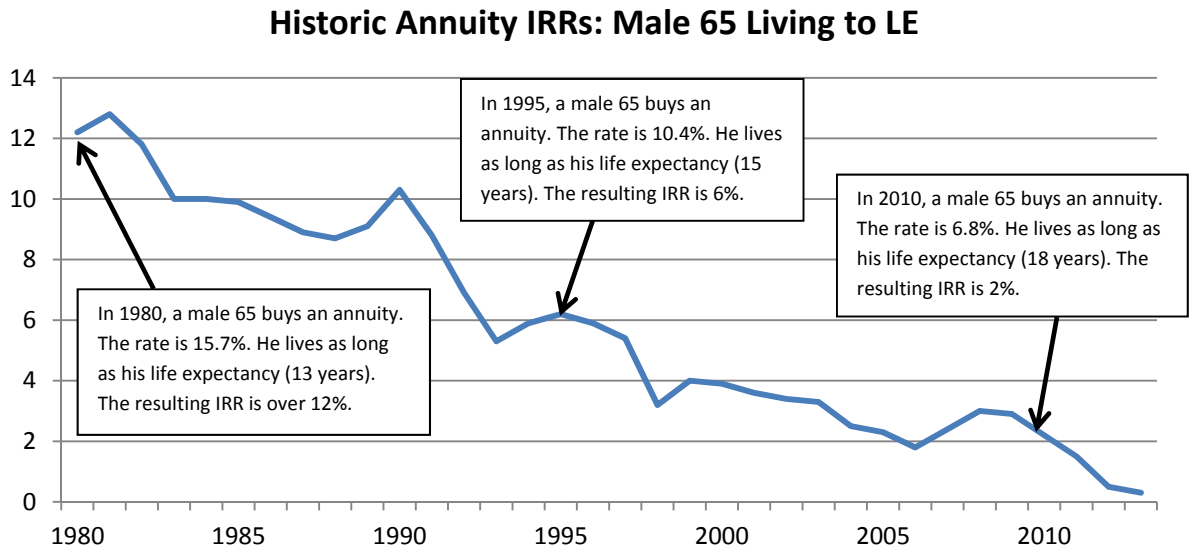
We used the phrase "hurdle rate" in the preceding paragraph, and you can use the NPV technique to set a minimum acceptable required return and see if the investment proposition (in this case an annuity) will satisfy the client's requirements.

Let us now assume that the client believes that he should be able to earn 2% per annum on his money from doing something else with it other than buy an annuity. He might also take the view that, if he is going to buy an annuity and lose any further access to it (suffer complete "illiquidity"), he needs additional compensation for the loss of flexibility. All things considered he might, for example, decide that a 5% return is the minimum he needs to balance out the loss of access and the investment return he could have achieved elsewhere. Based on our earlier examples, the level annuity payments would not meet the 5% hurdle rate unless the client lived to be at least 101, while the index-linked annuity would only deliver the required 5% return on cashflows if he reached 111.

Annuity Rate Trend

Trend in annuity IRRs

As we demonstrated above, the value-for-money from standard-rated annuities is currently rather poor for many purchasers (those with guaranteed annuity options or highly-rated impaired lives need to be considered separately). We wondered what things looked like in the past, and decided to look at historic annuity rates, and how long annuities might have been expected to pay out given life expectancy at each annuity purchase point in time.



Accordingly, we examined historic annuity rates (male aged 65, level, 5 year guarantee) since 1980 and calculated the IRR of the cashflows on the assumption that the annuitant lives as long as the interim life expectancy (as per GAD tables) applicable at the time the annuity was purchased (i.e. assumed life expectancy ("LE") for a 65 man taking out an annuity in 1980 was 13 years, compared to 15 years for a 65 year old man in 1997, and 18 years for a 65 year old man today. The chart above shows how nominal return IRRs assuming death at LE have changed.

Two way squeeze

A combination of increasing life expectancy and reducing nominal interest rates has squeezed the life out of annuities, as measured by the nominal return IRR to assumed life expectancy, which was as high as 13% for a new male annuitant in 1981 and is close to 0% today meaning that, if the 65 year old dies "on cue" having attained his life expectancy, he would do not much better than simply get back from the insurer what he paid in, but with no interest and no "illiquidity" compensation for suffering permanent lack of access to his funds.

Future of Longevity Protection

Bulk business

Before we get to the future of the individual annuity market, a few words on bulk business (buy-out, buy-ins and other transactions involving defined benefit pension schemes).

The UK's private sector final salary schemes have around £1,300bn of liabilities (rising to £1,800bn if measured on a full buy-out basis), the vast majority of which relate to schemes that have closed to new members and, in many cases to accruals, with concomitant rapidly advancing maturity.

There continues to be considerable interest from sponsors and trustees in de-risking schemes, and we expect that, over time, bulk annuity new business will grow, to some extent as a result of existing players that have serviced both the individual and bulk sectors devoting more capital to bulks given the downturn in individual annuity business, as well as the entry into the bulk arena of providers that, up until now, had only written individual annuities.

In the case of buy-out transactions, the scheme members do end up with individual annuities from the life office.

The key point is that the shortfall in longevity protection opportunity from the decline in the individual annuity space to some extent at least is likely to be mitigated by growth in bulk activity which, fundamentally driven by the desire on the part of schemes to manage, mitigate and reduce existing risk exposures, is not hugely sensitive to interest rate and longevity factors when viewed over the medium term.

Sensitivity to investment yields & longevity

In contrast, as was illustrated by the chart on the previous page and the commentary on IRRs and NPVs earlier in this document, in the individual annuity market, now that annuities have become just one option among many (including sticking money in a cash ISA or just spending it), the underlying relative value for money (currently poor for the typical, averagely healthy purchaser) is set to keep new business volumes depressed for some time to come, at least.

Having said that, the possible ending of the multi-decade bond bull market (which we talk about more later on) and attendant rise in gilt and corporate bond yields could cause annuity rates to rise to levels where the absolute and relative cashflows (combined with the inherent longevity protection) could make for a more attractive proposition than currently is the case.

However, in contrast to the 1980s and much of the 1990s, power over the setting of interest rates is now in hand of the Bank of England, which has a 2% CPI inflation target which, if adhered to, should serve to keep longer term rates toward the low end of recent historical experience.

GAOs

Between them, UK life offices currently hold in the region of £30bn of reserves for pension savings with guaranteed annuity rate options. In many cases the rates on offer are 9%, 10% or more, meaning that take-up of options is likely to continue to be high, meaning that a substantial proportion of individual annuity purchases will be in respect of policyholders exercising their GAOs.

Annuitisation at older age

Non-existent market

Following the 2014 Budget announcement there has been a lot of talk about the future for individual annuities. There are many who rush to support the thesis that, in future, many retirees will defer annuitisation until later in life, but let us consider some basic practicalities.

Firstly, up until now there has been no market for the manufacture, distribution and on-going management of annuities sold to 85 year olds. As we outline below, any such market would likely be very different from the provision of annuities to 65 year olds.

Secondly, what if everyone retiring from now on followed the suggestion of waiting until much later (aged 75 or older) until annuitising? In that extreme scenario, there would be no mainstream individual annuity sales for 10 years or more! What happens to annuity industry human capital in the interim? Just sayin'…

Low mean, high variance

An average 65 year old man has a life expectancy of 18.2 years. If he dies 4 years earlier or 4 years later than expected, this represents a variance in outcome of just over 20%.

In contrast, an 85 year old man has a life expectancy of 5.8 years. If he dies 4 years earlier or 4 years later than expected, this represents a variance of almost 70%.

In the comparison, it can be seen that the proportionate longevity risks are much greater for 85 year olds, whose life expectancies may be characterised as "low mean, high variance", which could make the concept of insuring against relatively large variations in remaining life expectancy quite attractive for them, although we think that such business generally will need to be individually underwritten.

Cognition challenge & living financial wills

Apart from the increased variance in remaining life expectancy outcomes, those at older ages are increasingly at risk of reduction in their cognitive capabilities, and annuity purchase might appeal as an offset to the risk that their ability to understand financial advice and make informed decisions might diminish in future.

Given the huge upcoming increase in the numbers of those at very old ages, perhaps we will see the emergence of living financial wills, where younger retirees in sound mental condition might stipulate financial arrangements to be implemented in the event of future impairment. (Of course, such arrangements in some cases could attract challenges from other family members and, possibly, living testators who insist that they are still in or have regained good mental health.)

Non-healthy life expectancy

As noted above, 65 year old men and women have about 10 years of healthy life expectancy.

If we are to see the individual annuity sector switch from transacting with 60 and 65 year olds to being focused on transacting with those in their mid/late 70s and early 80s, that is quite a different market altogether, and will be one where the majority of applicants will likely be suffering an impairment which, together with their relatively low mean and high variance life expectancy, will see thorough medical underwriting as the "norm".

Later life deferred annuities ("longevity insurance")

It is possible that we will see the return of old-fashioned non profit deferred annuities but this time, instead of being bought with regular premiums by a 45 year old wishing to secure a guaranteed income amount from age 65, prospectively being purchased with a lump sum by a 65 year old wishing to secure a guaranteed income that commences at, say, age 85.

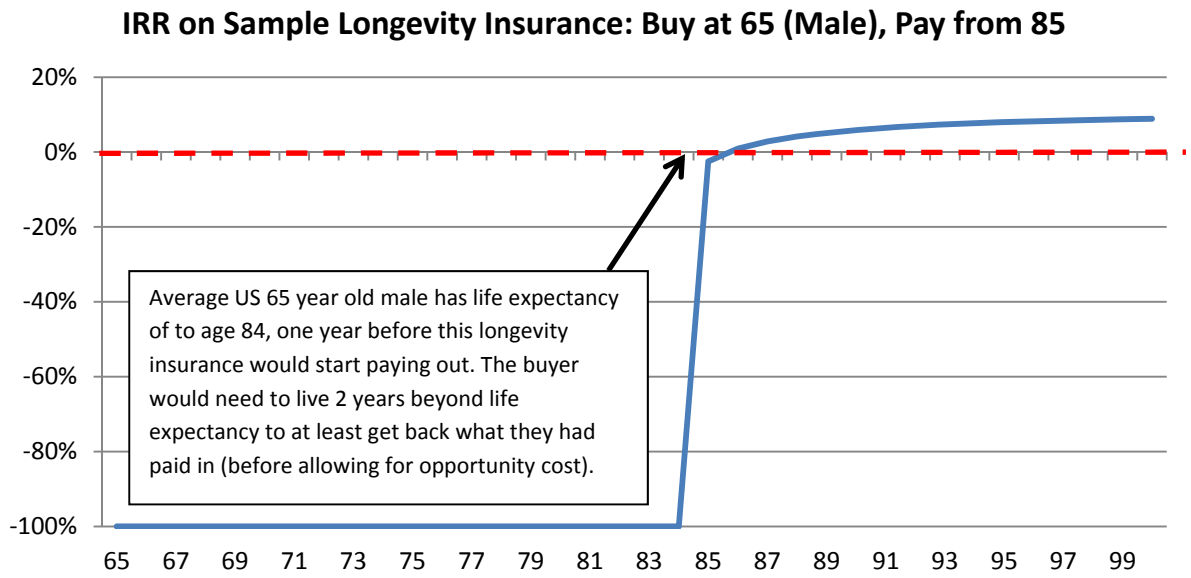
In the US, where very few retirees annuitise, some providers (led by New York Life) offer such later life non profit deferred annuities, which are known over there as "longevity insurance". These are pure pension products with no annual fees, capable of being written on joint as well as single lives and can be structured to defer income for as long as 40 years or more.

US example with IRRs

To provide an idea of the benefits available, we have seen examples of US providers offering a 65 year old male an annuity of $60,000 a year for life commencing at age 85 in return for a lump sum payment of $100,000.

Let's use our trusty money-weighted approach and look at the IRR for this example in the context of life expectancy. According to the US Social Security Administration, the average 65 year old US male has a remaining life expectancy of 19 years (slightly higher than his UK counterpart) and, if he dies "on schedule" (i.e. at age 84), the IRR is -100%, as it would be in the event of death at any point before he reaches 85.

If he survives to 85, his remaining average (US) life expectancy from that point is 6 years and, if he dies in line with that expectancy, the IRR would be 6%. If he lived to 95, the IRR would be 8%, rising to 9% if he made it to 100.



Viewed from an "investment" angle, at current rates (which may change) this looks a somewhat unfavourably skewed risk-reward trade-off, especially when one takes into account the probability of death before payouts commence and the opportunity cost on the money tied up.

Life expectancy probability context

The nature of the "bet" is quite different for a 65 year old buying a deferred annuity commencing at age 85, as compared with a 45 year old buying a deferred annuity commencing at age 65.

- Taking the survival slope approach we illustrated on pages 37 to 38, the probability of a 45 year old UK man living for 20 years to reach age 65 is 90% (9-in-10 chance), and the probability (calculated at age 45) of him living 30 years to reach age 75 (receiving 10 years of deferred annuity income starting at age 65) is 75% (3-in-4 chance).

- In contrast, the probability of a 65 year old UK man living for 20 years to reach age 85 is 48% (less than 1-in-2 chance), and the probability (calculated at age 65) of him living to 95 (receiving 10 years of deferred annuity income starting at age 65) is 9% (less than 1-in-10 chance).

These probabilities help us put the IRRs into context of any longevity insurance provided. The 45 year old is odds-on to survive and get paid out from a deferred annuity commencing in 20 years, while the 65 year old's chances are relatively rather slim.

Bells & whistles

The US longevity insurance example set out above was a plain vanilla one. Across the range of offerings currently on the market, there are optional product "extras" (at a price) that include: the ability to adjust the income start date; "cash out" options; the flexibility to make withdrawals before commencement of income; cash refund features such that, if the annuitant(s) die(s) before the income payments received equal the premium paid, the beneficiaries will receive a lump sum equalling the premium, less all income payments received. Cost of living adjustments can also be specified.

Marketing

In the US, longevity insurance contracts are often effectively marketed as an asset class held to diversify an in-retirement portfolio.

It is not uncommon for strategies to be suggested that involve splitting the in-retirement assets into "buckets", with the "regular" assets planned to be run down initially (say, between ages 65 and 85), with the longevity insurance then kicking in subsequently (e.g. from age 85) to provide income thereafter.

Individual longevity swaps

In the new in-retirement world, we could see some providers offering individual longevity swaps.

These are essentially longevity-based contracts for difference priced against a survival curve that could be purchased as an optional overlay to an on or off platform investment portfolio, similar to arrangements commonly used by final salary pension schemes, and which could kick in regular income or a bullet payment once the purchase had reached a certain age.

In other words, the investor would own a longevity derivative as an asset class within his or her portfolio to provide some longevity protection.

SECTION 9

MAJOR ASSET CLASSES

"Money, it's a gas
Grab that cash with both hands and make a stash"

Pink Floyd

Equities

Inflation-beating long term outperformance

There is no doubt that, over the longer term, equities (which broadly can be said to reflect companies' share of long term economic growth) have been the asset class you can rely on to grow your personal wealth ahead of inflation.

According to Dimson, Marsh and Staunton of the London Business School, taking the 114 year period from 1900 to 2013, the real value of UK equities with income reinvested, grew by a factor of 372.4 as compared to 4.9 for bonds and 2.8 for bills (i.e. short term, money market investments).

To be clear about this, if you had invested £1,000 in UK equities on 1 January 1900 and sat back while your fund grew with dividends reinvested along the way, your pot would have been worth £372,400 AFTER adjusting for inflation by 31 December 2013. (You also would be VERY old!)

Adjusting for inflation, over that 114 year period UK equities generated "real" returns of 5.3% per annum compound, compared to 1.4% for UK bonds and 0.9% for UK bills.

During the same period, adjusting for inflation, US equities generated "real" returns of 6.5% per annum compound, compared to 1.9% for UK bonds and 0.9% for UK bills.

Real returns on equities bonds and bills (% p.a. compound) for selected territories

Territory/asset class	*Past 114 years (1900-2013)*			*Past 50 years (1964-2013)*		
	Equities	*Bonds*	*Bills*	*Equities*	*Bonds*	*Bills*
Australia	7.4	1.5	0.7	5.5	2.1	2.2
Canada	5.7	2.1	1.5	5.1	3.8	2.2
UK	5.3	1.4	0.9	6.0	2.6	1.4
US	6.5	1.9	0.9	5.8	3.0	0.9
World	5.2	1.8	0.9	5.4	4.1	0.9
World ex-US	4.5	1.6	0.9	5.6	4.8	0.9

As can be seen from the table above, over the period from 1900 to 2013, the UK equities (total return) generated a real return (i.e. in excess of inflation) of 5.3% per annum compound, while US equities generated a real return of 6.5% over the same period. Over the past 50 years, UK equities delivered a real return of 6.0% per annum compound, while US equities generated 5.8% per annum. These equity returns were also considerably ahead of the growth in aggregate and per capita real GDP.

To enable like-for-like comparison across different geographical areas, the data in the table above have been converted to $US. Alternative £-based data from the Barclays Equity Gilt study (tabulated below) found that the real return on UK equities between 1900 and 2013 was 5.1%, compared to 1.2% on gilts and 0.8% on cash (i.e. the £-based real returns were about 0.2% per annum lower than the US$-converted ones). Over the past 50 years, the Barclays study has the real return on UK equities as 5.5%, compared to 2.5% on gilts and 1.5% on cash.

Real return on UK equities, gilts & cash

Asset class	*Real return (% p.a.) over period to end 2013:*			
	10 yrs	*20 yrs*	*50 yrs*	*114 yrs*
UK equities	5.0	4.1	5.5	5.1
Gilts	2.5	3.5	2.5	1.2
Cash	-0.5	1.3	1.5	0.8

The Dimson, March & Staunton data and the Barclays study show broadly similar trends, and we will chop and change between them as needs dictate in this chapter.

