

ABSTRACT OF THE LONDON DISCUSSION

Saving for Retirement Rules of Thumb Saving for Retirement Working Party

[Institute and Faculty of Actuaries, Sessional Research Event, London, UK, 20 May 2019]

The Chairman (Mr B. C. Horwitz, F.F.A.): Our presentation, Saving for Retirement, has been prepared by the Saving for Retirement Working Party.

Our speakers are first Stephen Hyams, who is the chair of the Saving for Retirement Working Party. He has over 35 years of experience in pensions during which he has advised both trustees and corporate clients of all sizes including some FTSE 100 firms. He has designed and established defined contribution (DC) schemes. His current work for the Money and Pensions Services has given him an insight into consumer perspectives about DC schemes. He is also the author of a Pensions Management Institute (PMI) Study Manual, with a section on DC pensions. Some of you may also know Stephen (Hyams) from his coverage in *The Actuary* magazine, where he has done a number of recent interviews, some of which have been pensions related.

Our second speaker is Alan (Smith), who is one of the founders of FirstActuarial. He is a scheme actuary to 15 defined benefit (DB) schemes. He began his career at Prudential, where he qualified as an actuary. He rose to become the managing director of Group Pensions as well as spending a period responsible for the Prudential staff pension scheme. He is also currently the chairman of the Company of Actuaries Charitable Trust, which is the charitable arm of the Worshipful Company of Actuaries.

Our final speaker is Chris Squirrell. He is also an actuary and is the founder of Financial Canvas which is an online modelling platform which provides actuarial and investment tools for pension schemes as well as acting as advisers to pension schemes. Prior to his current role, Chris (Squirrell) worked at Aon for 19 years, where he was a scheme actuary and worked in Acquisitions and Mergers and in risk teams. Chris (Squirrell) is passionate about modernising DB pensions, and he tells me that his current focus is developing a new piece for the pensions consolidation puzzle.

[AFTER A PAUSE]:

“This is the BBC and these are our top stories this evening at 5.30 pm. Good evening. Following the surprise announcement that Brexit has been solved by the UK becoming the 51st US state, President Trump Tweeted: ‘Great news British people. I am announcing a reduction to the tea tariffs to make up for all that Boston nonsense.’

Turning to business news: the Bank of England has responded to rising inflation by increasing rates to 1.25%. The pound has rallied, rising by one cent against the dollar. Equity markets were volatile with the FTSE 100 closing at 7500.

In good news for pensions savers the Lifetime Pension Contribution (LPC) – ‘the required contributions paid over a full working life to provide a reasonable pension for the average person’ – fell to £500 per month. Let us cross over to Stephen Hyams live at Staple Inn to find out what this means for our retirement savings.”

Mr S. D. Hyams, F.I.A. (introducing the paper): The fall in the LPC, the benchmark pensions saving statistic, is certainly good news as it means a reduction in the cost of providing a decent pension, while your retirement savings will buy you more.

There are early signs of increased activity from the LPC smart phone app and the pensions dashboard as people start to reassess their retirement plans.

There is a glimpse of the possible future when the pensions saving statistic, the LPC, or lifetime pension contribution, makes headline news and has real impact. That would really be an achievement.

The LPC is one of our rules of thumb, or heuristics, to help people plan for their retirement. There will be more about that later but first I will give some contextual background. In a world of defined contribution pension provision, savings for retirement have become a hot topic. We have a foundation of compulsory pension provision through the state pension and automatic enrolment. People can opt out of the latter but few do so. These two pillars of pension provision were never intended to be enough to provide an adequate retirement income, and automatic enrolment does not apply to the self-employed.

Hence, voluntary pension savings are crucial for both employers and individuals. But how much voluntary contributions are needed to provide a decent retirement income, and how can we raise awareness of people to engage with this very difficult long-term issue?

Raising awareness is certainly needed as current levels of pensions savings are woefully inadequate. The latest Office of National Statistic (ONS) survey of occupational schemes revealed an average total contribution rate to DC schemes of only 3.4% of pensionable earnings. This has fallen from 4.2% in the previous year, with average employer contributions at 2.1%. An average tells only part of the story, but the overall picture is one of very limited voluntary pension contributions.

This can be seen as part of a wider malaise. Recent ONS figures show the UK household savings ratio at a historical low level. Once a nation of shopkeepers, we have instead become a nation of shoppers.

To help encourage more pensions savings, the Institute and Faculty of Actuaries (IFoA) have been arguing for a bottom up, or outcomes-based, approach which focuses peoples' attention on their expected standard of living in retirement. The idea is that this will encourage them to explore what contributions are needed to provide for their retirement and take action accordingly.

Setting a retirement income target is needed to initiate this process. In the UK, the most commonly used retirement income target is salary related in the form of the replacement ratio. The Pensions Commission suggested this should be two-thirds of final salary for someone on average earnings, equating to about £18,000 at the present time. The logic is that expenses are less after retirement so people need less than 100% of final salary.

This is a crude measure but has proved useful for pension policy purposes. A different approach is to work out how much is needed to provide a particular standard of living in retirement based on goods and services which people would expect to buy. This monetary approach is employed in Australia where they have a separate target for each of three alternative standards of living. The Pensions and Lifetime Savings Association (PLSA) is adopting a similar approach in the UK and is due to publish their proposals for retirement income targets shortly.