Contribution from dividends

To preview something we shall cover in more depth later on, a big part of the real return on equities has come from dividends. Of the UK's 5.3% per inflation outperformance, 0.7% was from real capital appreciation, while 4.6% was from dividends. In the case of US equities, real capital appreciation was 2.2%, while dividends contributed 4.2%.

Decomposition of real equity returns for selected "Anglo Saxon" economies (1900-2013)

Country	*Growth rate of real dividends (%)*	*Expansion in dividend yield (%)*	*Real appreciation of equities (%)*	*Annualised dividend yield (%)*	*Real total return on equities (%)*
Australia	1.13	-0.42	1.56	5.72	7.37
Canada	0.90	-0.43	1.34	4.35	5.75
UK	0.59	-0.10	0.69	4.61	5.33
US	1.63	-0.54	2.18	4.18	6.45

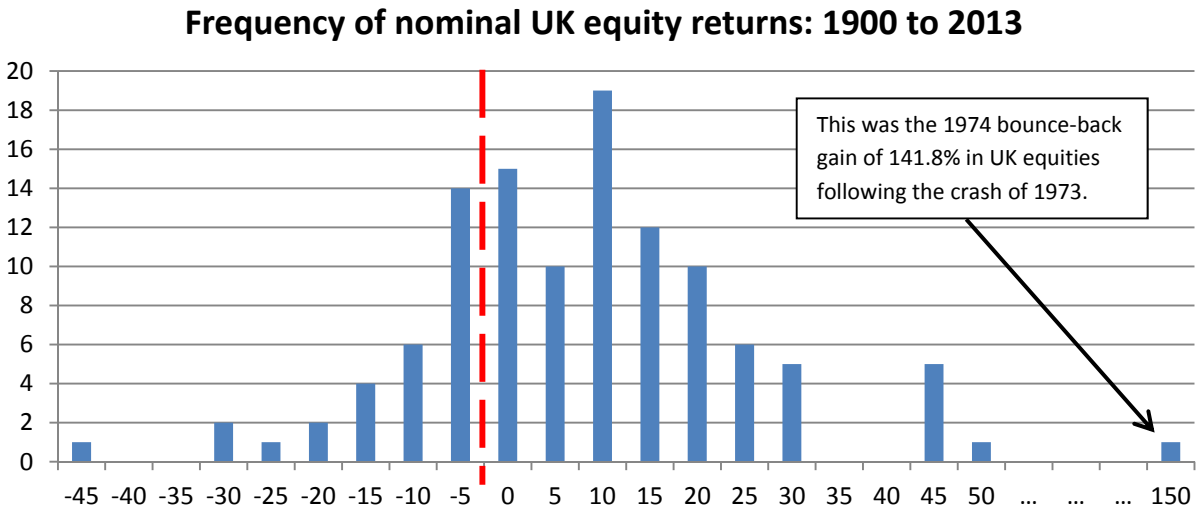
By way of explanation, in the table above, "expansion of dividend yield" measures the extent to which dividend yields (but not necessarily the amount of the dividend) change. A positive number (of which there are none in that column in the table above) would indicate that dividends yields (i.e. the amount of dividend relative to share price) increased, while a negative number shows that dividend yields decreased.

Over the long term, negative expansion in dividend yields has typically been driven by rising equity prices rather falling dividend amounts, which has boosted equity market performance.

Problem solved!

Well, this all seems like a no-brainer. For clients in retirement looking for an investment that will beat off the predations of inflation and help them maintain, and perhaps gradually improve their standard of living, it's equities all the way…Or is it?...

Not so fast!

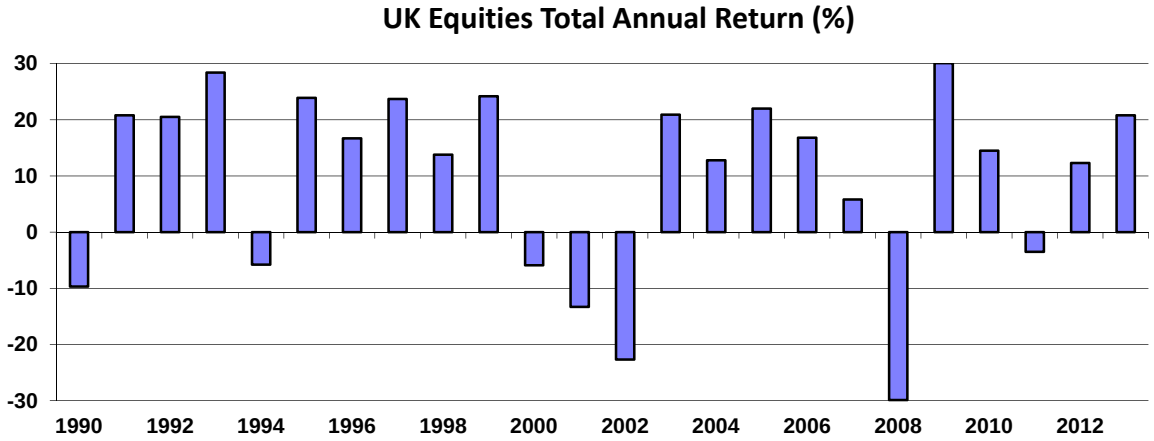


While Rip van Winkle may have had a pleasant surprise on waking on New Year's Eve 2013 some 114 years after purchasing his equity tracker fund accumulation units, the road travelled while he kipped his way through the years was a somewhat bumpy one, as is immediately evident from the chart above based on data from the 2014 Barclays Equity Gilt Study.

When we look at the distribution of UK equity nominal returns between 1900 and 2013 as illustrated in the chart above (which plots frequency of returns in 5% increments), in 30 of those 114 calendar years (to the left of the broken red line) the outcome was negative. (By way of comparison, nominal returns on gilts as per Barclays were negative in 33 of those same 114 calendar years.)

The average decline in a down year was -9.6%. Using the Barclays data, the worst down year, (influenced by the oil price shock) with a nominal return of -43.6% was 1974, which was followed in 1975 by a gain of 141.8%. (To save you the trouble, taking 1974 and 1975 together, the total nominal return over the two years was 36.3%, or 16.7% per annum compound.)

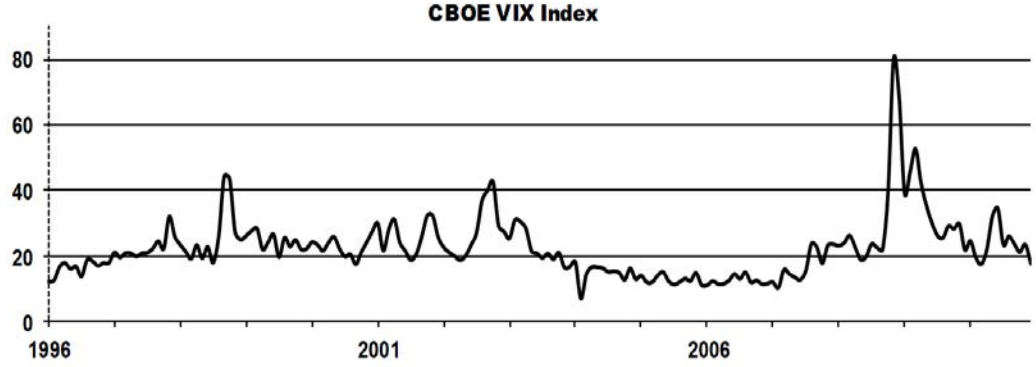
More recent experience is captured by the chart below, which shows calendar year total returns on the UK FTSE All Share index from 1990 to 2013. Over the 24 years under review the cumulative return was 612%, equivalent to 8.5% per annum compound, which is good news for those accumulating.



However, in 7 out of the 24 years returns were negative which, for those decumulating is not so good and, indeed, could be disastrous. The total return from 2000 to 2002 inclusive was -37%, and a strategy of taking 5% per annum withdrawals from a fund would have led to an investor's pot being depleted by more than half during that short period.

Volatility: the "fear index"

The chart below is the CBOE VIX index (sometimes also known as the "fear index"), which is based on a weighted average of options with a constant maturity of 30 days to expiration on the S&P 500 (which has reasonably close correlation to the FTSE All Share index).



The headline "score" roughly translates to the expected percentage movement in the S&P 500 over the next 30 days, on an annualised basis – e.g. if the VIX is at 15, this represents an expected annualised change of 15% over the next 30 days. The higher the VIX level, the more volatile equities

are expected to be. Further, history has tended to show that the VIX is high during times of equity market downturns and relatively low during times when stocks prices are moving ahead over a sustained period. The spike over 80 in 2008 occurred at the time of the Lehman Brothers collapse.

We will go on to look at non-market measures of equity volatility immediately below, but we will return to the issue of market pricing of equity risk and the use of derivatives in decumulation risk management in the section commencing on page 99.

Relatively speaking

So, while having been shown capable of providing outstanding inflation-beating performance over the longer term, the returns from equities are volatile and risky when considered over the near term, and can vary significantly from one period to another.

Based on the 2014 Barclays Equity Gilt Study, the table below provides a quick snapshot of the relative performance and riskiness of equities, bonds and a cash equivalent (treasury bills), set alongside inflation, all measured in calendar year steps over the past 114 years.

Returns on UK equities, gilts & cash (1900-2013)				
Item	*Equities*	*Gilts*	*T-Bills*	*Inflation*
Nominal return (p.a.)	10.8	5.7	4.8	4.1
Standard deviation	20.5	11.0	3.8	6.6
Real return (p.a.)	5.1	1.2	0.9	NA
Highest year (nominal)	-43.6	-19.3	0.0	-26.0
Lowest year (nominal)	141.8	47.3	17.2	24.9
Average “up year” return (nominal)	18.1	10.1	4.8	NA
Average “down year” return (nominal)	-9.6	-5.0	NA	NA

It can be seen that, over the 114 year period, equities have comfortably outpaced gilts and cash and, what is more, managed to deliver attractive real (i.e. after inflation) returns. By the way, with regard to inflation, the -26.0% outcome was experienced in 1921, in the midst of the UK depression.

It is also evident that, using Barclays data and measured from 1990 to 2013, equities are appreciably riskier than bonds or cash. The standard deviation on equities over the period was 20.5, compared to 11.0 for gilts (which goes to show that gilts are not exactly involatile in terms of investment performance from one period to another – remember that gilt nominal returns were negative in 33 out of the 114 calendar years), and 3.8 for T-Bills.

As we discussed above, looking at returns in any one calendar year, equities have thrown up (albeit most exceptionally during the 1970s oil price shock) remarkable extremes of outcomes, but note also that there have been considerable variations in the returns produced by gilts, for example a nominal return in 1916 of -19.3%, which equated to -37.8% inflation adjusted.

If we treat as an aberration the 1973-1975 period, which saw the OPEC embargo and oil price shock as well as the UK secondary banking crisis (arising to a great extent from mayhem in the residential property market), if we look at the period from 1976 to 2013 inclusive, UK equities’ standard deviation (using the Barclays data) comes out at 15.5 (with 1976-2013 total returns of 12.7% per annum compound), compared to the 11.2 standard deviation on gilts for the same period (total returns between 1976-2013 of 10.1% per annum compound).

Chances of equity outperformance

An examination of the Barclays Equity Gilt Study data covering the 114 years from 1900-2013 shows that the chances of equities outperforming cash or gilts increases, the longer the investment holding period.

The two tables show the probability of outperformance over varying investment time horizons.

Probability of UK equity outperformance against cash (1900-2013)						
Item	*Number of consecutive years*					
	2	*3*	*4*	*5*	*10*	*18*
Outperform cash	76	78	80	82	95	96
Underperform cash	37	34	31	28	10	1
Total number of years	113	112	111	110	105	97
Probability of equity outperformance	**67%**	**70%**	**72%**	**75%**	**90%**	**99%**

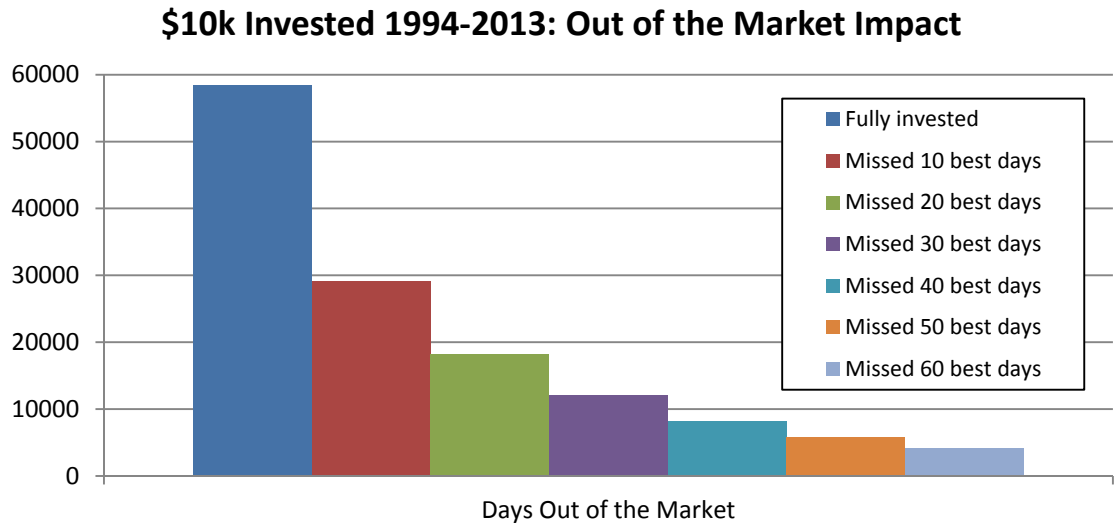
Probability of UK equity outperformance against gilts (1900-2013)						
Item	*Number of consecutive years*					
	2	*3*	*4*	*5*	*10*	*18*
Outperform gilts	77	83	84	81	83	85
Underperform gilts	36	29	27	29	22	12
Total number of years	113	12	111	110	105	97
Probability of equity outperformance	**68%**	**74%**	**76%**	**74%**	**79%**	**88%**

Taking equities versus cash, it can be seen that, between 1900-2013 there were 112 3-year periods, in which equities outperformed cash 78 times, and cash outperformed equities 34 times meaning that, measured over 3 year periods, equities outperformed cash 70% of the time. Taking 18 year continuous investment periods (which happen to coincide with the average remaining life expectancy of a 65 year old male), between 1900 and 2013 there were 97 of these, and equities outpaced cash in all but one such 18 year periods.

Not only does the chance of equity outperformance increase according to the length of investment holding period, the volatility of equities (as measured by standard deviation) also decreases with time. So, for those that can, the message appears to be to buy and hold for the long term. We look further at the issue of buying and holding below.

Tripping up on timing

The data above suggests that, when it comes to equity investing staying put for the long term produces the best results. What is more, there is a good deal of evidence that demonstrates that, taking an overly active approach and trying to time the market can do more harm than good.



The chart above, based on total returns on the S&P 500 and analysis by JP Morgan Asset Management shows the performance of $10,000 kept fully invested over the 20 years to end 2013,

and then compares this with the outcome if, as a result of jobbing in and out of the market, the investors missed out on some of the best days.

If the client remained fully invested, $10,000 would have grown to $58,332, representing a 9.2% per annum return. Being out of the market and missing the 10 best days would have seen the return fall to $29,111 (5.5% per annum), while missing out on the 30 best days would have resulted in a return of only $11,984 (0.9% per annum), and missing out on the best 60 days would have seen the investment dwindle to $4,073 (-4.4% per annum).

Bonds

Definitions & data

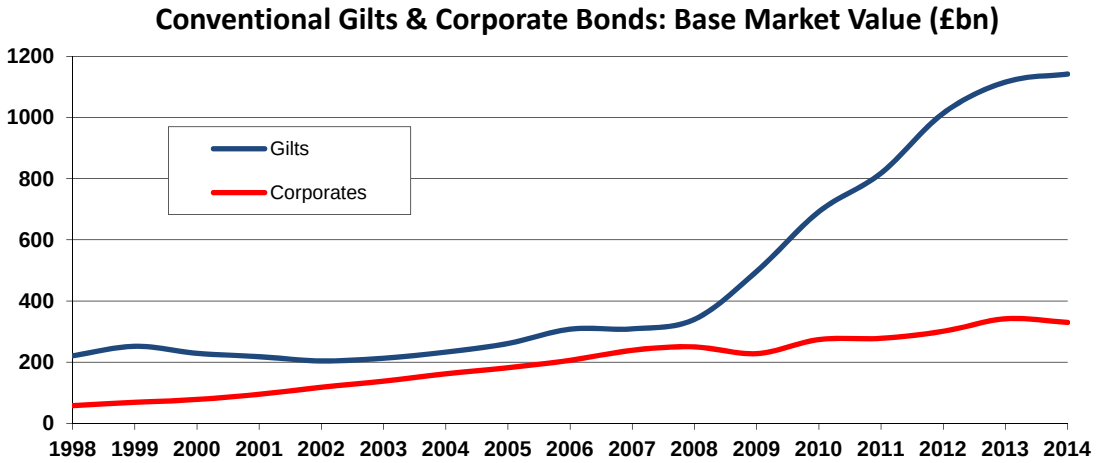
In this section, our focus is on UK fixed interest securities. Crudely, these can be divided into government bonds (gilts) and corporate bonds.

When it comes to longer term data in this section, we will be referring to gilts and using a mix of FSTE, Cazalet, Barclays and Dimson et al data.

As for sterling-denominated corporate bonds, these only began to be issued (and held) in any significant quantity following changes to the corporation tax regime in 1997, following which the attractions of raising capital via the issue of debt securities increased relative to raising capital through the issue of equities. As a result, data series for sterling corporate bonds go back no farther than 1998.

Sterling bond market size

The chart above shows the progression in the base market value of sterling corporate bonds and non-indexed gilts.



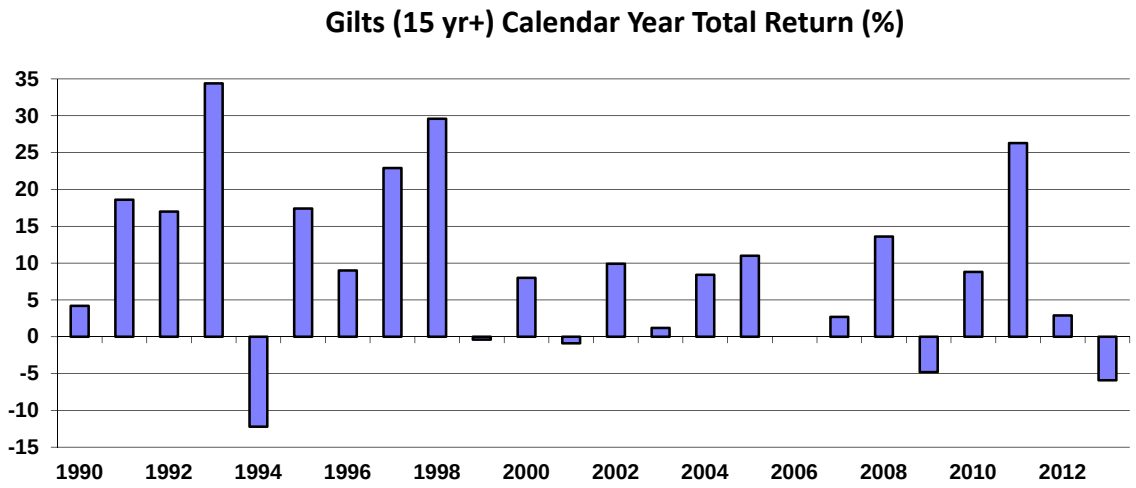
As noted above, the sterling corporate bond market was kick-started following corporation tax changes in the late 1990s.

In the early 2000s it looked as if the value of outstanding corporates might catch up with gilts. However, the huge increase in government borrowing that took place from the mid 2000s onwards, together with the Bank of England's absorption of £375m of gilts via its quantitative easing ("QE") programme subsequently led to the quantum of gilts in issue rocketing to the point where it now is more than 3 times the size of corporate bond outstandings.

Gilts

Gilts are often referred to as "safe" or "risk-free", and that may be said to be the case if one were to buy a government bond, collect its dividends and hold it to maturity, not thinking of fluctuations in the underlying value of the stock or having regard to reinvestment risk in respect of dividends received. However, the reality is that, for all their "safety", gilts can provide quite volatile returns

from time to time and, indeed, can generate losses as well as profits if traded between issue and maturity. The chart below shows the calendar year total returns on 15 year+ gilts from 1990 to 2013.



Over the 24 years covered by the chart above, long gilts generated an average return of 7.9% per annum compound. Returns in any one calendar year ranged from a high of +34.4% in 1993, to a low of -12.2% in 1994, with negative returns recorded once in every 4 years on average.

Over the longer term, based on Barclays data covering the 114 years from 1900 to 2013, the calendar year nominal total return on UK gilts has been negative on 33 occasions (equivalent to just over one year in three), and extremes of returns in any single year have ranged from as low as -19.3% in 1916 to as high as 47.3% in 1982.

On the basis of the Barclays data shown in the table above, the standard deviation on gilts was 11.0 between 1900 and 2013, compared to 20.5 on equities, but this relatively low volatility on the part of gilts was accompanied by a very substantial deficiency in nominal and real returns relative to equities, which outperformed bonds by almost 4% per annum compound in inflation-adjusted terms.

Risks

Bond risks	
Interest rate/duration	The impact of changing yields on market values from time to time will vary depending on the term to maturity of a bond and its coupon. We touch on this below.
Intervention risk	The Bank of England, the US Federal Reserve and, prospectively, the European Central Bank have been active in undertaking "unconventional" market intervention measures, most notably quantitative easing and "forward guidance" in seeking to manipulate short and longer term interest rates to levels (usually lower) than might have prevailed if dictated by market forces and if they had not taken action.
Issue-specific risk	Some corporate bonds may incorporate features such as the option for the issuer to redeem early that may affect the return received by the bondholder.
Default risk	The risk that the bondholder might default by not paying on time some or all of any coupons or principal due. This risk is not just confined to corporate bonds – think of Argentina, Russia, Greece and Cyprus.
Liquidity risk	Whereas gilt issues are big and liquid and supported by substantial futures markets, corporate bonds are much smaller in size and often tightly held and infrequently traded creating the risk that, if many holders want to sell at once, they may not find buyers or, if left still holding their bonds, may not have reliable price information.
Reinvestment risk	When holding a portfolio of bonds, a major factor impacting on performance is the ability to reinvest dividend income on terms that are attractive and, if being within a decumulation strategy, that match the investor's cashflow strategy.

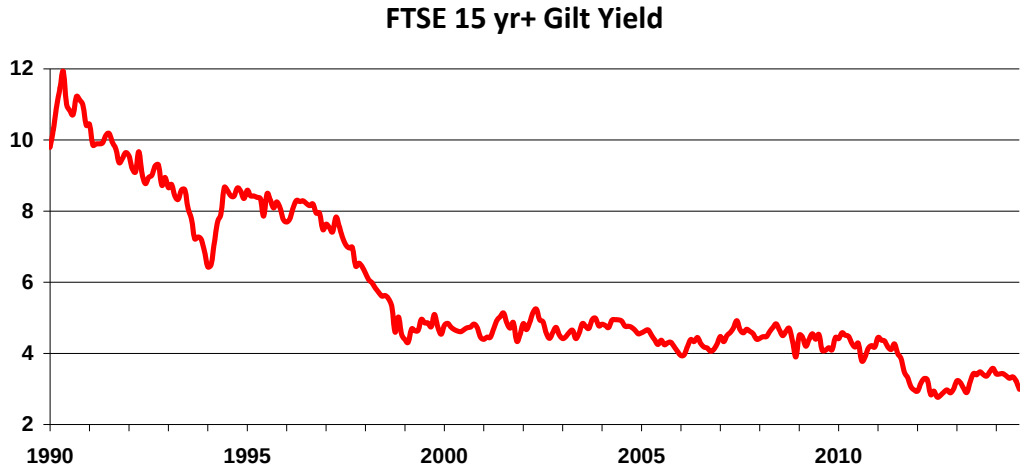
We are starting to see that investing in bonds, even gilts, is not without potential pitfalls. As set out in the table immediately above, the risks attaching to fixed interest securities include the following:

- *Interest rate/duration risk*
- *Intervention risk*
- *Issue-specific risk*
- *Default risk*
- *Liquidity risk*
- *Reinvestment risk*

In addition to these risks, as we discussed earlier, holders of fixed interest securities are exposed to inflation risk, which can erode the real value of a bond if held to maturity and can cause the price of bonds to move sharply up or down as investors assess whether they are providing enough return to compensate for the impact of rises or falls in the cost of living.

Impact of yield changes on bond capital values (duration risk)

Returns on gilts and other bonds are influenced by interest rates. The next chart below shows the progression of yields on 15 year+ gilts over the same period.



Comparison of this chart with the one just above showing calendar year total returns illustrates the relationship between yields and returns. As bond yields fall so capital values rise, and vice versa (as exemplified by the movements in 1993-1995).

As far as capital value is concerned, some bonds are more sensitive to yield changes than others. The impact on a bond's capital value (and total return) of a particular degree of change in yields depends on how long the bond has left to run. The longer the time left to maturity (the "tenor"), the greater the impact of a particular amount of yield change, and vice versa.

Thus, let us take two bonds, both standing at 100 with a coupon of 5% and yielding 5%. One has 6 years to run, and the other has 10 years to run. If investor demand meant that the yield to maturity on both of these were to fall by 100 basis points (from 5% to 4%), the capital value of the 10 year bond would rise by more than that of the 6 year bond.

A technique known as "Macaulay's duration" is used to measure how sensitive a particular bond is to changes in interest rates. The duration score is the amount by which the price of a bond would change of a 1% reduction in interest rates.

In the table below, we have 5 bonds (maturities ranging from 3 years to 25 years) each with a coupon of 5% and a current market yield of 5%, and calculate the impact on capital value (the bond price) of a 1% reduction in market yield (from 5% to 4%) for each of them.

Impact (duration) of 1% reduction in yield to maturity from 5% to 4%:	
Term to maturity	*Duration (yrs)*
3 years	2.9
6 years	5.3
10 years	8.1
15 years	10.9
25 years	14.8

It can be seen that the longer the term to maturity, the greater the impact on the bond price. The duration of the 10 year bond with a market price of 100 and a coupon of 5% is 8.1, which tells us that a 1% reduction in the yield to maturity would be accompanied by a rise in the price to 108.1 (or, put the other way round, if the price of the bond rose from 100 to 108.1, that would mean that the yield to maturity based on a price of 108.1 would fall from 5% to 4%).

The rule is that long bonds with low coupons (e.g. 25 years with a coupon of 5%) will have the greatest duration, while short bonds with high coupons (e.g. 3 years with a coupon of 9%) will have the lowest duration.

Tactically, during times of falling yields, adventurous investors seeking to capitalise on such a trend would seek to add duration to their bond portfolios to get more bang for their bond bucks.

Conversely, in an environment of rising interest rates, active bond investors would be looking to reduce duration.

Yield curves

A yield curve, often referred to as "the term structure of interest rates" is simply a curve on a chart in which the yield of fixed interest securities (usually gilts in the UK) is plotted against the length of time they have to run to maturity.

Sometimes, by way of shorthand, bond market participants cite the difference between 2 year yields and 10 year yields as the yield curve: "Twos and tens are 2.5 today, compared to 2.7 yesterday" means 10 year yields are 2.5% higher than 2 year yields today, compared to 2.7% higher yesterday (indicating that the curve has "flattened" a little, which we will talk about below).

Generally, yield curves slope upwards to the right, reflecting the fact that investors usually demand to be compensated by receiving higher yields for taking on the increased risk of investing in longer dated bonds. (Remember the "duration" calculations we discussed above.)

The shape of yield curves can and does change from time to time, sometimes dramatically. Curves can flatten, steepen, and even become inverted (where shorter term yields are higher than those on longer term bonds).

Flattening

Flattening, under which the difference between the yields on shorter and longer dated bonds is narrowing, can be brought about by shorter term rates rising, or by longer term rates falling, or even a combination of the two.

Generally, yield curves flatten during periods when investors' expectations for future inflation are being pared back and/or expectations for future economic growth are being scaled back. If inflation is thought likely to be trending downward, investors seek less compensation for holding longer term fixed interest bonds.

Steepening

Steepening, under which the difference between the yields on shorter and longer dated bonds is increasing, generally arises from longer term rates rising, as investors expectations for future inflation increase, quite commonly during periods of economic expansion.

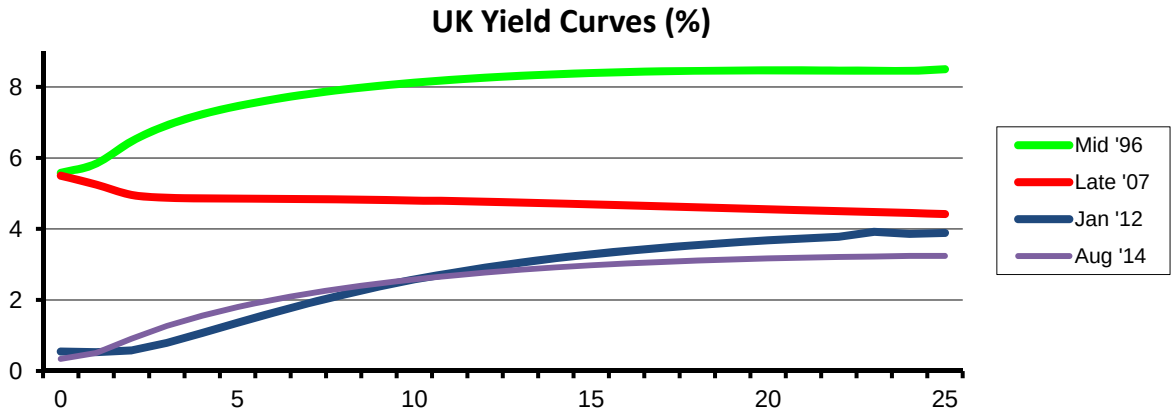
If inflation is thought likely to be trending upwards, investors seek more compensation for holding longer term fixed interest bonds. Sometimes, steepening arises from shorter term rates declining as longer term rates increase.

Inversion

Occasionally, yield curves become "inverted", such that shorter term rates are higher than longer term ones. Inverted yield curves tend to manifest themselves when investors think that an economic downturn is coming and are willing to accept low yields today if they think that interest rates will fall further as a result of declining economic activity.

Central bank intervention

The last few years have seen extraordinary central bank intervention, most notably by the Bank of England and the US Federal Reserve, which have been actively intervening in bond markets with the express purpose of depressing interest rates generally and, tactically, manipulating the yield curve for policy objectives (such as activity relating to 30 year US bonds, off which US mortgages are priced).



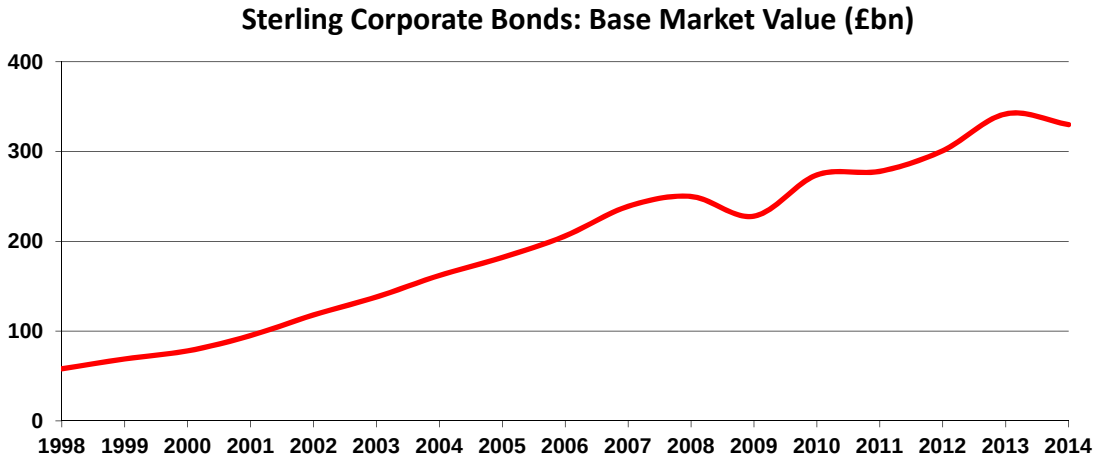
The chart above shows sample UK yield curves at various points during the past couple of decades.

Some commentary on these yield curves appears immediately below.

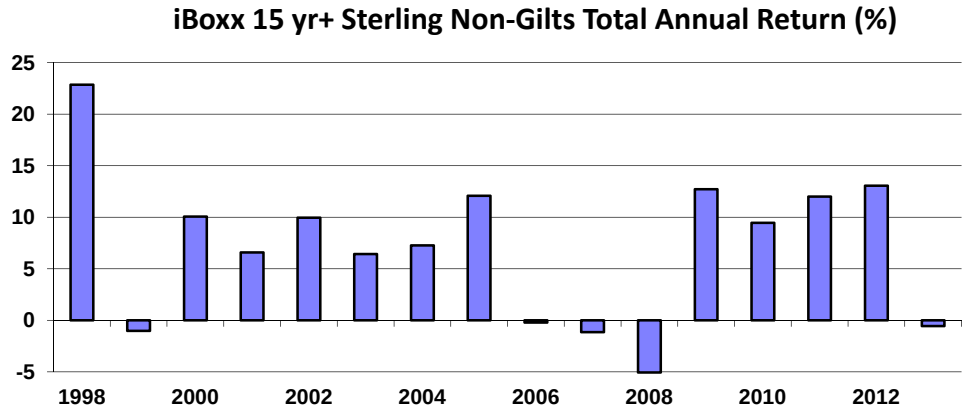
Mid 1996	This is a classic upward-sloping curve from mid 1996, but we are unlikely to see yields at these levels again, the reason being that, in 1998, HM Government handed power over the setting of interest rates to the Bank of England, which has been mandated to meet a CPI inflation target of 2% per annum.
Late 2007	The curve was downward sloping ("inverted") and, true to form (as per the theory explained above), this presaged the economic recession of 2008 and 2009.
Jan 2012	The curve was flat for the first 3 years, reflecting the impact of Bank of England QE and no near term prospect of rising interest rates but, at the longer end, yields reached as high as 4%.
Aug 2014	The curve is rising at the shorter end, reflecting imminent expectations of rate hikes from the Bank of England. Longer term rates are lower than they were in January 2012, as investors believe that long term "normal" growth rates will be lower than experienced in the past. Longer term rates are also being influenced to some extent by solvency-related institutional flows.

Sterling corporate bonds

As mentioned above, the sterling corporate bond market was sparked into life following changes to corporation tax introduced in the 1997 Budget, which increased the relative attractiveness of corporate bonds as a funding vehicle for corporates.



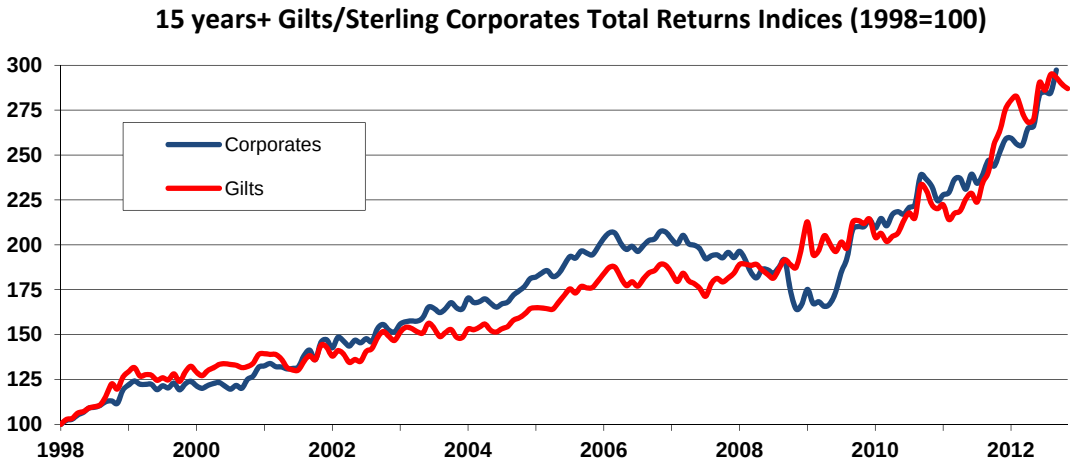
Growth in the market was further fuelled in the coming years by the increased demand from long term investment institutions, particularly defined benefit pension schemes and life office with profit funds for debt securities to better match their liabilities (which, in turn, led to a substantial rotation out of equities into corporate bonds over a period of several years).