It is this monetary approach which was the inspiration for our rules of thumb as we seek to answer the question: "how much do people need to contribute in their working lives to achieve a particular target retirement income?"

We are all different, and in reality, retirement income targets should reflect personal circumstances. For example, the Living Standard Replacement Rate seeks to tackle this problem head on. Such refinement is clearly beyond our remit but is a reminder that rules of thumb can only go so far in assisting people.

In setting our target retirement income, we should recognise that household costs are shared. It is widely acknowledged that for two people, these are less than twice those for a single person,

around 1½ times, in fact. So do we target for a single person, half a household or somewhere in between? Once that question is answered, there are further issues to be addressed before we can start calculating the contribution rate. Most importantly, what is the intended retirement age? Clearly, that will have a substantial impact on the cost. What allowance do we make for protecting the purchasing power of the pension in retirement against the ravages of inflation? There is also inflation to consider in the period before retirement and the related issue of earnings growth.

What allowance should we make for other retirement income, in particular the state pension? Finally, should our target be determined before or after tax? Alan (Smith) will address these matters shortly.

So, how much to save for retirement? Rules of thumb certainly do not provide a precise answer at an individual level. However, we believe our rules of thumb can provide a platform for the actuarial profession to participate in this important public debate as well as being of potential use to consumers.

A rule of thumb should provide a guide for most people most of the time. Evidence shows people respond to such heuristics if well-constructed. By “most people”, I refer to our target audience whom we see as being non-advised consumers reliant on DC pension provision. Those with more substantial financial means can afford to take advice, while those on low incomes will rely on the state pension and automatic enrolment.

By raising awareness, rules of thumb can encourage people to use more bespoke tools and guidance.

The Financial Conduct Authority (FCA) has provided guidance on judging what makes a good rule of thumb: Is it factual or evidence-based? Objective? Independent? Is it universal applying to most people and time periods? Does it promote action? Is it relevant, believable, and achievable? Is it intuitive, making sense in a straightforward way? Is it simple and memorable sparking the interest of readers and, finally, is it empowering, using positive language to motivate?

Our first rule of thumb is the LPC mentioned in our earlier news broadcast. This is a guide to the contribution to be paid over a full working life to provide a decent pension. We have another rule of thumb: what pension you can expect from a given contribution over a full working life. We also consider how our rules of thumb vary according to retirement age. Finally, we have a rule of thumb to check if you are on track to meet your target retirement objectives.

Alan (Smith) will now take you through how we derive our rules of thumb.

Mr A. E. Smith, F.I.A.: To determine our LPC or lifetime pension contribution, we used a three-step approach. The first step was to decide what income we are looking to provide and when do we want it to be provided, or what is the retirement age? The second step, having worked out the desired income, is to decide what pot of money we need to build up in order to generate that income. Then, the third step is to decide how much we need to save during our working lifetime to make sure that we build up that pot of money.

For step one, retirement income, we assumed a two-thirds replacement ratio. The PLSA are working on their retirement income targets, although they have not actually published their work yet. Average earnings are about £27,000, so our target income is £18,000 before tax, this being a combination of the state pension and the DC pension. So what we are trying to build up with our LPC is £9,500 to bridge the gap between the income target people need and what the state will provide.

We based our LPC on a retirement age of 68. That is the state pension age for people who are now in their 20s and 30s and who are essentially our target market for this exercise.

When we consider income, we know that most people who buy an annuity tend, possibly for the wrong reasons, to pick a level annuity. We want income to maintain its purchasing power throughout retirement. In addition, if we are targeting a percentage of earnings at retirement that target should reflect earnings growth between now and retirement.

When we have been looking forward, we have assumed an earnings link up to retirement and a prices link thereafter. There are similarities with the state pension, where we have the triple lock, to protect purchasing power.

Another important point is we have aimed for a single-life pension. You could argue that in a household, two people can live cheaper than two individuals. Nonetheless, we have gone for a single-life pension with no widows, widowers or dependants' pensions. This is similar to the approach the state pension is following now.

Of course, people may retire later than 68, as the later you retire, the cheaper it becomes, but we have to start with some assumptions.

If we consider the target that we are looking to provide (which is £9,500 p.a. from the state pension age) we have worked out that in today's money, you would need a pot of £310,000 if you were going to provide that through an annuity.

Many people will think that no one in their right mind would buy an annuity at the moment and that was my first thought when we were discussing this in the working party. But if people want an income without taking any risk about living too long or their investments not performing well, the only way to do that at the moment is to buy an annuity.

What actually surprised me was if we asked ourselves: "we have that £310,000 but instead of buying an annuity from an insurance company, perhaps because they seem expensive, how could that work as a drawdown fund?"

Stephen (Hyams) did a thousand simulations with his stochastic model and we found that there was an 85% chance that £310,000 would last 30 years in drawdown. Commentators would say a safe withdrawal rate would have a 90% probability of lasting 30 years. In actuarial terms, 85%–90% is pretty close to indicating a safe withdraw rate.