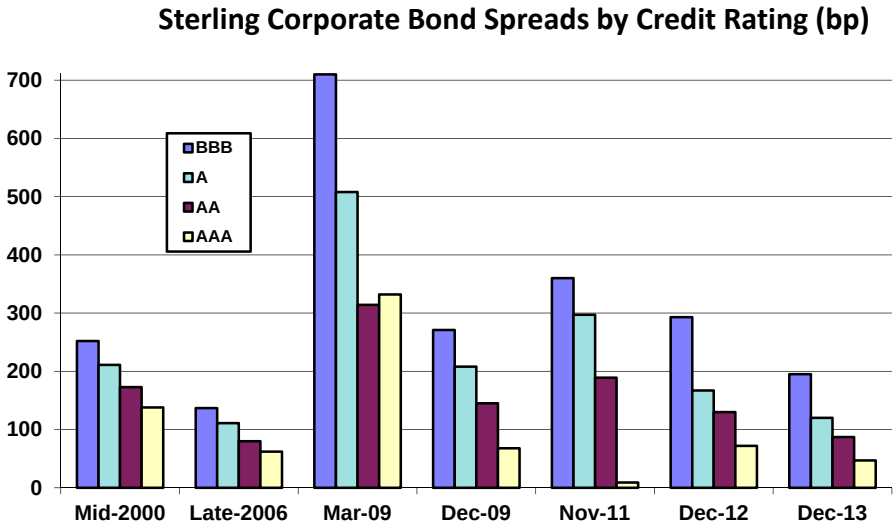
There are many ways of slicing corporate bond data: for example by term to maturity, by credit rating, and by sub-sector (type of issuer, whether collateralised etc). When it comes to comparison of investment returns, for ease of comparison with the gilt data covered earlier, we will focus on long dated (15 year+) corporate bonds, as illustrated by the chart above, which plots calendar year total return on sterling corporate bonds from 1998 onwards.

Returns were negative in 5 of the 16 years covered, and ranged from being as high as 22.9% in 1998 to as low as -5.1% in 2008. The cumulative return over the period illustrated was 6.9% per annum compound.

The next chart compares the total return on long corporate bonds with long gilts. For some years during the early/mid 2000s, long corporate bonds were delivering higher returns than their gilt equivalents, but the global financial crisis led to a reversal of fortune in 2008, as investors sought safety and liquidity and shunned risk, but that proved to be a good time to embrace credit risk, as evidenced by the subsequent recovery in performance from 2009.



Changes in investor appetite for risk and the willingness to take up the opportunity for extra yield over and above that available from gilts (albeit with attendant credit and liquidity risk) are illustrated by the chart below.



Spreads on sterling corporate bonds (all durations) had fallen appreciably between mid 2000 and late 2006, only to explode outwards by March 2009 (contributing to falls in corporate bond prices) as fear gripped markets and investors sought safety but, helped by government and central bank rescues and monetary stimulus programmes in the US, and similar activity in the UK, fear dissipated quite quickly leading to a contraction in spreads.

Corporate bond liquidity risk

One of the ways in which sterling corporate bonds differ from gilts is liquidity risk.

Whereas gilt issues are big and liquid and supported by substantial futures markets, corporate bonds are much smaller in size and are often tightly held and infrequently traded, thereby creating the risk that, if many holders or a corporate bond want to sell at once, they may not find buyers or, if left still holding their bonds, may not have reliable price information.

As at August 2014, UK gilts had a base market value of £1,142bn spread among 39 issues, making for an average of just under £30bn per issue.

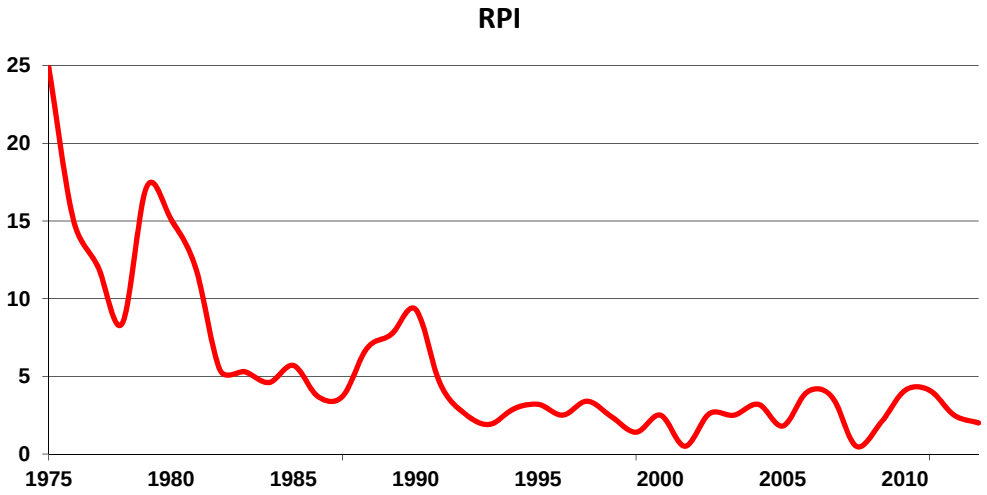
In contrast, the iBoxx sterling corporate bond sub-sector comprised 728 issues with a base market value of around £350bn, making for an average of less than £500m per bond.

The question of liquidity and price discovery is not a theoretical one. In the midst of the recent global financial crisis, there were many instances of financial institutions not being able to find a buyer or put a reliable market price on securities they owned.

Ironically, perhaps, the post-crisis actions of politicians and central bankers seeking to ensure that that such a debacle never happens again are serving to reduce liquidity and price visibility in the corporate bond market, as a result of their efforts to de-risk banks and broker declarers and impose more stringent capital standards, the result of which is that many market intermediaries have been withdrawing from market making and proprietary trading, thereby reducing liquidity and hampering price discovery.

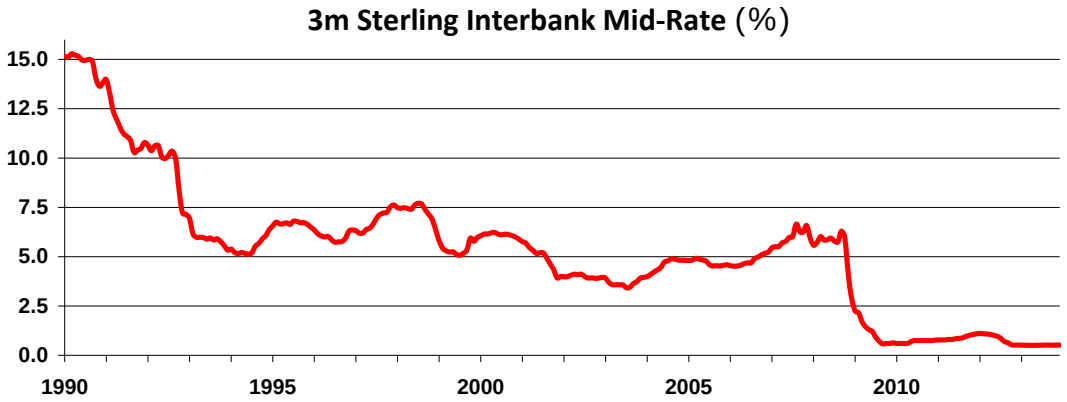
The market response to reduced liquidity and greater price uncertainty should be for corporate spreads to widen (notwithstanding the current global hunt for yield) at the same time as making it harder for bond fund managers to actively trade in and out of positions and adjust their portfolios.

No more bull?

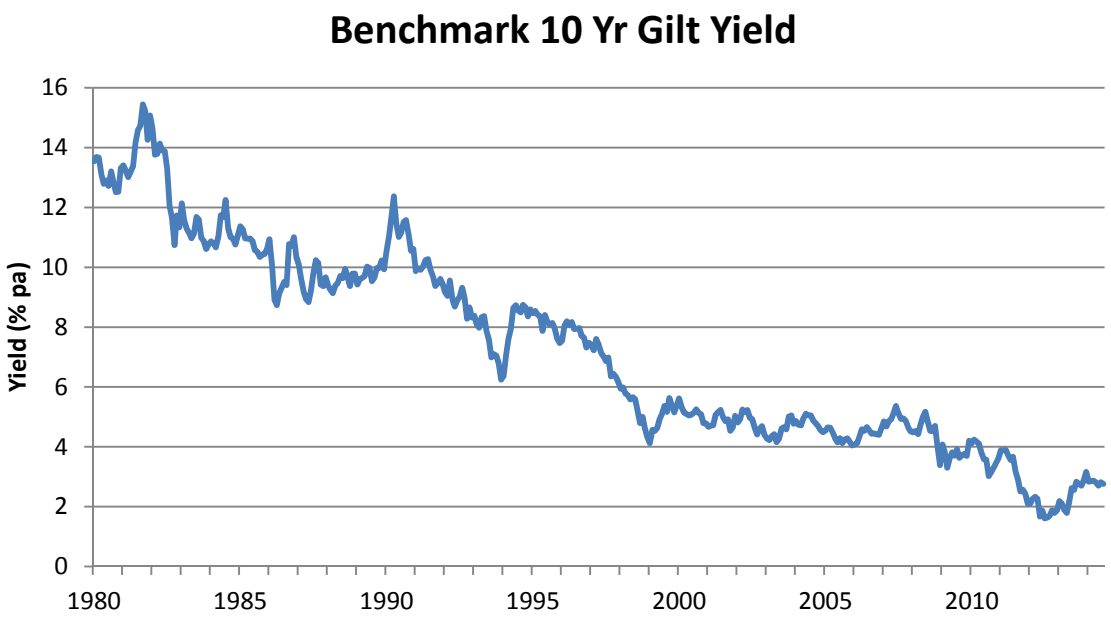


For one reason or another, but primarily the huge decline in actual and prospective inflation that has taken place over the past few decades, there has been a lengthy bull market in bonds as yields have broadly trended lower following reduced cost of living pressures but, inevitably, this cannot go much further.

The sustained fall in inflation led to a sustained reduction in money market interest rates.



Longer term rates fell too, as exemplified by the benchmark 10 year gilt illustrated in the chart immediately below.



Despite the likelihood of imminent rate hikes in the UK and the US, short term rates either side of the pond remain close to zero and, at the time of writing, 10 year yields were sub 2.5%. On the continent, where deflation is looming larger, the yield on German 10 year bonds fell below 1% for the first time ever in August 2014, during which month the yield on 2 year German paper (the "Schatz") traded in negative territory.

With yields this low, it is clear that we are quite simply running out of road for further yield depression and concomitant capital appreciation especially given that, in the UK and the US, central bank quantitative easing is ending and both the Bank of England and the Fed anticipate that rates will rise, albeit it (so they hope) gently and gradually.

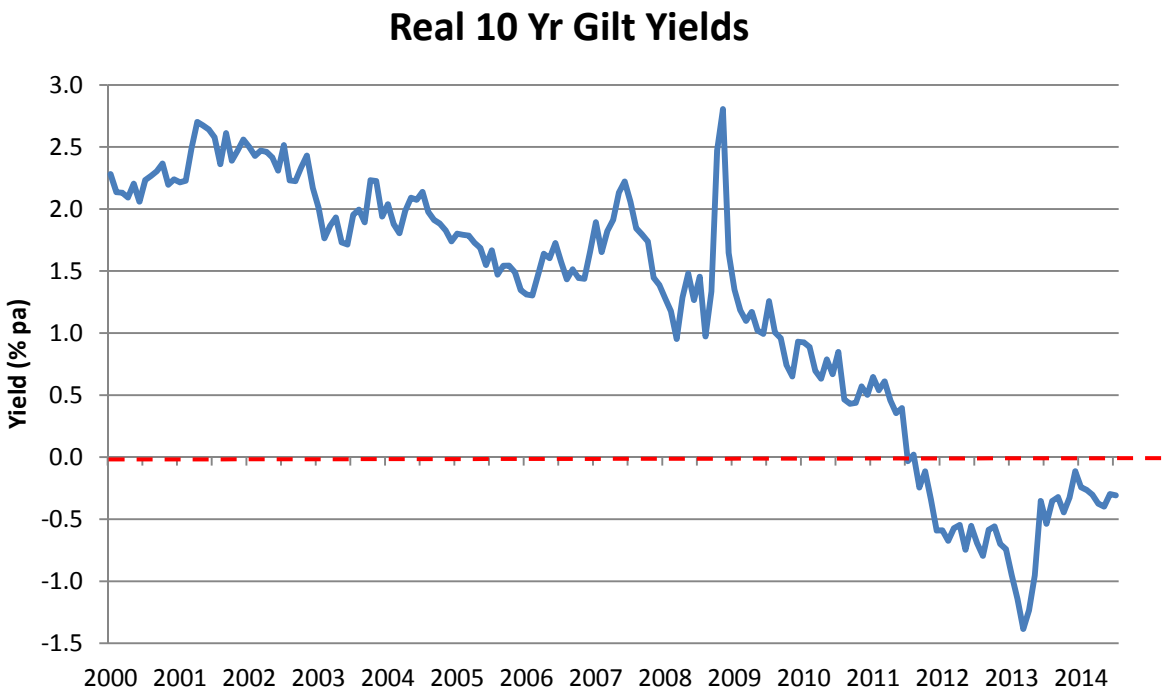
Real return on UK equities, gilts & cash				
Asset class	*Real return (% p.a.) over period to end 2013:*			
	10 yrs	*20 yrs*	*50 yrs*	*114 yrs*
UK equities	5.0	4.1	5.5	5.1
Gilts	2.5	3.5	2.5	1.2
Cash	-0.5	1.3	1.5	0.8

Advisers should bear this scenario in mind when considering historic stand-alone and relative bond performance. The Barclays data showed that the gap between historic real returns on UK equities and gilts was narrower over the past 10 and 20 years compared to the longer term, but this trend was attributable to some extent to the bond bull market that mathematically is not capable of progressing much further.

All things considered, it is entirely possible that the gap between real returns on equities and gilts will widen compared to recent experience in favour of equities going forward.

The end of the bond bull market would, of course, lead to higher yields, which may be positive for income-seeking investors, albeit that the prospects for capital gains on gilts and other bonds might be somewhat less than has been the case during the past 20 years or so.

The chart below shows the progression in real 10 year gilts yields, which were as high as +2.8% in 2008, but have slumped into and have been languishing in negative territory since September 2011.



Conventional gilts v inflation

According to Dimson et al, over the first 80 years of the 1900s, the return on gilts lagged inflation by 31%.

However, since 1980 the performance of conventional gilts galloped ahead, delivering real returns since that time of approximately 8% per annum compound. The chances of this extraordinary performance continuing are between slim and none.

Index-linked bonds

As at mid 2014, there were £335bn nominal of index-linked gilts in issue, and these had a market value of just over £400bn. In addition, there was a further £35bn of non-government index-linked bonds issued by organisations (mostly utility and infrastructure providers such as Thames Water, National Rail Infrastructure and National Grid) that have an inflation-related component to their operational cashflows.

Demand

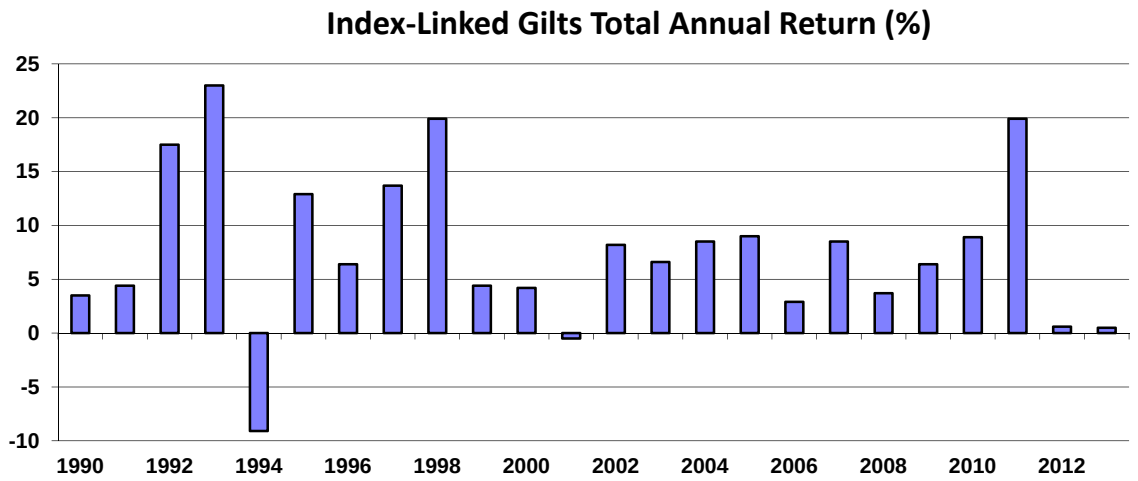
As we observed above in the section comparing level annuities to index-linked annuities, the supply of index-linked annuities is nowhere near big enough to meet the demand, especially from final salary pension schemes.

According to the Pension Protection Fund, as at March 2013, private sector final salary schemes had total liabilities of over £1,300bn (rising to more than £1,800bn on a full buy-out basis), of which more than half were index-linked.

This huge imbalance between supply and demand has exerted considerable downward pressure on index-linked gilt real yields.

It is worth noting that, driven by demand from pension schemes, the structure of the index-linked gilt market is such that it is heavily weighted towards long dated issues, such that the average maturity of an index-linked gilt as at mid 2014 was 21 years (compared to 13 years for a conventional gilt).

Performance



Over the 24 years from 1990 to 2013 inclusive, index-linked gilts generated a return of 7.4% per annum compound, with positive outcomes in each year bar 1994 and 2001.

Watch out!

Derivatives, financial engineering & dodgy ratings

There has been and continues to be a considerable amount of bond-based derivative activity. Earlier in this document, we listed some of the derivatives that life offices use in their bond portfolios, including interest rate swaps, inflation swaps, swaptions, spreadlocks and credit default swaps.

Whereas some bond investors pay premiums and buy derivatives to protect their portfolios, some bond funds are active in accepting premiums (which increase their income) to insure others against bond risks.

In the run up to the recent financial crisis, there was a vast amount of bond-based financial engineering, including collateralised debt obligations ("CDOs") and even CDOs of CDOs, as well as wild and wacky "synthetic" structures, some of which were facilitated by "credit enhancement" from specialist firms such as Ambac and MBIA that provided guarantees that somehow transformed fixed interest base metal into gold enabling issuers to go to market with AAA ratings.

The irony is that, when the market blew up, Ambac ended up defaulting on its own debt in November 2010, and filed for chapter 11 bankruptcy as a result. In similar vein, MBIA's own credit rating plunged from AAA in June 2008 to B3 (judged by Moody's to be sub-prime, "speculative" and a "high credit risk"), which begs the question as to how ratings agencies such as Moody's and Standard & Poors contrived to bestow and affirm AAA ratings on Ambac and MBIA just weeks before those bond insurers fell over.

AIG was another example of a bond insurance provider that had its come-uppance. Having gotten collective writer's cramp from insuring high quantities of banks' sub-prime securities holdings in the early to mid 2000s, raking in premiums as they did so, the group was brought to its knees and required a US government bail-out when those bets turned sour in the financial crisis that followed.

Despite these recent examples of credit insurance gone wrong, the world's largest fixed income manager, PIMCO is currently active in selling volatility (i.e. providing investors with insurance against volatility) against its flagship PIMCO Total Return fund, in the belief that the premiums it receives more than compensate for the risks it takes. If bond market volatility remains low and interest rates, PIMCO will be in the money. If not…

To return to the topic of ratings agencies, we would urge advisers to exercise extreme caution and to be wary of placing too much reliance on their ratings. Closer to home, for example, Equitable Life, which closed to new business in 2000 and was unable to meet its liabilities, had continued to be rated AA ("very strong capacity to meet financial commitments") by Standard & Poors as recently as 1999.

Bond funds

Bonds are often referred to as "safe or "boring". They are anything but! There is huge diversity in the bond universe (we have only scratched the surface in this commentary) and manifold risks attach to bond funds.

Judging by the storms surrounding certain funds provided in the mid 2000s by ALICO and Standard Life and which were invested in short term corporate paper but apparently marketed by some advisers as being equivalent to deposit funds, not all intermediaries have habitually "gone the extra mile" to undertake their own due diligence on what is in bond funds, how they are managed and the risks that they bear.

When it comes to retirement planning, remember that bonds are not a one-way street. Even during the bond bull market of the past couple of decades, gilts and corporate bonds have demonstrated a capacity to produce negative returns (5 times in the past 20 years in the case of long gilts). Then there is the question as to how gilts and corporate bonds will behave following the end of quantitative easing, and the ensuing increases in interest rates and reduction in central bank balance sheets.

Finally, please remember that investing in a bond (where, if held to maturity, the investor can ignore market fluctuations and changes in duration) is not the same as investing in a bond fund (where managers are daily grappling with duration and convexity, reinvestment risks, and maintaining mandate consistency).

Diversification

Poached or fried?

"Don't put all your eggs in one basket" cautions the cliché. On this basis, asset diversification is held out as reducing risk, but is this borne out by experience.

Taking the past 50 years (1964 to 2013 inclusive) and comparing the total return (including dividends) on the FTSE All Share Index against the FTSE Over 15 Year Gilt Index using calendar year time performance, we find the following:

- *Equities produced negative returns in 12 of the 50 years*
- *Gilts produced negative returns in 11 of the 50 years*
- *In 6 of the 50 years, equities and gilts both produced negative returns*

Accordingly we can see that, on a calendar year basis, gilts disappoint almost as frequently as equities and, from time to time, both deliver losing results at the same time.

Correlation

To bring more science to the process, we need to consider the extent to which equity and bond returns are correlated.

Correlation scores range from +1 to -1.

A correlation of +1 means that one investment would always move at exactly the same pace and in the same direction as another, as if the two were shackled together.

A correlation of -1 means that one investment would always move at exactly the same pace but in the opposite direction as another such that, if investment "A" generated a return of +7% in a particular year, investment "B" would generate a return of -7%.

In between these extremes, the nearer the correlation score to +1, the more closely the return from one investment tends to mimic another; while the nearer the correlation score to -1, the more the return from one investment tends to move in a diametrically opposed direction to another. A portfolio split 50:50 between two assets having a correlation of -1 would return 0.0% per annum, as any positive performance by one asset class would be matched and cancelled out by exactly equivalent negative performance of the other asset class.

Comparing the total return on UK equities to long gilts over the past 50 years in annual time steps, the correlation is +0.52%. Such a score says that there is a moderately strong correlation between the performance of equities and gilts, which means that combining these asset classes has provided some diversification but, generally, they tend to move in the same direction albeit at the same speed.

We also looked at long term equity/gilt correlations, but ignoring the 6 years from 2008 to 2013, where we have had Bank of England intervention which has had the specific purpose of distorting interest rates and the valuation of gilts, with knock-on effects for other asset prices. Taking the 44 years from 1963 to 2007, the correlation between equities and long gilts was 0.60%, which means that the performance of the two asset classes was fairly highly correlated, indicating only modest diversification attributes from holding the two together.

Correlations between UK equities & long gilts	
Period to end 2013	*Correlation*
10 yrs	-0.61
20 yrs	-0.06
30 yrs	0.10
40 yrs	0.53
50 yrs	0.52

The table immediately above shows equity/gilt correlations for various periods to end 2013. Picking up on what we observed above, there is a striking dissimilarity between recent correlation and the longer term experience. The quite strong inverse relationship between equities and gilts in recent years can be attributed to the financial crisis and its aftermath, as central banks engaged in unprecedented money printing (QE) with the express purpose of inflating asset prices, engendering over a number of years a distinct risk-on/risk-off market dynamic in the UK and the US.

The next table compares correlations over longer and shorter periods for a wider range of asset classes (this time using 40 years for the "longer" period on account of non-availability of data for certain asset classes before that time).

Correlations of various asset classes over 40 & 10 years to end 2013		
Asset classes	*Correlation over:*	
	40 Yrs	*10 yrs*
UK equities/Overseas equities	0.59	0.91
UK equities/Gilts	0.53	-0.61
UK equities/Property	0.36	0.73
UK equities/Cash	0.42	-0.31
Overseas equities/Gilts	0.19	-0.60
Overseas equities/Property	0.19	0.61
Overseas equities/Cash	0.07	-0.27
Gilts/Property	0.21	-0.08
Gilts/Cash	0.18	0.07
Property/Cash	0.03	-0.15

Again it can be seen that there are noteworthy differences between many correlation pairs when comparing the longer term to the shorter term.

Shifting sands

Advisers need to bear in mind the potential for correlations to change from time to time when considering asset allocation strategies and the merits of strategies such as auto-rebalancing and volatility-targeted funds, which we will look at in more detail in the section that now follows.

SECTION 10

RETIREMENT STRATGIES

"You've got to know when to hold 'em
Know when to fold 'em
Know when to walk away
Know when to run
You never count your money
When you're sittin' at the table
There'll be time enough for countin'
When the dealin's done"

Kenny Rogers

Lifestyling

Widely used

Lifestyling is now widely used as a risk reduction mechanism for pension plan holders nearing retirement, the idea being to reduce the impact of any sudden fall in equities, and to hedge against changes in annuity values.

Gluten-free investing?

Questions

The question is whether this approach (which, in practice, takes many shapes) is:

a) appropriate under a new regime where many people are not expected to buy and annuity;

b) effective in hedging annuity rate risk, in any event; and

c) regardless of whether or not an annuity is purchased, capable of reducing the volatility of pension pot outcomes at a given age.

Challenges

The widespread adoption of lifestyling for lifestyling in recent years puts one in mind of the current fad for gluten-free produce, which is increasingly consumed by people for whom such foodstuffs produce little or no benefit and in some cases, could have adverse side effects.

The following observations about lifestyling applied even before the 2014 Budget changes:

- If you believe in equities as the best long term investment, why are you bailing out of them? A 55 year old female might expect to live another 30 years on average, why should she start getting rid of her growth assets with three decades or more left to live?

- Lifestyling strategies typically involve transitioning to fixed interest funds ahead of annuity purchase, but why? There is a world of difference between a fixed interest fund and an annuity, so why do you transition to one if you will end up with the other? As we demonstrate below, investment in long gilts has not been a close hedge for annuity rate movements.

- Bonds are far from being risk-less. In the period from 1900 to 2013, long gilts have produced negative calendar year nominal returns on 33 occasions.

- The probability of equities outperforming bonds, and the relative risk attaching to equities compared to bonds, reduce the longer equities are held, so why go against this by making an early exit from shares?

- Lifestyling is promoted on the grounds that it can smooth the investment returns of investors. However, as we illustrate below, automated “set it and forget it” lifestyling introduces a new set of variables into the equation, meaning that it is essential that on-going governance is applied to the use of such techniques.

Current bond market conditions

These observations hold true whatever the market level at any given moment in time. At the time of writing (September 2014), we should add another market-based observation. We have had a three decade bull market in bonds.

Across the curve, yields are at very low nominal and real levels, meaning that we are running out of road as far as any further capital appreciation is concerned.

Indeed, with the Bank of England and the Fed both stepping back from quantitative easing and with rate hikes on the cards, the risks seem decidedly skewed to the downside, and it is hard to make the case for sustained further positive returns from bonds (especially longer dated ones with higher "duration"), and not too difficult to envisage a lengthy period of negative returns.

All the right notes, but not necessarily in the right order

To make our point about randomness of returns under lifestyling, we take the case of Fred. He has been saving into his pension for the past 20 years or so and, now aged 55, he has built up a pot worth £50,000, which is entirely invested in equities.

Fred is going to put £2,000 a year into his plan over each of the next 10 years, during which time his fund will be lifestyled such that the asset allocation gradually changes each year so that in the first year of lifestyling it will be 90% in equities and 10% in bonds, changing in year 2 to 80% in equities and 20% in bonds and so forth until it is 100% in bonds at year 10.

Over the 10 year lifestyling period, his equity fund will produce a return of 7% per annum compound, while the bond fund will grow at 3% per annum compound.

Now let's make it more interesting. While the bond fund kicks in growth of 3% like clockwork every single year, the equity fund performance averages 7% per annum compound over 10 years, but the (time-weighted) returns will vary from year within that period.

What we now do is to take those variable equity returns (that amount to 7% per annum over 10 years) and assume that their incidence differs under two scenarios.

In scenario 1, the highest calendar year equity returns occur earliest and the lowest ones latest. In scenario 2, the incidence of the equity returns in reversed.

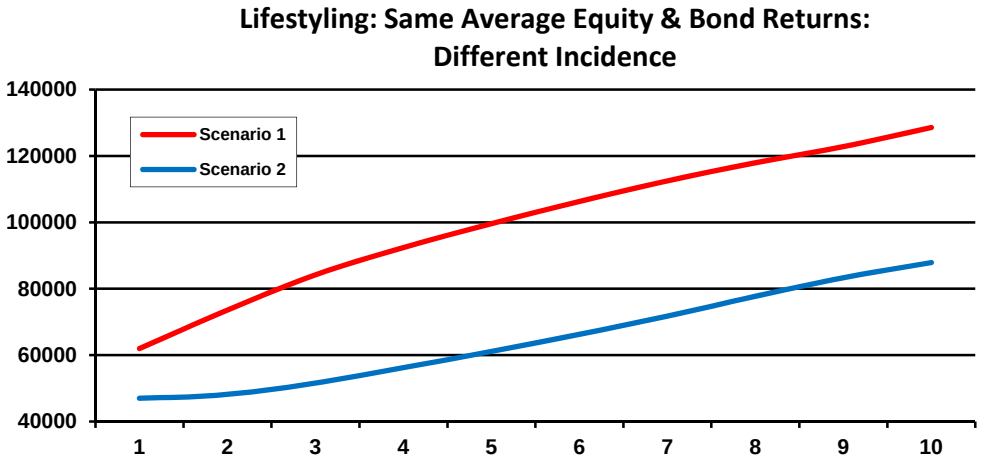
Lifestyling scenario 1:
calendar year incidence of equity & bond returns

Asset class/Year	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*Ave*
Equities	21.0	18.0	15.0	10.0	8.0	7.0	6.0	3.0	-3.0	-11.0	7.0
Bonds	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Lifestyling scenario 2:
calendar year incidence of equity & bond returns

Asset class/Year	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*Ave*
Equities	-11.0	-3.0	3.0	6.0	7.0	8.0	10.0	15.0	18.0	21.0	7.0
Bonds	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

It can be seen from the chart below that, comparing scenario 1 and scenario 2, both of which have equities and bonds growing at 7% and 3% per annum respectively, there is a 46% difference in fund values at the end of the process: £128,550 under scenario 1 compared to £87,882 under scenario 2.



Accordingly, even given no change in the average returns on equities and on bonds, there can be massive differences in the fund amounts arising at the end of a lifestyling process.

Eric & André

Lifestyling can be a case, as Eric Morecambe once explained to the distinguished conductor André Previn, of "all the right notes, but not necessarily in the right order".

This is also known as the "sequence effect" (where earlier things affect later things) which, as well as being highly influential in impacting lifestyling outcomes (where funds are being withdrawn from equity-type investments and re-allocated to bond and/or cash-type assets), is capable when considered in the context of drawdown of having a massive influence on the sustainability of income in retirement.

Back-test

Based on FTSE All Share and FTSE 15 year+ gilt total returns, and applying the "Fred" scenario (10 years to go to retirement with £50,000 saved so far and on-going contributions of £2,000 per annum), we compared lifestyled with non-lifestyled (stay put in equities) strategies over 20 successive 10 year periods starting in 1985.

Half the time, not lifestyling produced a higher return than lifestyling and vice versa. On average, there was practically no difference to final funds values that resulted from lifestyling as compared to those where no lifestyling took place (the average resulting fund value was just over £168,000 for both camps).

Do long gilts hedge annuity rate movements?

Finally, and most fundamentally with regard to our examination of lifestyling, we decided to test whether investment in a long gilt fund was a good hedge against movements in annuity rates.

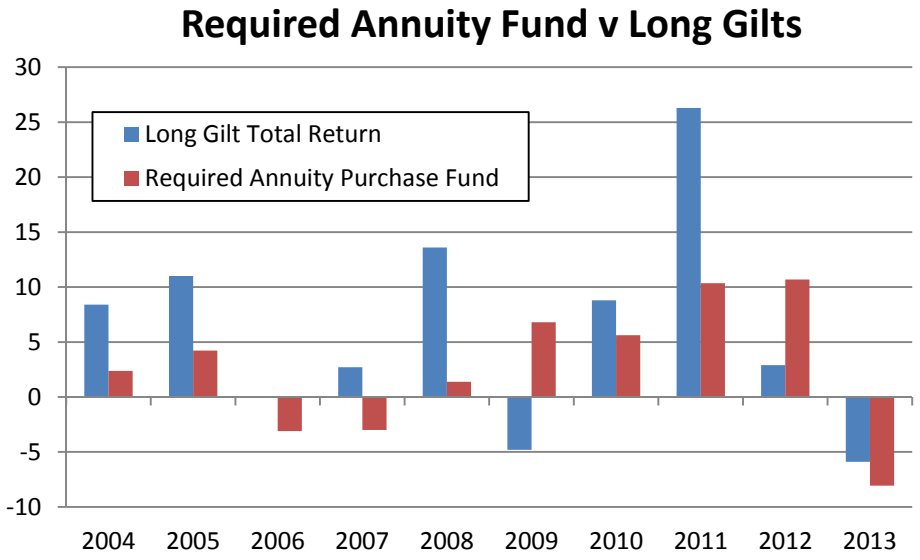
To be clear, the hedge test is not about seeing whether annuity rates and long gilt yields tend to broadly move in the same direction. (They do, and are quite highly correlated.)

Instead, we decided to investigate the efficacy of holding long gilts as a hedge (quasi immunisation strategy) against movements in annuity purchasing power, in particular to provide compensation for downward moves in annuity rates (which would require increasing capital sums to secure the same level of annuity income) and vice versa.

By way of a simple example, let us assume that a client wants an income of £5,000. Annuity rates are 5%, and so he will need to invest £100,000 to achieve his goal. If, suddenly, the annuity rate fell to 4%, he then would need £125,000 to generate the same desired £5,000 income.

If the client's £100,000 pending annuity purchase was held in long gilt fund priced at, say 200p, that fund would need to increase in value by 25% (to 250p) for it to then be worth the £125,000 needed to fund an annuity to secure an income of £5,000.

For our test we first took sample consistent annuity rates in January of each year for the past 10 years and calculated by how much the pension pot ("required annuity purchase fund") would need to have increased/or decreased from one year to another to be able to buy the same cash amount of annuity income at each point in time. We then compared the movements in the required annuity purchase fund with the move in long gilts (total return).