However, there is the tail risk. There is about a one in four chance that a 68-year-old in the future would live for 30 years. So, there is still a risk that people will run out of money.

I will briefly outline the financial assumptions we used. We took price inflation to be 2.5%. We chose that parameter to be consistent with the projections specified in Technical Memorandum 1. In fact, the result is not dependent on the base level of price inflation. What is important is the real returns above inflation you assume on investment and earnings growth.

For our base case, we assumed real earnings growth of 1.5% a year, and for investment returns, we used a life-styling method with a 10-year life-styling period. We have, after expenses of 0.75% p.a. (the maximum allowed for default under auto-enrolment), a 2.25% real rate of return, which would reduce slightly as you run into retirement as the asset mix changes slightly away from growth assets into more secure assets.

We did consider the sensitivities around the results, and the details of this are in the paper for those people who are interested.

The lifetime pension contribution that was calculated on average was around £525 a month. We are assuming here contributions from age 22 to 68 years. We choose 22 because most people are in the workforce by that age and at the moment that is the age when auto-enrolment kicks in and becomes compulsory.

Looking at the graph in Figure 1, that £525 goes up each year in line with average earnings. It works out at about 23% of average earnings, so there is a risk that this will disengage people.

An interesting analogy here is with the advice to eat five fruits or vegetables a day. The scientific research shows that you actually need 10. Five is obviously more catchy, more easily understood, more achievable, than 10.

As actuaries, we felt that we would be doing a disservice if we did not look at what we thought was the right level of LPC and started to compromise at an early stage. We realised there is a risk of disengagement. People may think: "I cannot afford £525. I am not going to bother."

The LPC is so high because we have low interest rates. The annuity yield that we are using is –2%. So the cost of annuities is really high.

Derived LPC

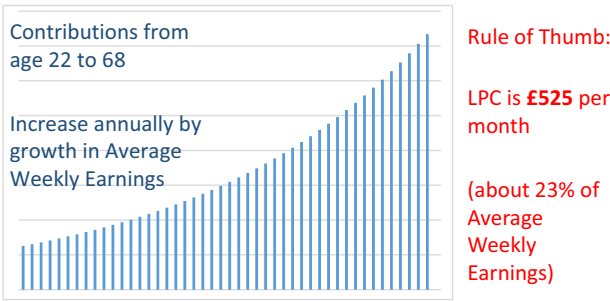


Figure 1. Derived LPC.

Target pension: rule of thumb, retire at 68

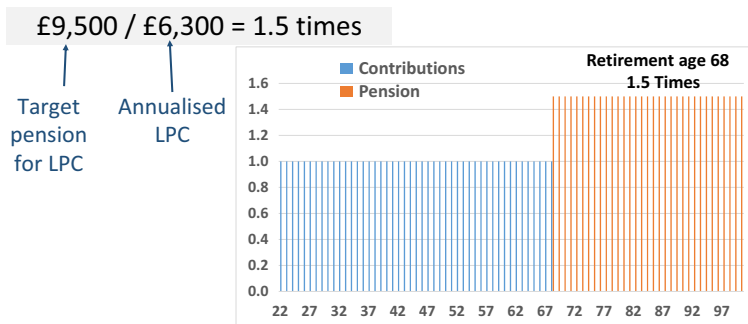


Figure 2. Target pension: rule of thumb, retire at 68.

Individual annuities are much more expensive than bulk annuities. I spend a fair amount of my time dealing in the bulk annuity market with buy-outs and buy-ins for pension schemes. The bulk annuity rates that I am used to working with are quite different to those available to individuals.

In this exercise, we have not assumed enhanced annuity rates or impaired life annuity rates. We have just been looking at standard annuity rates.

Another factor is that individual drawdown is relatively expensive. In the future, there could be collective solutions that would give better outcomes for individuals. There is work going on at the moment about collective defined contribution schemes. There could be a collective solution just for the decumulation stage.

Another idea might be that once you have accumulated your pot, you may be able to top up your state pension. There is a facility to do this by voluntary National Insurance contributions to boost their state pension. Why not extend this facility? The state pension system in terms of efficiencies is better than even a large insurance company can offer.

Our second rule of thumb was to say: “we have the LPC, if you are paying a certain amount of contribution, what pension might you expect from that?” The LPC gives a target pension of £9,500, in other words, an annualised LPC of £6,300 gives an income of 1.5 times that. Thus, if you are saving £100 a month, you could expect to receive retirement income of £150 a month.

This meets one of the intuitive tests for a rule of thumb that Stephen (Hyams) mentioned earlier because if you are working for, say, 46 years from 22 to 68, and then retire for, say, 30 years, you are, roughly speaking, working for one and a half times the amount of time that you are in retirement. So, the area of the blue part and the orange part you can see in Figure 2 should be about the same.

Blown off course – Lower Pension

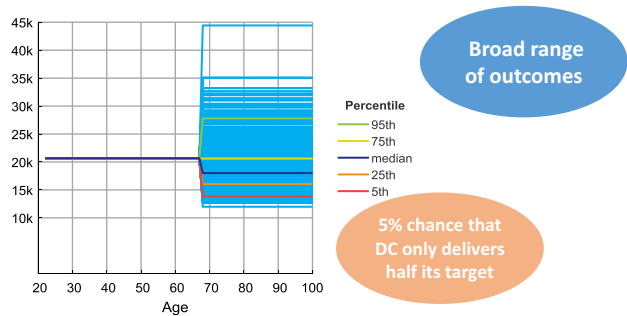


Figure 3. Blown off course - lower pension.