While the two moved in a broadly similar pattern, the relationship was not particularly strong: the correlation between the required "annuity fund" movement (standard deviation of 5.8) sufficient to hedge out the impact of changes in annuity rates on annuity income and what was delivered by long gilts (standard deviation of 9.1) was 0.5, which is hardly a close match, and could not be said to be a good hedge notwithstanding that, taken over the 10 years under review, the total return on long gilts exceeded the overall change in required annuity fund.

What is more, in a lifestyling context, any correlation (not strong to begin with) is further diluted by the fact that, typically, rotation out of equities and into long gilts only occurs gradually.

Bond risks

When considering this past data used in the annuity hedge test, it is worth remembering that the fixed income returns were generated during an extraordinary bond bull market.

During the past few decades there has been a huge decline in interest rates arising from a massive downshift in UK inflation during the 1980s and 1990s, given further impetus by the transfer in 1998 of rate-setting power to a Bank of England mandated to achieve a 2% CPI inflation target, on top of which recent years have witnessed additional downward pressure on bond yields as a result of quantitative easing as the UK central bank has bought up almost £375bn of gilts.

Warren Buffett recently asserted that "bonds are terrible investments now…[they] are priced artificially…people could lose a lot of money if they are in long term bonds".

During September 2014, the benchmark 10 year gilt was yielding in the region of 2.4%, way below its historic average of 4.5%. Reversion to the mean could see long bond prices fall by as much as 15% or more.

Take another look

What is clear from our "Fred" scenarios and the back-testing is that systematic lifestyling does not necessarily reduce the volatility of outcomes at retirement.

Even when investment returns average out according to plan over, say, a 10 year glidepath to retirement, the volatility and incidence of returns (even when it is the case of the same returns but occurring in different years) can make for huge variances in "final" pension pot size.

In addition, and fundamentally, the correlation between the returns on long gilts and the required annuity purchase fund for a given level of annuity income has been modest, and certainly not enough for long gilts to be considered a "good hedge".

The Budget changes means that advisers, clients and (for group arrangements) employers may need to consider whether existing strategies remain appropriate, especially given current bond market conditions.

Target Date Funds ("TDFs")

Over there & now over here

Target date funds ("TDFs") are popular in the US, where more than $600bn was invested in such vehicles as at end 2013, mostly within 401(k) plans and other retirement funding arrangements.

Currently, TDFs are much less in evidence in the UK, where lifestyling predominates. However, the recently launched National Employers Savings Trust ("NEST") has chosen target date funds (a suite of 50 funds) to support its pre-retirement default strategy, in preference to lifestyling.

The Budget decumulation changes that are resulting in many fewer pension savers buying annuities may lead to an increase in the use of TDFs (which typically maintain some exposure to equity-type assets through to and beyond the target date) in place of lifestyling.

Contrast & compare

Automated v active

UK lifestyling arrangements mostly (but not always) involve predetermined mechanistic switches (usually annually) from one or more funds to another with a view to systematically reducing exposure to risk assets such that savers are "cashed out" of equities by their retirement date.

The target date approach involves investment in a multi-asset fund-of-funds (with underlying funds typically all managed by the same group) that is actively managed around a risk-reduction glidepath benchmark from which the managers (who have full fiduciary discretion for the investors in that fund) may deviate at their discretion to take best advantage of market conditions from time to time en route to a final asset allocation target by a certain calendar date.

In considering the comparison between mechanistic lifestyling and active target date funds please note, however, that there are some lifestyle providers that do embed a degree of active management governance in their offerings.

Additionally with regard to asset allocation, target date funds are able to add or remove exposures to specific asset classes quickly and easily, which may not always be easily implemented within some lifestyle programmes.

Cashing out v continuing on

In the UK, lifestyling has been used as a precursor to annuitisation. In the US where there has been no compulsory annuitisation, investors usually remain invested in their TDFs after the target retirement date has passed.

Asset allocation

At all points in time, US target date funds on average tend to display higher exposure to equities that UK lifestyle arrangements.

For younger investors, US target date funds not uncommonly invest 80% to 90% in equities, while equity exposures for funds where the target range has passed range from a little under 20% to as high as 60% or more, with the average weighting being in the region of 30% to 35%.

Glidepaths

Glidepath trajectories can vary considerably from one fund to another, with some being quite aggressive, while others transition in a more gentle fashion.

"To" & "Through" funds

Further with regard to asset allocation and glidepaths, some US TDFs are categorised as "to" funds, where the exposure to equities is decreased substantially and cash and bond holdings such that the asset allocation is at is most conservative at the target retirement date.

Other propositions are categorised as "through" funds and maintain a relatively high exposure to risk assets (beyond the target retirement date).

As mentioned above, TDFs in the US tend not to cash out of equities entirely such that, immediately before the target date is hit, the equity exposure could be as high as 40%, 50% or even more in the case of "through" funds and, in the case of "to" funds, a 25% at-retirement equity weighting is quite common.

Risk modification via date tweaking

In the US, some savers modify the amount of risk there are taking en route to their retirement by choosing a target date fund with an earlier or later terminal year.

For example, someone planning to retire in 2025, might invested in a 2029 target date fund if they wanted to be in a fund that was more exposed to risk assets at their retirement date than a 2025 fund would be in 2025.

What is more, a target date investor does not need to stick to a particular fund and, for example, could switch from a 2031 fund to a 2033 fund, so as to better match changing retirement date expectations and/or to modify their exposure to risk assets by switching to a different point in the glidepath.

Drawdown & Pound Cost Ravaging

Paths of peril

In the section above on lifestyling, we showed how the sequence of investment returns can have a major influence on fund size outcomes.

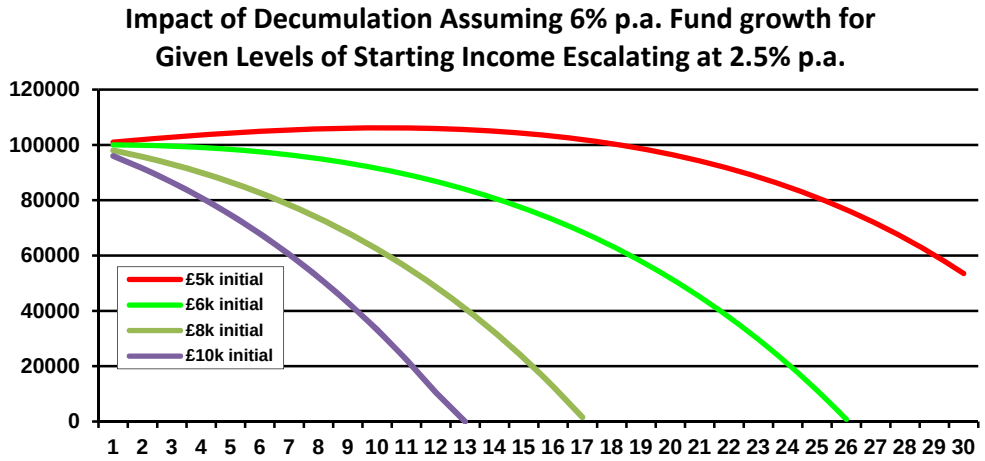
If anything, sequencing or "path dependency" risks are even greater in drawdown, where on-going vigilance is essential and, in respect of which, clients and advisers should not assume that accumulation fund strategies will be appropriate for decumulation, so do not "leave it and grieve it"!

Dream a little dream

The use of deterministic investment assumptions across the industry can lead advisers and clients into a false sense of security when it comes to setting decumulation strategies.

A client has £100,000. Let us assume that the underlying investment fund grows at a steady net 6% per annum year in and year out. The client wants to take regular withdrawals, rising at 2.5% per annum to help offset the impact of inflation.

On that basis, the chart below shows the progression in fund values for four different levels of starting income, ranging from £5,000 to £10,000. It can be seen that, for a starting level of income of £5,000, there is still plenty left in the pot (more than £50,000) even after 30 years. Choosing a higher starting income of £6,000 would exhaust the fund after 26 years, while a starting income of £8,000 sees the client running out of money after 17 years, and a £10,000 starting income means that the fund will not last beyond 12 years or so.



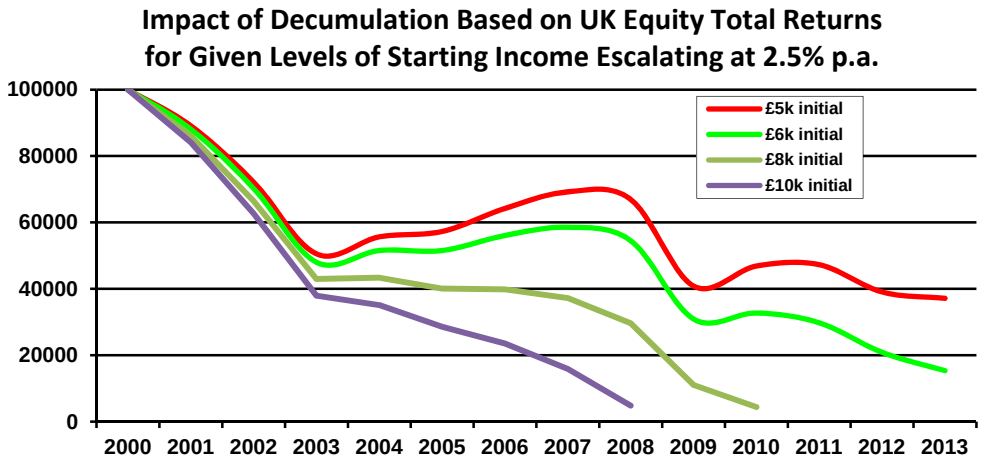
The next table below shows the change in time until the fund is exhausted, comparing 4% per annum compound fund growth rates with the 6% illustrated in the chart above.

Exhaustion of initial £100,000 fund assuming 6% & 4% growth rates		
Starting income	*6% p.a. growth*	*4% p.a. growth*
£5,000	35 yrs	24 yrs
£6,000	26 yrs	19 yrs
£8,000	17 yrs	14 yrs
£10,000	12 yrs	11 yrs

All gone Pete Tong

Markets don't move in straight lines. Advisers are taught at their grannies' knees that pound cost averaging is a good thing: making regular contributions to a saving plan means that, when fund prices dip, you get more units for your monthly contribution.

The opposite is true when decumulating. As many pension drawdown clients and investment bond policyholders taking regular withdrawals have found to their cost, decumulating during a market downshift can be a recipe for disaster.



The chart above is based on a £100,000 fund at outset (1 January 2000), and shows four different levels of starting income, each escalating at 2.5% per annum. The fund performance is that of the FTSE All Share index. It can be seen that even taking a seemingly cautious £5,000 initial income would have resulted in the pot halving in value by 2003, at which juncture it would have fallen by almost two-thirds if the initial income had been set at £10,000.

So if eating equities in decumulation is hazardous, how about some magic beans in the form of fixed interest? But wait a minute, if 5 year gilts are yielding 1% to maturity, 10 year gilt are yielding 2.5% and 15 year gilts are yielding 3%, how do you suppose those raw materials (which remember are volatile – gilts have been producing negative total returns once in every four years on average) will support an income requirement of 5%, 6% or more? And don't even think about what might happen to returns on bonds if (when) a 30 year bull market in fixed interest goes into reverse following the end of QE.

There is a huge challenge for advisers to structure and provide on-going management/advice around decumulation strategies that recognise that markets can and do go down as well as up and are aligned with the client's capacity for loss. (Note also that bonds have tended to fall fairly frequently and, further, that equities and bonds can both fall at the same time.)

The 4% rule (US)

In the US, where retirees have had much greater flexibility than hitherto has been the case in the UK with regard to accumulated pension assets (there is no compulsory annuitisation and no state-controlled drawdown maxima), various strategies have been deployed to reduce the risk of running out of money early. One of the most popular is the somewhat folksy "4% rule".

Under the 4% rule, retirees follow a strategy of limiting their withdrawals to no more than 4% of the residual fund (not untypically having a fairly high weighting in equities) in any one year. The idea being that, for a couple aged 65, this should mean that their retirement pot lasts at least until they reach age 90 (25 years of 4%).

A fundamental problem with this strategy, if undertaken on a "set it and forget it" basis is that, just like UK drawdown, it can be derailed if underlying investment returns are poor or, even if returns average out as positive and good over the medium to longer term or further, if low or negative returns are experienced early on, meaning that the sustainability and level of income can be dependent on the "sequence of returns".

Sequence of returns (Eric Morecambe effect)

In the section on drawdown, we discussed the impact of the order in which investment returns are experienced and how this can have a huge impact on the resulting at-retirement pot, even if the overall average investment return over the period under review is the same, which we tagged as "the Eric Morecambe effect" ("all the right notes, but not necessarily in the right order"), otherwise known as the impact of the sequence of investment returns.

In the example below, we took a set of investment returns that amount to 7% per annum compound over 10 years and assumed an initial investment of £100,000 and annual withdrawal of £7,000 taken at the end of each year. Firstly, we assumed that the 7% average return was achieved in each calendar year. We then ran a scenario with the highest returns in year 1 and the lowest in year 10 and, finally, then ran the numbers a third time, with the order of the investment returns reversed.

It can be seen that there are huge differences in underlying fund value (and, thereby, the on-going sustainability of the withdrawal amount) depending on the sequence of investment returns, with the "high returns first" scenario resulting in a residual fund value which for a period is more than 2.5x that of the "low returns first" scenario.

Sequence effect on residual fund:
returns of 7% p.a., withdrawing £7,000 p.a.

Year	*7% p.a. deterministic*		*7% p.a. high returns first*		*7% p.a. low returns first*	
	Return	*Residual fund*	*Return*	*Residual fund*	*Return*	*Residual fund*
0		£100,000		£100,000		£100,000
1	7%	£100,000	21%	£114,000	-11%	£82,000
2	7%	£100,000	18%	£127,520	-3%	£72,540
3	7%	£100,000	15%	£139,648	3%	£67,716
4	7%	£100,000	10%	£146,613	6%	£64,779
5	7%	£100,000	8%	£151,342	7%	£62,314
6	7%	£100,000	7%	£154,936	8%	£60,299
7	7%	£100,000	6%	£157,232	10%	£59,239
8	7%	£100,000	3%	£154,949	15%	£61,288
9	7%	£100,000	-3%	£143,300	18%	£65,249
10	7%	£100,000	-11%	£120,537	21%	£71,952

If, by contrast, the average investment returns of 7% per annum were delivered at that same rate in each year (which is what is implied when using deterministic forecasting), then the residual fund value remains a constant £100,000 at all times.

These examples serve to show why decumulation presents a very different set of risks from accumulation. If an investor was simply building up assets without any withdrawals, all three sequences of investment returns used in the table immediately above would produce identical returns by the end of year 10 (a fund of £196,715 in each case). The residual investment value is only impacted when investors make withdrawals from their portfolios.

The examples also highlight the hazards of using non-stochastic assumptions when planning and managing decumulation strategies and not taking into account a realistic range of upside and downside near term asset return outcomes.

Lessons

Deterministic assumptions engender a false sense of security. Use stochastic modelling to assess upside and downside risk and the probability of attaining the client's income and capital goals.

Automated "set it and forget it" drawdown structures that eat into capital can be highly risky given the inherent volatility of markets – bond funds and equities are both capable of bouncing around and producing negative returns from time to time.

The client's capacity for loss should be front and centre, and choppy markets demand extra vigilance, especially in the case of investors that cannot get by on just the "natural income" (dividends etc) that the underlying portfolio produces.

Either, do not eat your capital (see the next chapter on equity income investing), buy protection, and/or see whether you can reduce volatility without denting longer returns through asset allocation strategies.

Equity Income Investing

Inflation-beating long term outperformance

On pages 68 to 72, we commented on the poor value provided by index-linked annuities.

Over pages 79 to 83 we noted that, over the longer term, equities have proved capable of consistently delivering above-inflation returns (in excess of 5% per annum over and above the cost of living measured over the past 114 years) and, further, that a substantial component of equity returns has arisen from dividend income.

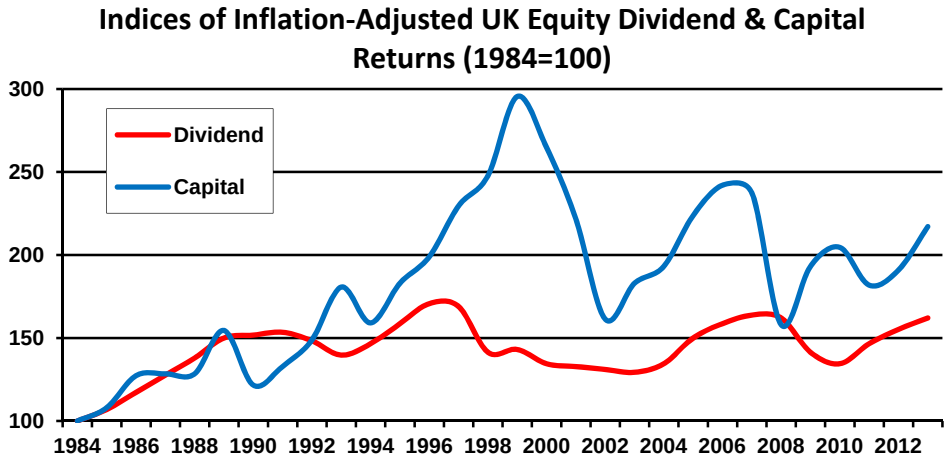
Of UK equities' 114 year 5.3% per annum inflation outperformance (as per Dimson et al), 0.7% was from real capital appreciation, while 4.6% was from dividends. In the case of US equities, real capital appreciation was 2.2%, while dividends contributed 4.2%.

Decomposition of real equity returns for selected "Anglo Saxon" economies (1900-2013)

Country	*Growth rate of real dividends (%)*	*Expansion in dividend yield (%)*	*Real appreciation of equities (%)*	*Annualised dividend yield (%)*	*Real total return on equities (%)*
Australia	1.13	-0.42	1.56	5.72	7.37
Canada	0.90	-0.43	1.34	4.35	5.75
UK	0.59	-0.10	0.69	4.61	5.33
US	1.63	-0.54	2.18	4.18	6.45

By way of explanation, in the table above "expansion of dividend yield" measures the extent to which dividend yields (but NOT necessarily the amount of the dividend) changes. A positive number (of which there are none in that column in the table above) would indicate that dividends yields (i.e. the amount of dividend relative to share price) increased, while a negative number shows that dividend yields decreased. Over the long term, negative expansion in dividend yields has typically been driven by rising equity prices rather falling dividend amounts, which has boosted equity market performance.

Fairly smooth ride



More recent real performance of UK equities, divided into their capital and dividend components is illustrated by the chart above. Over the 30 years under review, capital appreciation delivered inflation-

adjusted returns of 117% (equivalent to 2.6% per annum compound), while dividends grew by 62% (1.6% per annum compound) over and above inflation.

Note the relatively smooth progression of real dividend returns as compared to capital returns. As well as having the potential to provide protection against inflation, dividend streams tend to be less volatile than equity prices.

Actually, when it comes to investing via UK equity income funds, the dividend income experience in many cases has been smoother than illustrated by the chart above. This is because the chart data is based on a broad measure of UK equities, including stocks that do not pay dividends, whereas managers of funds with an equity income mandate are likely to substitute stocks that cut or cease to pay dividends in favour of others that do meet their yield criteria, thereby boosting income performance.

It is these characteristics that can make equity income investing an ideal solution for investors who want to remain invested in company shares over the longer term and, provided that they restrict their drawdown to dividends, ride out volatility in equity prices at the same time as having prospects for growth in income.

Further with regard to volatility, over the long term higher yielding equities have tended to be less vulnerable to market swings than lower yielding shares.

When it comes to long term performance, higher yielding equities have generated superior total returns (capital appreciation plus dividends combined) than lower yielding ones.

Head to head

Given current annuity rates and equity yields, the case for equity income investing to generate long term retirement income is overwhelming.

In the table below, we provide a deterministic comparison of prospective future real (inflation-adjusted) benefits an index-linked annuity with investment in UK equity income funds.

The index-linked annuity rate is based on competitive terms available as at September 2014 for £100,000 purchase price with a 50% spouse pension. The annuity income remains constant in real terms, and so is shown (assuming the purchaser remains alive) unchanged in the table.

Equity income v index-linked annuity: prospective inflation-adjusted returns compared

Income/capital	*Source*	*Inflation-adjusted value (£) after:*					
		Initial	*5 yrs*	*10 yrs*	*15 yrs*	*20 yrs*	*25 yrs*
Income	Equity income fund	4,000	4,330	4,688	5,075	5,495	5,948
	Annuity	2,950	2,950	2,950	2,950	2,950	2,950
Residual capital	Equity income fund	100,000	105,101	110,462	116,097	122,019	128,243
	Annuity	0	0	0	0	0	0

For the UK equity income fund, a starting yield of 4.0% has been assumed (in line with yields currently available on several such funds). Further, it has been projected that real capital appreciation and dividend growth on equities will continue at the rates of 2.6% and 1.6% per annum compound respectively, in line with the 30 year experience from 1984 to 2013. However, the actual real capital growth credited has been restricted to 1.0% to allow for charges, assumed to be taken from capital.

Not for everyone

Long term equity income investing has been a great retirement income solution, but it is not for everyone.

Although eating into your capital is like an apple grower chopping down trees in his orchard for winter firewood or an egg producer slaughtering chickens for the pot, many people will need to consume capital to help provide an adequate income. In the following chapters we will take a look at some risk reduction strategies for those decumulating their capital.

Bucketing

Simplicity

One approach to retirement drawdown risk mitigation for those (the majority) who cannot survive on dividend or interest income alone and may need to start biting into capital is to divide the retirement pot into two or more "buckets". This approach can be linked to withdrawal constraints such as the "4% rule" that we mentioned on page 108.

Bucket approaches can be mechanistic, where withdrawals are made from buckets in a strict pre-planned order.

Alternatively, bucket strategies can incorporate some discretionary response to market signals, but this route depends on the investors and his or her adviser spotting the market signal (such as a pre-set decline in equity values or a rise in volatility) in time, and the signal turning out to be an accurate augury of what eventuates.

Buffett's bucket

A simple version of this approach has been advocated by Warren Buffett for the provision of a pension for his widow.

Earlier in 2014 he explained that, "My advice to the trustee could not be more simple: put 10% of the cash in short term government bonds and 90% in a very low cost [Vanguard] S&P 500 index fund."

Buffett's approach is centred on relying on the S&P 500 fund for pension withdrawals, except when market values are low, during which times the short term government bonds are used to generate extra income, thereby minimising the depletion of equity capital from drawing down on such assets when prices are depressed ("pound cost ravaging") and giving time for the stock markets to bottom out and regain lost ground.

One after the other

Another approach is to have three buckets:

1. The first of these (say 10% to 15% of the portfolio to fund the first three or four years' living expenses) is invested in lower risk, liquid assets, such as money market funds and short dated government bonds.

2. The second bucket (perhaps 20% to 40% of the portfolio, to cover living expenses up from, say, year 5 to year 10 or a little later) might hold longer dated gilts, corporate bonds and higher dividend equities.

3. The third bucket (perhaps 50% up to 70% of the portfolio) might be invested completely in equities and other risk-type assets, and starts be drawn down once the first two buckets have successively been exhausted.

The idea here is that, by draining the buckets one after the other in strict order, the client starts by drawing down on the safest assets, avoiding the possibility of eating into equities (which have long

term, inflation-beating growth potential but are potentially volatile) early on. When that bucket is exhausted, the intermediate bucket is then gradually drained, and so on.

In theory, at least, this has the merit of giving the equity component a "head start" to sit undisturbed and achieve growth over the medium to longer term while avoiding long-lasting damages from drawing down on risk assets early on in the decumulation phase.

The main concern with this somewhat mechanistic approach is that there is in-built asset reallocation which, in the case of the example given above (which is typical of those popular in the US) means the risk profile of the retiree's assets is increasing over time, which may not be appropriate and runs contrary to the conventional wisdom that you should reduce exposure to risk as you get older.

Buckets & longevity insurance

In the US, some proponents of "longevity insurance" (i.e. later life deferred annuities, for example purchased at age 65 and which start paying from age 85, as described on pages 76 to 77) suggest that bucket strategies include a deferred annuity, used to mitigate longevity tail risk.

UK buckets?

Just as the Americans drive on the opposite side of the road, in the early days following the 2014 Budget decumulation changes, "reverse" bucket strategies are being suggested by some practitioners in the UK.

One such essentially involves two buckets: a mixed asset drawdown bucket designed to provide the bulk of non-state pension retirement income in the earlier years of retirement; and a deferred annuity purchased at or close to retirement that starts paying out at some point deep into retirement, say at age 85. Such a strategy would appear to combine the existing and well-known naked drawdown risks with a "pay now" longevity gamble. We discuss older age deferred annuities in more detail on pages 75 to 77.

A variation on this theme is to apply all the funds to drawdown to begin with and, in a manner similar to the situation before the 2014 Budget changes, then buy an annuity at older age. This risks the possibility of substantial or complete depletion of the drawdown fund, leaving little or nothing left for annuity purchase. Further, as discussed above, we think it likely that all later life immediate annuities will be individually underwritten, making for prospective selection risk and considerable uncertainty as to the terms to be offered when the time comes.

Riding Out Storms

Sit and wait?

For clients who have the financial flexibility to wait and choose when to start decumulating or, if already decumulating, suspend or reduce withdrawals, riding out market storms is a possibility.

If we look back over the past 30 years, there were 9 periods during which the total return on UK equities (FTSE All Share) was -10% or worse.

The table below shows how long it took for the market (FTSE All Share Index total return) to recover from such falls (from the monthly "swing high") to regain the previous high level.

UK equities (total returns):
major market downturns & time to recovery

Start of downturn	*Depth of fall*	*Duration from swing high to swing low*	*Duration from swing low to new high*
Oct 1987	34%	2 months	20 months
Jul 1990	15%	3 months	5 months
Jun 1992	16%	3 months	3 months
Feb 1994	14%	5 months	13 months
May 1998	18%	5 months	5 months
Sep 2000	42%	29 months	35 months
Nov 2007	43%	16 months	22 months
Jul 2011	15%	3 months	5 months
Mar 2012	10%	3 months	4 months

For the most part, the 10%+ declines mostly took place over the space of a few months and repaired themselves in fairly rapid order.

The exceptions were the two downturns that took place in the 2000s. In both cases, prices slid gradually (rather than crashing) over an extended period (29 months and 16 months respectively) before bottoming, and the ensuing recoveries to surpass the old highs were lengthy and also gradual.

1973 crash

The table and commentary above exclude mention of the biggest crash and rebound in recent times, which occurred in 1973-4, before the days of FTSE All Share total return calculations.

During this period the UK economy was thrown into turmoil as a result of a number of calamities, including the secondary banking crises and the Arab oil embargo. Between January 1973 and 6 January 1975, the then benchmark FT-30 index collapsed by 73%, before doubling from the low within 4 months (April 1974), but did not regain the high watermark level until September 1975.

Flexible, floating price portfolio protection option

The Budget decumulation reforms will give providers greater freedom with regard to product development. We could see new propositions that allow advisers/clients to turn on capital/income protection for limited periods to guard against adverse market movements, with the cost of the protection option in some cases varying from time to time in line with market conditions.

Auto Rebalancing

Selling winners

Auto-rebalancing essentially involves methodically selling relative winners and buying relative losers.

This is a contrarian strategy, and differs markedly from volatility targeting (described on pages 120 to 121), which could be described as a momentum strategy.

Not a risk-reduction strategy

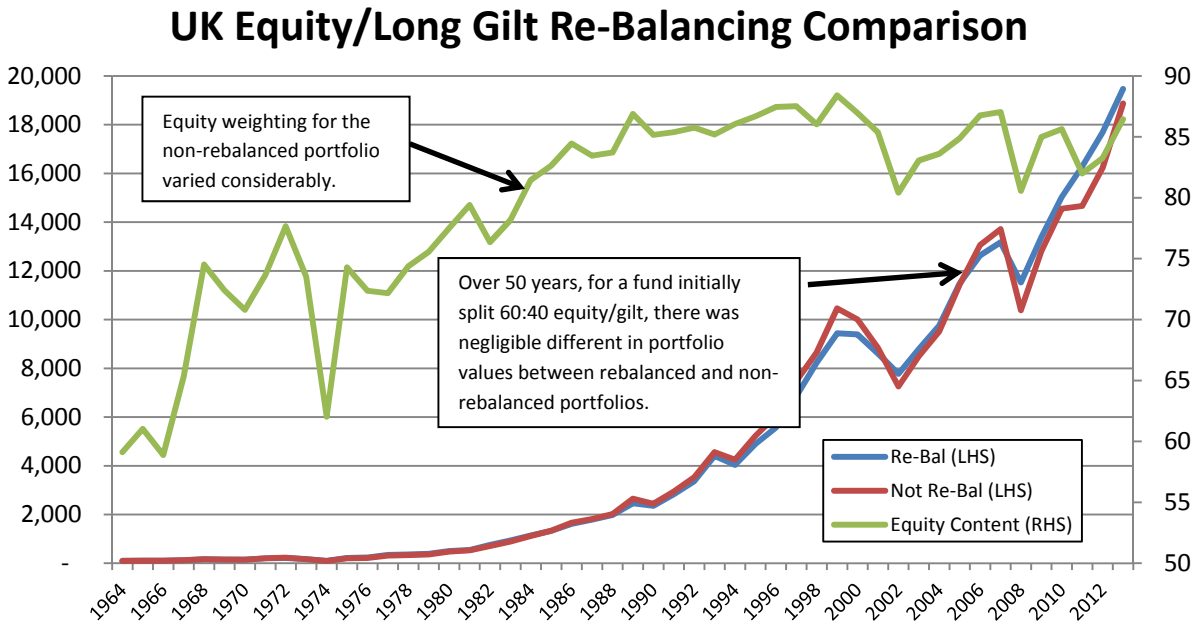
While regular rebalancing keeps asset weights steady and in line with a client's risk profile (where such has been established) as well as ensuring consistency of mandate for those investing in a fund or portfolio at different times, auto-rebalancing is not, of itself, a risk reduction strategy.

The fact that a portfolio's asset mix has been rebalanced to maintain, for example, a 70% weighting in equities and 30% in fixed interest, does not mean to say that such a portfolio will not produce negative returns.

What is more, those who engage in regular rebalancing should consider changes in relative valuations of asset classes from time to time, as well as remembering that correlations between asset classes can and do change markedly from one period to another.

60:40 split comparison

In comparing the performance of portfolios that have and have not been rebalanced, the chart below takes a long term view and plots two portfolios, both with a starting weighting of 60% in equities (FTSE All Share total return) and 40% in gilts (FTSE 15 year+ gilts total return), one of which has been rebalanced annually, while the other has had no rebalancing.



Over the 50 years, there is almost nothing to separate the two approaches in terms of cumulative investment performance (red and blue lines, left hand side axis). The cumulative return on the annually rebalanced portfolio is 11.1% per annum compound, very slightly ahead of the non-re-balanced one, where the return was 11.0% per annum compound.

Over discrete time periods there are more marked differences, however. During the period from 2008 to 2013, rebalancing produced returns of 11.1% per annum and a smoother ride than the non-rebalanced portfolio, which compensated for the bumpier ride with a higher return (12.7% per annum compound).

The green line (right hand axis) shows the progression of the equity weighting in the portfolio with no re-balancing and, having started at 60%, this varies from a low of 59% to a high of 88% in the period under review.

Other split comparisons

We ran the 50 year test across a range of initial equity/gilts weightings, and the results are set out in the table below.

Equity/gilt portfolios with varying initial weightings: rebalanced and non-rebalanced over 50 yrs

Equity/gilts split	*Cumulative return on asset class over period (% p.a.)*		*Annualised return on strategy*		*Range of equity allocation (%) under NRB approach*	
	Equities	*Gilts*	*RB*	*NRB*	*Low*	*High*
40:60	11.9	8.7	10.5	10.5	39	77
50:50	11.9	8.7	10.8	10.8	49	84
60:40	11.9	8.7	11.1	11.0	59	88
70:30	11.9	8.7	11.4	11.3	69	92
80:20	11.9	8.7	11.6	11.5	79	95

Notwithstanding the substantial difference in the annualised 50 year performance for each asset class (11.9% compound for equities as against 8.7% for gilts), regardless of the initial asset split, there was remarkably difference between the annualised performance for each re-balanced portfolio against the non-rebalanced one.

As might be expected given the longer term outperformance of equities over gilts, the cumulative returns of the high equity portfolios were higher than for the lower equity ones and, for non-rebalanced portfolios, the higher equity performance tended to lead to significant upward drift higher in exposure to that asset class over time.

Rebalancing over various time periods

Based on a 60:40 equity/gilt split we looked at the difference between rebalancing and not rebalancing over various time periods to end 2013.

Equity/gilt portfolios with 60:40 initial weightings: rebalanced and non-rebalanced over various time periods to end 2013

Number of years to end 2013	*Cumulative return on asset class over period (% p.a.)*		*Annualised return on strategy*		*Range of equity allocation (%) under NRB approach*	
	Equities	*Gilts*	*RB*	*NRB*	*Low*	*High*
50 yrs	11.9	8.7	10.5	10.5	59	88
40 yrs	13.0	10.7	12.6	12.3	47	80
30 yrs	11.1	9.0	10.7	10.4	60	78
20 yrs	7.4	6.9	7.7	7.2	52	78
10 yrs	8.8	5.9	8.3	7.7	56	67

With the exception of the 50 year result (when the return from rebalancing was pretty much identical compared to not rebalancing), in all other time periods reviewed rebalancing produced a higher return than not doing so, notwithstanding that in all time periods the return on UK equities was higher than that on long gilts.

Of itself, rebalancing does not do much to dampen volatility, as illustrated by the 50 year chart on page 117, where the two approaches resulted in similar fund value progressions.

Targeted Volatility Strategies

Taking hold in the UK

Pension investment strategies that seek to reduce and/or target a given level of volatility have been proliferating during the course of the past few years, the idea being that actively seeking to manage the volatility in the fund will protect the pension investor from sudden falls in asset values.

In the UK, these fund types are being marketed on a stand-alone basis as well as within variable annuity wrappers.

Suites of funds

Typically, investment groups active in this area are offering a suite of funds with graded levels of targeted/capped volatility: e.g. 6% volatility, 8% volatility and 10% volatility, with each variant having a different benchmark asset allocation (higher volatility targets having greater benchmark exposure to equities, and vice versa). The headline volatility number usually refers to volatility measured over a rolling 6 month period.

Dynamic asset allocation

Under these structures, asset allocation is managed dynamically, and it is typically the case that there will be a minimum allocation to bonds, while the allocation to equities will vary from time according to the amount of volatility being experienced.

A fund with, say, a 8% volatility target might have a 40% minimum allocation to bonds, with the benchmark equity content being 60%, but the actual equity weighting will reduce according to the amount of volatility being experienced (with the amount reduced re-allocated to cash or bonds) such that, for example, in times of mild volatility, the asset split might be 40% bonds and 60% equities, whereas in times of moderately high volatility, the split might be 40% bonds, 40% equities, and 20% in cash and, in times of high volatility, might be 40% bonds, 20% equities, and 40% cash.

Accordingly, as volatility waxes and wanes, the exposure to equities will be dynamically managed.

Given that increases in equity volatility have exhibited some linkage with decreases in equity prices (particularly in more recent times), managed volatility strategies tend to involve selling of equities at times when prices are heading or have headed lower, and re-allocating back to equities at time when prices are rising or have risen. In this way, managed volatility strategies can be viewed as momentum plays on equities.

Caveats

Note, however, that taken over the longer term (50 years) some studies show that the relationship between volatility and equity returns has been different, and so there have been periods times when dynamically managed volatility strategies would likely have produced worse returns than buy-and-hold or auto-rebalancing.