That is the sort of rule of thumb that might engage people. If you say they really should be paying an LPC of £525, they may respond that they cannot afford that and can afford only £100 a month. You could say if that is what you can afford, then this is what you might expect. They might then think that perhaps they should pay a little bit more.

We have looked at rules of thumb at other retirement ages. For example, if you feel able to work until you are 72, this would increase the ratio between your pension and contribution to two times. Likewise, the lifetime pensions contribution would reduce. These figures assume that when you retire late, you defer your state pension as well.

We also did some investigations about retiring early. That becomes a little complicated because you need to have a bridge to make up the shortfall while you are waiting for the state pension to start. We could not find a simple rule of thumb that helped with early retirement.

The next thing that we considered was what if things do not go according to plan. We have come up with some benchmarks. If you are age 45 and you have been paying the LPC, what should your fund be? This type of information might be quite helpful if, and when, the pensions dashboard is available, so people will obtain their statements. They could then do a quick rule of thumb calculation to see whether they were broadly on track or had gone off track and needed to take some action.

Mr C. M. Squirrell, F.I.A.: In practice, anybody involved in pensions, investments, life or general will know that things will go off track. We consider what this would mean for the rules of thumb.

If we consider the rectangles in Figure 2, the money ultimately has to move from the blue contributions rectangle to the red pensions rectangle. The key thing we should focus on is making the contributions rectangle bigger. We can consider different investments and think about not paying high charges. We can pay higher contributions. If we cannot do these things, then it means we are going to have to pay for longer. We can retire later, work longer, and make this rectangle bigger.

If we cannot make the contributions rectangle bigger, we can make the pensions rectangle smaller – corresponding to a shorter retirement or a lower pension.

The new pensions rules give us the freedom to not take a lower pension. In that case, we are just going to run out of money.

Thinking about those rectangles, we did some calculations about what might happen to a saver in practice. We took our member and made some assumptions about investment returns and projected forward to see how big the fund might be.

The main outcome we should like to focus on is retirement income.

As we go into retirement, we have our state benefits and our DC fund. We ran our projections 2,000 times and came up with a distribution of incomes and retirement. We see a striking and broad range of outcomes as shown in Figure 3. We are making sensible assumptions about the level of volatility and not using a particularly risky investment strategy.

Blown off course – Vary Contributions

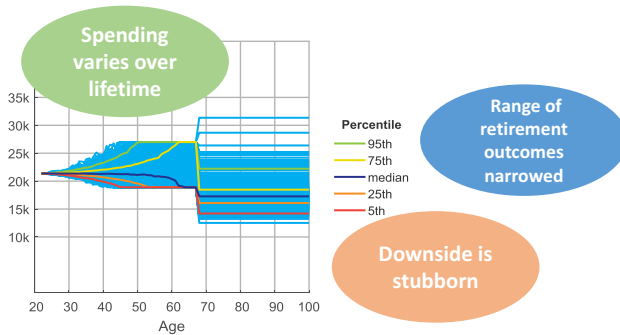


Figure 4. Blown off course - vary contributions

Blown off course – Retire Later

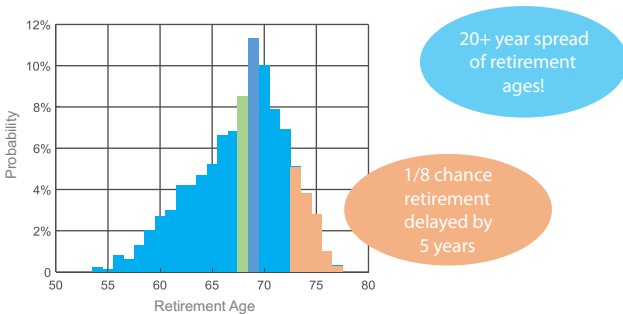


Figure 5. Blown off course - retire later.

Looking at the lower percentiles, there is about a 5% chance that the DC fund delivers only half of what you might have expected. So, we might be blown considerably off course and have to take a lower pension if we do not do anything.

We could pay a bit more. We looked at using the rule of thumb. Each year, we were able to say I am behind so I will pay in a bit more. Or I am a bit ahead so I will spend a bit more money now.

What does that do to the amount of money that I have available to spend during my working life? We now have some variation through our working life as shown in Figure 4. The retirement outcomes have been narrowed quite substantially. The downside is, however, quite stubborn. We cannot make an enormous difference by paying in more money in those scenarios where the assets have not performed very well.

We looked at what could be done if people are blown off course. Say, I have not reached my £18,000 yet so I will retire later. We did calculations to see in which year would I reach this retirement threshold and can have a reasonably comfortable retirement.

In Figure 5, we have a histogram showing the probability of being able to retire in any year. The median, happily, is 68. The most likely single age to retire is a year later. There is a huge spread. We are looking at between 55 and 75, around 20 years of uncertainty. There is around a one in eight chance that retirement is delayed by 5 years into the early 70s.

That was a glimpse of the amount of uncertainty a saver might experience if they followed the rules of thumb. That started us thinking about further work we might do and how it might inform how these rules of thumb are communicated or used.

Our early thoughts were to look at the three levers independently, that is, investing more, investing for longer or retiring later. In practice, a mix of solutions might be more appropriate, that is, variation of contributions, some phased retirement and accepting variations in retirement payment.

Using the Rules of Thumb

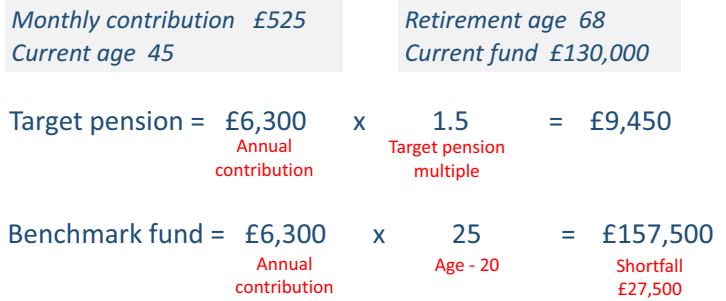


Figure 6. Using the rules of thumb.

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Smartphone app - identify my status

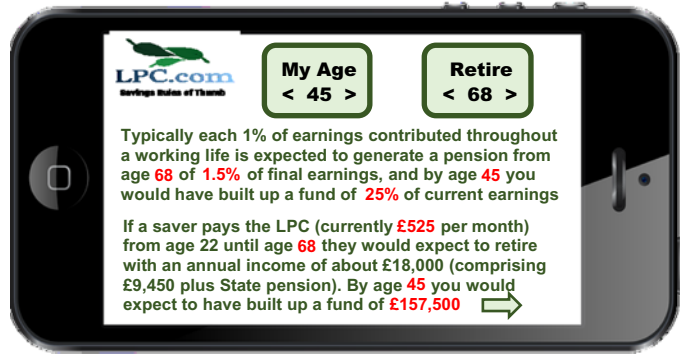


Figure 7. Smartphone apps - identify my status.

How might this work in contribution patterns? In practice is a flat £500 appropriate or might it be better to help guide savers through working life not paying constant amounts over that time?

If we can start to do that, how might you then provide the messages to guide people along a path that ultimately would be satisfactory?

That is partly about being blown off course when things do not turn out as expected.

Another element was how does our saver react to this information? How do they take some of these actions that are needed?

So, let us take a step back and consider an example shown in Figure 6. Say I am about 45 years old. I think my retirement age is 68. I am told I am paying in about £500 a month. Given I am paying in about £6,000 a year, my rule of thumb has told me that my pension will be £9,500 and also that I should have £160,000 or thereabouts. So, I can see what I have saved and that I am behind track.

Comprehending and acting on this sort of information are probably quite difficult for most people. It would be useful to have some gentle supporting material that explains what these numbers mean and how to act on them. The hope is that people look at a simple app, and say “ that is what that means, so I am a bit behind”. Then, they can press a green button and see what they can do about it.

Figure 7 shows the example mentioned above. I am 45 and paying £525. I want to retire at 68 with my £18,000 pension. That is all reassuring and in line with the rules of thumb. But, say, I have only £100,000. If you still want to have the same level of retirement income, the app. can tell you that you need to increase your contributions to £743 a month as shown in Figure 8.

Smartphone app – what can I do?

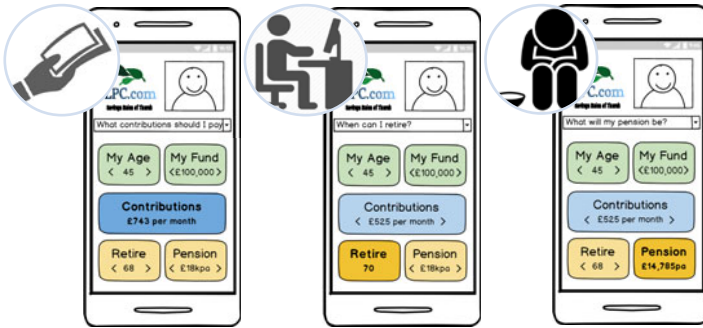


Figure 8. Smartphone app - what can I do?

Increasing awareness and triggering action

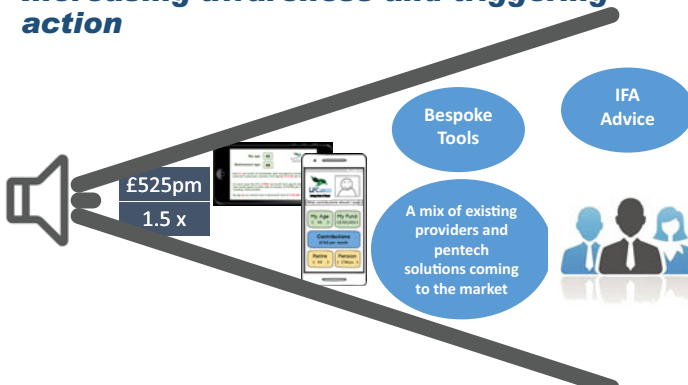


Figure 9. Increasing awareness and triggering action.