In cases where equities have a steady but prolonged downturn, such as in 2000-2001 (when UK equities gradually declined by 42% over a period of 29 months before taking a further 35 months to slowly regain the old market high), falls in market values might not necessarily be accompanied by a

significant rise in volatility, which might blunt the efficacy of a volatility targeted approach in reducing downside risk.

Dynamic allocation brings with it the possibility that equity allocation activity based on volatility signals might lag real time movements in market prices. Further, there is also the question as to the extent to which protection benefit from reducing equity exposures in down trends, compensates for the opportunity benefit from increasing equity weightings back up again in recovering markets.

Horses for courses

Buy-and-hold strategies are probably optimum for younger investors who are making regular contributions. Measured on a money-weighted basis, pound cost averaging to take advantage of market dips during the early stages of pension pot accumulation can add substantial real value.

Despite some potential issues about attrition from actively adjusting the equity weighting, dynamic volatility management strategies (where the fund group constantly monitors market conditions) can provide some useful protection for savers with more mature pension accumulation pots, and also can benefit those in drawdown, especially if the recent linkage between volatility and equity price movements persists.

Guarantees & Smoothing

Lots of development activity

The demographic opportunity combined with the 2014 Budget changes is spurring a huge amount of product development opportunity, which is keeping life companies, fund groups, investment banks and platform operators very busy.

Advisers should expect to see a huge range of new propositions come on to the market during the course of the next few years, many of which will incorporate guarantee and smoothing features aimed that those transitioning into retirement or drawing down on savings. Many are working in propositions that combine exposure to risk assets with guarantees or smoothing to blunt the sharp edge of market volatility, so get ready for a new wave of with profits, CPPI and variable annuity offerings.

With profits & smoothing

After a whole Riverdance of product and financial management mis-steps, there are now only a handful of providers actively promoting with profits via external financial advisers.

Closed books still active

Many of those that are closed to new business are still active in the provision of pension offerings, including old-style conventional with profits policies with guaranteed annuity options, as well as unitised with profits savings vehicles with MVR-free periods and, in some cases, guaranteed minimum growth rates (as high as 4% per annum compound in some cases), with many of these contracts accepting contribution increments. In addition, a small number of life offices have been writing with profit pension annuities.

New business seekers

The few providers still actively seeking new with profits business generally could be said to be among the strongest in the sector, and will be keeping an eye out for accumulation and decumulation product development opportunities in the newly-liberalised retirement market.

However, with the aim of reducing regulatory capital requirements, there has been a tendency on the part of some of the remaining larger “open” players to be stingy with the provision of “hard” and “heavy” guarantees such as spot MVR-free guarantees. Nowadays, offerings tend to have lighter, explicitly-charged money-back spot guarantees, which sometimes are optional and/or can be switched on after the contract starts, and some scope for smoothing (either on a discretionary or mechanistic basis).

CPPI

CPPI stands for constant proportion portfolio insurance, which is designed to provide an investor with upside potential from a risky asset at the same time as embedding a guarantee against downside risk (for example a guarantee of a minimum return of 90% of the amount invested).

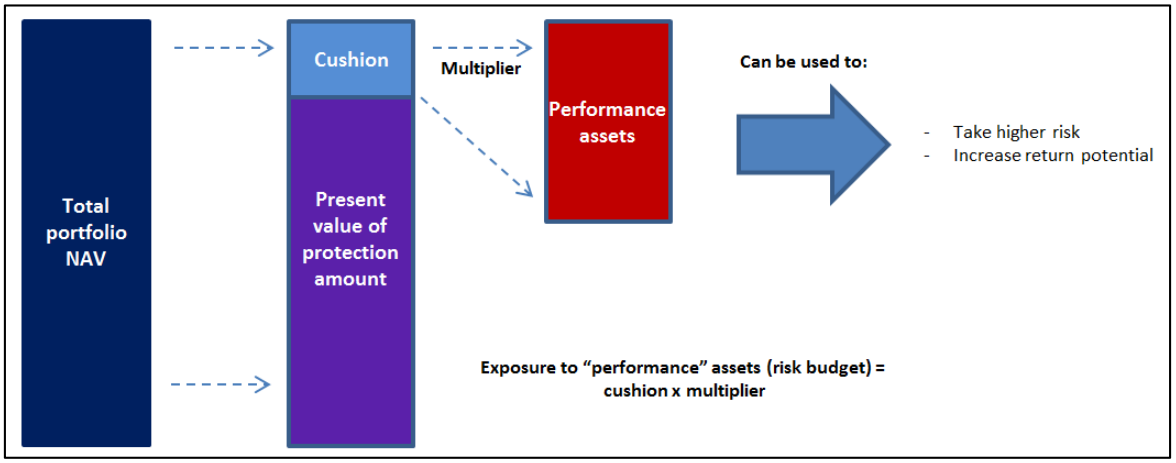
A portfolio is split into two sets of assets: “protection assets” (such as cash, higher-grade corporate bonds and gilts) that are held to provide the guarantee; and a leveraged set of “performance assets” (typically equity and/or mixed asset funds) to provide upside potential.

The leverage referred to above arises from the "multiplier" within the contract. Generally speaking the higher the multiplier, the higher the exposure to performance assets and the higher the gains in rising markets, but conversely the more rapid the fall in a declining market.

Example

Let us take an example of a contract that offers 90% protection after 5 years and operates with a multiplier of 4x.

Initially, the allocation to the performance assets underpinning a £100,000 initial investment would be £100,000 (initial investment) minus £90,000 (guaranteed amount) equals £10,000, which is then multiplied by 4 (the multiplier) and equals £40,000 allocated to the performance assets, with the remainder (£60,000) allocated to the protection assets.



If the combined performance of the protection and the performance assets is such that the total portfolio grows to, say, £105,000, then the strategy will allocate 4 times the difference between £105,000 current value minus £90,000 guaranteed value (i.e. 4 times £15,000 equalling £60,000) to the performance assets, while the allocation to the protection assets is reduced to £40,000.

However, if the total value of the portfolio (protection assets plus performance assets) were to fall to, say, £95,000 then the strategy will allocate 4 times the difference between £95,000 current value minus £90,000 guaranteed value (i.e. 4 times £5,000 equalling £20,000) to the performance assets, while the allocation to the protection assets is increased to £80,000.

Momentum approach

Accordingly, it can be seen from the example above that there is on-going, rules-driven dynamic allocation between the performance assets and protection assets, with a path-dependent momentum approach taken such that allocation increases to the asset group (performance or protection) that has performed better on a relative basis.

Cash-out risk

Note that the higher the multiplier the greater the risk that the total portfolio ends up being "cashed out".

If, for example, 90% protection was being allied with a 5 times multiplier then the allocation to the performance assets underpinning a £100,000 initial investment would be £100,000 (initial investment) minus £90,000 (guaranteed) amount equals £10,000 multiplied by 5 (the multiplier) equals £50,000 allocated to the performance assets, with the remainder (£50,000) allocated to the protection assets.

If the performance assets fell by 10% and the protection assets maintained their value, then the overall portfolio value would be £90,000, in which case the strategy would allocate 5 times the difference between £90,000 current value minus £90,000 guaranteed value (i.e. 5 times £nil equalling £nil) to the performance assets, while the allocation to the protection assets is increased to £90,000. Having been "cashed out of equities" there would be no way back to gaining exposure to protection assets.

Cashing-out was not uncommon in the early days of CPPI product design. In more recent times, providers have aimed to ensure that product design reduces or eliminates such risk.

Gap risk

Although CPPI portfolios are monitored constantly and actively managed, it is possible that, in periods of considerable volatility, the total value of the protection and performance assets could fall below the guaranteed amount. This is known as "gap risk".

These days, providers of CPPI products typically buy insurance against gap risk from a bank. The cost of gap risk protection is linked to the amount of leverage (size of multiplier) within a CPPI offering.

Accumulation & decumulation

Originally, CPPI was a lump sum accumulation proposition.

Currently, however, some providers are working on "individualised" CPPI offerings available for use by those drawing down retirement savings as well as for those saving for retirement. Concepts on the drawing board include defined capital protected minimum outcomes set to the individual investor's own preference, at the same time as seeking to provide investors with optimal exposure to return-seeking assets.

New offerings under consideration can accommodate a wide variety of funds from a range of managers on an open architecture basis, with scope for the adviser or client to set the over-arching strategic asset allocation, within which portfolios are subject to rule-based daily dynamic risk rebalancing.

Product types under development may enable contributions (regular and lump sum) during accumulation to be varied and stopped and started. Savers can individually set the level of any protection and lock-ins to suit their own needs, and the maturity of the account can be lengthened or shortened as required.

DB to DC…to DA?

For workplace pensions, the individualised solutions described above might be considered to sit between defined benefit and defined contribution, and possibly could fit within the defined ambition ("DA") category, without the cohort cross-subsidy problems that currently are proving problematic for DA arrangements in the Netherlands.

Variable annuities

Back in 2007, a large number of players (including several "big name" UK life groups) were planning to come to market with variable annuity offerings. Then came then global financial crisis and business plans were ripped up, not least because of capital constraints and the fundamental difficulties of manufacturing unit-linked products with guarantees in an environment when equity volatility was high and, of itself, volatile while interest rates were being nailed to the floor in the UK and the US as a result of quantitative easing.

The combination of the gradual return of market conditions to something akin to "normality" (rising interest rates and relatively low and stable equity volatility) together with the 2014 Budget changes are likely to lead to the number of variable annuity providers in the UK increasing substantially from the three that currently operate.

Transparency

To use an architectural analogy, in terms of transparency variable annuities, where asset allocations, guarantees and charges are clearly stated, could be said to resemble the Lloyd's of London building or the Pompidou Centre, with all the plumbing visible on the outside. This is contrast to the murkier depths of some with profits funds which, particularly before the introduction in the early 2000s of PPFMs and realistic balance sheets, were often times more akin to Albanian bunkers.

Features

Variable annuities currently available in the UK support pre-retirement accumulation, in-retirement decumulation, and some propositions straddle both within the same contract.

To date, we have seen offerings in a variety of tax wrappers, including onshore bonds, offshore bond, offshore purchased life annuity, personal pension, drawdown and trustee investment plan.

The investment benefits commonly seen include:

- *Capital guarantees*
- *Income guarantees*
- *Guaranteed deferral growth rates*
- *Retrospective high value lock-ins*
- *Benefit ratchets*
- *Enhanced death benefits*
- *Favourable tax treatment (withdrawals under certain offshore life annuities)*

Complexity

For all their transparency, variable annuities with their multiple moving parts and product options and guarantees are complex offerings, and advisers need to take care to properly analyse their merits in a client centric-fashion.

The same discipline applies to with profits (where providers still active are much more open about the internals of their offerings than typically would have been the case a decade or two ago) and CPPI.

Simply looking at the RIY does not constitute proper analysis (especially when the benefit against which to compare the charge level is complex).

We believe that it is essential to use stochastic modelling to properly assess the range of upside and downside risks and the guarantees and other benefits net of the charges made. This approach can be used to make a "fair" comparison against competing offerings, such as annuities or unprotected drawdown, and also can be used to blend product offerings to optimise the outcome for the client.

State Pension Deferment

Stick or twist?

The vast majority of people simply take the state pension when offered and spend the money or leave it lying in a bank or building society account.

In this section, we consider various other options, as follows:

- Re-cycling “unneeded” state pension payments into a pension plan.
- Deferring state pension in favour of a higher pension at a later date
- Deferring state pension and collecting a lump sum later

Deferring state pension for a higher pension later

The topic of deferring the taking of state pension in favour of obtaining a higher pension at a later date has attracted considerable new coverage recently, on account of the government changing the terms of deferment so that they are less generous.

Under the old rules, the state pension increased by 1% per annum simple (not compound) for every 5 weeks of deferral. That was equivalent to 10.4% per annum simple.

Under the new rules, the state pension now increases by 1% per annum simple for every 9 weeks of deferral. This is equivalent to 5.8% per annum simple.

The table below compares the state pension if taken from the outset, with the starting level of state pension if deferred for a particular number of years, and computes the difference in state pension. We have assumed that the base state pension amount will grow by 2.5% per annum compound.

State pension deferment (assuming RPI of 2.5%)		
Age	*State pension commenced at age 65*	*Starting state pension if deferred*
65	7,717	-
66	7,910	8,367
67	8,107	9,044
68	8,310	9,751
69	8,518	10,486
70	8,731	11,253
71	8,949	12,051
72	9,173	12,833
73	9,402	13,748
74	9,637	14,649
75	9,878	15,586

By way of example, if Bob starts drawing his state pension at 65, it will be £7,717 in year 1, rising (assuming 2.5% inflation) to £8,107 when he is age 68, and £8,731 by the time he gets to 70.

If he decides not to take his state pension at 65 but waits until age 67 to start drawing it, he will (taking account of the deferral factor of 5.8% per annum simple and assuming inflation of 2.5% per

annum compound) receive a pension of £9,044 to begin with. Likewise, if he holds off from taking the state pension until he is 71, the amount payable will kick in a £12,051 to start with.

The question is whether and to what extent Bob would really gain from deferment. For example, how much is he really benefiting from, say, postponing taking his state pension until he is 70 in return for a pension income that is £2,522 higher at that date than payable to another 70 year old who has been taking state pension since he was 65?

The act of deferring a state pension is effectively the same as buying an annuity. The calculations are a little tricky given that we are mixing up simple interest and compound interest, but our favoured money-weighted (IRR) approach will help us.

The answer, as may be seen from the table below, is that the longer you live, the greater the benefit from deferment. We can also see that, deferring for longer is worse.

IRR of deferring state pension after age 65 (assuming 2.5% RPI)							
Period of deferment	*Age of death (completed years) of pensioner*						
	70	*75*	*77*	*80*	*83*	*85*	*90*
1 yr	-39%	-9%	-5%	-0%	2%	4%	5%
2 yrs	-47%	-11%	-6%	-1%	2%	3%	5%
5 yrs	-	-20%	-12%	-5%	-1%	1%	4%
7 yrs	-	-31%	-17%	-7%	-3%	-0%	3%

If we focus on outcomes at age 83 (Bob's life expectancy as a 65 year old man), deferring for one or two years might produce a slightly positive return if he lives that long, but an IRR of 2% really does not appear to be good compensation given the longevity risk he is taking by deferring, which could go against him considerably if died at a relative young age (as per the -39% IRR if he died having completed 70 years).

On the basis of the data above, deferring taking the state pension now looks like a bad bet, with the financial impact of longevity risks very much to the downside as far as the pensioner is concerned.

Recycling state pension

So these days, deferring the taking of state pension does not look like a good idea. But, for some clients who do not need this money straight away, recycling it into a personal pension (subject to usual constraints of contribution limits, as well as rules on accumulating vested pensions) could be worthwhile if they have the right income tax profile.

The state pension is paid gross but subject to income tax. For clients whose total income (including the state pension) is within their personal allowance, it would be possible to benefit from the "grossing up" of their gross basic state pension by recycling it into a personal pension.

Impact of state pension recycling assuming 20% tax relief & fund growth of 0% p.a.										
Item	*Number of years state pension is re-cycled starting from age 65*									
	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Fund value (£)	9,646	19,533	29,668	40,055	50,703	61,616	72,803	84,248	96,022	108,068
IRR (%)	49.1	23.2	15.2	11.3	9.0	7.5	6.4	5.9	5.0	4.5

In the table immediately above, we plot the impact of recycling the state pension (which we assume will rise at the rate of 2.5% per annum so that contributions made over each year will be the same as in the first column in the table on the previous page), including the impact of "grossed-up" tax relief at 20%. To isolate and emphasise the impact of the tax relief, we assume fund performance of 0% per annum, and show the progression in IRR at each point in time.

It can be seen that the IRR diminishes the longer this strategy is pursued. This is because of the proportionate impact of tax relief at any time. That having been said, the money weighted returns are exceptional over the early years, even assuming nil investment return.

Of course, the client is likely to want to access the recycled pension pot at some point, which will involve consideration as to availability of tax-free cash, the tax rate applying on any funds withdrawn, whether to decumulate within the pension or, in some cases, the possibility of trivial commutation.

In summary, for clients with the right tax profile who do not need their state pension immediately, recycling it into a personal pension could be a much better option than deferment. Even adopting an investment strategy with low but secure returns (money market funds or short dated gilts), and allowing for tax, there is the prospect to generate reasonably attractive IRRs over the near term.

Deferring state pension for a lump sum

Provided that they put off claiming state pension for at least one year, clients deferring taking their state pension have the option of receiving a lump sum instead of extra pension.

The lump sum is based on the amount of state pension that would have been paid, plus interest on that amount at a rate that "will always be at least 2% above the Bank of England base rate".

Under this lump sum option, state pension will be paid at the normal rate when it is claimed.

Any lump sums may be subject to income tax, but will not be taken into account when assessing entitlement under new claims for pension credit or housing benefit.

With regard to taxation, lump sums are not added to the rest of one's income to work out the total income for tax. Instead, the rate of tax due on the lump sum will be the highest main rate of tax paid on other income (includes any weekly state pension once it starts to be claimed). Special rates of tax that apply to savings and dividends are not counted.

The tax rules for state pension lump sum payments are different from the tax rules that apply to any lump sum payment that from an employer's pension scheme or a private pension. This means that, for the state pension lump sum:

- if no tax is paid because other income, including any state pension, is less than the personal allowance, no tax will be payable on the lump sum;

- if tax is paid on any part of other income, including state pension, at 20%, tax will be paid on the lump sum at 20%;

- if tax is paid on any part of other income, including state pension, at 40%, tax will be paid on the lump sum at 40%;

- if tax is paid on any part of other income, including state pension, at 45%, tax will be paid on the lump sum at 45%.

Accordingly, receipt of a state pension deferral lump sum payment will not put a pensioner into a higher rate of tax than the rate that already applies to his or her other income.

Also, it will not lower the increase personal allowance applicable to people born before 6 April 1948.

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