If I did not want to increase contributions, the app could also let me know when I could retire as shown in Figure 8. In this example, if I carry on paying £500, then I can retire at 70. If I am not sure about that, the app can also estimate my pension at age 68 if I do not change my contributions.

What we are trying to do is to take general rules of thumb and create something which allows people to think about their retirement options.

Figure 9 shows how we see this. At the beginning are two numbers. People should be generally aware of these in a similar way to people being aware that they should eat five helpings of fruit or vegetables a day. If you leave Staple Inn after this session and if you ask first person you see how much they think you need to pay into a pension, they will not know.

Would it not be great if people were aware that it should be about £525 per month. It might start a conversation as we have conversations about “five a day”. It might also lead people to go somewhere where they could find out more about the issue. It could move things from a general conversation in a pub into a slightly more informed conversation.

In the example above, I would now know in my situation I could pay £700, or I could wait until I am 70 or I could just keep going as I am and I would receive a bit less. We are trying to achieve that sort of general awareness among people.

We are not in a vacuum. We have auto-enrolment in workplace pensions. We have all seen the advertisements about getting to know your pension. We are now in an environment of apps and bespoke tools. There are all sorts of new solutions to help guide individual savers to make good decisions.

With a workplace pension, it is easy to find out what we have saved. It is also easy to make changes. Whilst working on this project, one of my students had a bit of a fright when he looked

into this and he is now paying more contributions. He had never thought about these issues before. So, this approach has already had a positive effect on one person's planning.

Figure 9 depicts that if you start with the basic information on the left, we hope we might move into a continuum of more informed discussion which otherwise might not have started at all.

We have seen people can be enabled to take action and how rules of thumb might work and I will pass back to Stephen (Hyams) to summarise.

Mr Hyams: Before we start the discussion part of our meeting, I will briefly recap. Referring to the three-step levers mentioned by Chris (Squirrell), the LPC is the indicative working life contribution needed for a specified target pension at retirement. This is generalised in the rule of thumb which indicates the expected target pension based on the given contribution and retirement age, and both these rules of thumb are then adapted for other retirement ages. All these rules of thumb are aimed primarily at young consumers with minimal accumulated assets.

For older consumers, we have a rule of thumb for determining the benchmark fund which follows a pathway to the fund that you need at retirement to meet the chosen retirement objectives. The benchmark fund can then be compared with the consumer's existing DC funds to check if they are on track. The pensions dashboard will clearly play a vital role in facilitating that comparison.

Life rarely goes according to plan, so people need help in evaluating their options. Getting back on track might not be affordable. It could mean amending your retirement objective.

Chris (Squirrell) explained how our rules of thumb can be automated into a smart phone app. to help evaluate alternative strategies based on the three-step levers of contributions, target pension, and retirement age.

Our illustrative LPC is based on a particular target which still has to be determined. We are not saying that £525 a month is necessarily the correct figure. We envisage the LPC increasing annually in line with average weekly earnings and to be reviewed periodically along with the other rules of thumb.

We suggest having a single LPC to give maximum impact. We see the concept of the LPC as facilitating wider debate. The first thing would be to discuss what target income should be used. This needs to be set appropriately and then, if necessary, the retirement age can be flexed to ensure that the LPC is affordable. That way expectations will be properly managed.

Employers have a vital role in making the LPC affordable. The employer contribution rate under automatic enrolment is 3%, which is very low. It is not even based on total earnings. It is well behind the highly acclaimed 9.5% that Australian employers are required to pay, which is going up to 12% in 2025. It would be good to see more employers offering to match employee contributions on a voluntary basis to promote higher levels of pensions savings.

The DC market is inefficient. The use of bulk purchasing power and risk sharing could help make the target pension more affordable which of course would bring down the LPC. We have the problem of low interest rates which certainly are a major reason for the high cost of pensions. We cannot predict future interest rates. But perhaps one might expect the unravelling of quantitative easing to have the effect of causing interest rates to rise.

Then, we have the subject of risk. Risk is linked to affordability in that we can potentially reduce costs by taking more risk. But, this would be at the expense of greater uncertainty and possibly worse outcomes.

Firstly, how confident do we wish to be that the fund at retirement will provide the desired lifetime income? We have based our illustration on the cost of purchasing an annuity, index linked. Intuitively, one might think that drawdown requires a lower fund as annuities are regarded as expensive and provide guarantees. But, our analysis shows that one needs a larger fund for a so-called safe withdrawal rate, a conclusion shared by other research.

Secondly, will the assumed investment returns deliver the anticipated fund at retirement?

Chris (Squirrell) has already illustrated the considerable uncertainty over a 46-year period. We really cannot be at all confident about the final outcome, hence the need to monitor the situation on a regular basis.

Contributing more to provide a larger fund at retirement and/or to rely less on investment returns to achieve a target provides greater security. Again, we have sought to achieve a balance based on a medium-risk investment strategy. We saw that as being appropriate for our target audience.

Finally, we were aware of the FCA's criteria for good rules of thumb. Market research will be needed to test if our rules of thumb work. Even if feedback is positive, they would only be effective if they were adopted across the pensions industry in a consistent manner and are linked to tools that make them readily actionable.

Mr M. A. Woodruff, F.I.A. (Opening the discussion): Congratulations on an exciting piece of research. The power is in the simplicity of the rules of thumb. One of the things that unsettled me is the affordability of £525 a month, £6,300 a year, against a £27,000 salary, which is a contribution of 23% before tax and national insurance. That is not affordable for the majority of people.

There are various ways in which you can address that. One of them would be a kind of staircase auto-enrolment moving more quickly to higher levels to provide an underpin.

I have another suggestion which would be a genuine policy point. This is funding pensions for children about which I am quite passionate. If, for example, you do not pay any tax and the maximum pension contribution that you can make is £3,600, if you were to contribute that for a baby through to the age of 10, when that grows to age 55, it would be worth well over £1 million, assuming reasonable levels of growth.

Currently, you benefit from 20% tax relief for the contributions, so it would cost you £2,880 a year. The policy point that I am thinking of is should the government create a pension plan for babies, into which they contribute £30,000 either as an initial lump sum or over a period of 10 years, which is available to the children when they reach age 55. The reason that the government would be interested in doing that is it would save money in the long run. It would cost around £20 billion a year to put £30,000 in for each baby, based on around 700,000 births per annum.

Basically, this tackles the problem that we are seeing here by bringing forward the point at which you start contributing so you benefit from an extra 22 years of compound growth. The government could make a gesture to contribute the money or they could increase the level of tax relief on these kinds of products to say 50%. There are various different ways that government can address the cost of this and perhaps fund it out of national insurance contributions or a lower potential state pension obligation in the future.

Mr Hyams: It is well recognised that starting early is always good and it is an interesting idea to start from a very young age. It will clearly take a lot off the burden later and it makes a lot of sense.

Mr Smith: I cannot see that happening. There was UK government Child Trust Fund where they put in £250 or £500 depending on parents' income: this closed in January 2011 immediately before my first grandchild was born. As it was closed, I would not trust the government to follow this type of approach.

A key thing is the £525 does sound a lot. But, it covers both employee and employer contributions. What we have alluded to here is that the current auto-enrolment minimum contributions, whatever tier you choose, are not adequate.

Our concern is that this is giving people a false sense of security. They think that because they have a workplace pension, their pension arrangements are fine. What we are trying to make clear is that they are not.

Mr M. G. R. Stickland, F.I.A.: The rationale for a pension of two-thirds of average income in retirement being considered to be adequate is that people will not have housing costs, national insurance contributions, or other pension contributions to pay any more. A typical person retiring today would have probably paid off their mortgage. A lot of this work is looking at people in their 20s and 30s. A typical person today in their 20s and 30s with an average income would be a private renter and probably would not have paid off the mortgage by retirement age.

I would query whether £18,000 will be sufficient to maintain a similar lifestyle to that they might have earning £27,000, if they are still paying rent or paying off a mortgage for a number of years in retirement. How could that be incorporated without overly-complicating the whole thing?

Mr Hyams: We have gone for simplicity. The £18,000 is just an illustration. We are waiting for the PLSA's figures to see what they believe is an appropriate target for an average person. We will be guided by that.

Clearly, everyone is different. We are not suggesting that you can have a single figure that is going to work for everyone. We need to agree on an average figure. It may be £18,000. It might be different. It may be, taking your point, that it should perhaps be a bit higher than £18,000 which would, of course, create even higher costs. This is all part of the debate.

Ms K. M. Brown, F.I.A.: We can turn the measure on its head. The problem with relating it to the average person is that nobody is average. If we want something that anybody can talk about regardless of their income, we could frame it as: "for every hundred pounds that is contributed every month, the amount of pension you would receive would be, say, £1,500." This would encourage people to take positive decisions about how much they want to contribute or have jointly contributed by themselves and their employer.

So that becomes an empowerment tool for decision-making. At the moment it is framed as: "you have to hit this target or else you have failed." It could also then work for different levels of aspiration. This approach would be an interesting alternative to test when it comes to consumer testing.

Mr Smith: Our second rule of thumb is that the retirement income based on the assumptions and retiring at 68 would be 1.5 times what you save. If I have understood you correctly, does that not answer your question?

Ms Brown: It does. But I believe that two rules of thumb become too complicated. I do, however, agree with you that it is the same maths.

Mr Smith: I would be interested in other views on that. My wife is excited when she does her 10,000 steps and when she eats her five fruit and vegetables a day. She can talk about two rules of thumb.

Mr Hyams: We deliberately have two different rules of thumb. I can see your point that not everyone will want that. I am not sure that there is a conflict as they are both consistent. The £525 is simply the one and a half times scaled up. We are saying that for the average retirement income, it should be this number of hundreds. We are saying the same thing.

Miss P. S. Aaronson, F.F.A.: I welcome the work that the working party is doing and I understand what you are trying to achieve. What is also important to understand is that the average consumer does not understand pensions at all.

We have to go back to basics and have much more financial education starting at an early age, so that people, by the time they reach the age of 22, appreciate the value of saving, whichever figure it is with LPC. Financial education is very critical before you can try to explain all these things.

Mr Hyams: Absolutely. We recognise that pensions are a very complex subject.

Mr Smith: We as a profession are doing things to help. The Company of Actuaries Charitable Trust, of which I am the chairman, is helping the Royal Institution to provide a module on financial education as part of their Royal Institution master classes.

There are a number of things that need to happen. As an actuarial profession, we are helping with that wider debate. However, we cannot just think that we will not come up with a figure until we have educated everyone. You have to make a start somewhere.

Mr Squirrel: I know that there is some great work going on with firms saying that they want to be able to guide and advise people to make better savings and pensions decisions.

This is an attempt to grab the attention and then to direct people to things that are there and things that are coming and then to provide education.

Mr Hyams: A lot of it is down to the packaging. The idea of a smartphone might appeal. We are not saying we have got it right in terms of how we propose to present, but there are communications people who can do something rather more sophisticated and make it appealing.

Also, as I mentioned earlier, the rule of thumb is not really much use unless it can be linked to some action. You do not want people to make rash decisions but you want to make it easy for them to act and that is going to be also important. We do not claim to have all the answers but just some ideas to consider.

Mr J. B. Cheeseman: One of the issues is trying to persuade the employers to increase their part of the LPC ratio.

I wonder what kind of ideas has already been produced about that. For example, could there be something like using a rule of thumb to say this is roughly what people are meant to be saving in an LPC. Companies and employees can then compare this to what is actually being contributed and taking appropriate action

Mr Hyams: That is interesting. It may be the concept of an LPC might put more onus on employers to start thinking about how they might help people meet that cost. It could be that there will be more engagement with employers. Perhaps there could be a step change in the way employers look at these things because of the LPC and think about putting in more money.

At the moment, a lot of employers perhaps think that the pension is something we have to do. Maybe we could create a shift away from that attitude by thinking along the lines you outlined.

We all know what the total figure looks like. There could be pressure from the employees who want to pay more and ask their employers whether they would be willing to match that. If that happens more, it must be very healthy and good. So, employees clearly have a big role. It is not just about automatic enrolment. It would be even better if it were voluntary. Obviously, a combination would be good.

Changing automatic enrolment rates clearly is not a simple matter. It is very political and could be a long way off. Whereas, voluntary changes might happen more quickly if the employer is actually engaged with this idea.

Mr D. J. Robbins, F.I.A.: My first point is that the rule of thumb that you often see quoted in the press is that the contribution rate should be half your age at the time when you start saving. Your headline finding here, certainly for a 22-year-old, is quite a lot higher than that, being just over your age at the time of starting to save.

I have not looked into how the widely quoted equation was calculated. Do you know the main reasons for that difference? I assume it was to do with investment returns which you are assuming would be rather lower than would have been assumed a few years ago.

My second point is that with anything like this, you have to make some simplifying assumptions for a base case. How sensitive are your findings? You are assuming everyone starts saving at 22 and does so continuously until pension age and receives the national average earnings growth throughout that period.

Two main challenges to that are, firstly, people might have some career progression. Their earnings might rise quite quickly and then level off. Secondly, some people, most commonly women, will take a number of years out of the labour market. Have you done any sensitivity analysis of what those things do to your results?

Mr Hyams: I agree your comment about the investment assumptions being the reason for the different figures.

Regarding your second point, we felt these issues were too complicated for rules of thumb. We felt that having a benchmark, based on a very simple model, which determined the contribution rate to be paid on average throughout working life would be very useful. To deal with progression you determine at any point in time where you are relative to the target fund.

The only way to do a rule of thumb that we could think of was to come up with this very simple model which says you start off with a rate applicable to people following an average path. We know in reality that few will follow that path. There will be a lot of people, perhaps at young ages, who want to pay less and pay more later for various reasons like having families, or whatever. Also, people are going to go off track anyway because of variable investment returns.

Questioner from the audience: This is a question about implementation and next steps. Is the IFoA going to be adopting this and publishing it every quarter? The £525 will change over time. It might raise public awareness if the IFoA champion this kind of metric.

Mr Hyams: That may be one approach. The IFoA are thinking about how they might use this in some way.

Mr M. Murphy, F.I.A.: Having multiple metrics for benchmarks is not a problem. You have already mentioned two health ones. There are others from body mass index to calories per day to alcohol units per week. We all try to measure our lives with multiple metrics.

I applaud the fact that you have a benchmark around trying to catch up as well to help people with the problem of what they need to do today.

I have one particular comment about the way you present contributions. We tend to measure outgoings per month but think of wealth in annual salary. Explaining that contributions of £100 a month only produce an income or pension of £1800 a year might make it become a more shocking statistic for some who think a contribution of £100 or £200 a month is all right.

Mr L. P. Patel, F.I.A.: Have you done any work on consistency? There are various other models around, statutory money purchase illustration (SMPI) statements for example, and Money Advice Service, MAS, have their own model. People might compare and use different models.

Mr Hyams: That is an interesting point. There is a whole range of assumptions out there. We have tried to adopt a set of assumptions which we felt was appropriate for medium-risk average investors. I am conscious that they are not the same assumptions as other people are using. That is their prerogative. There is no right or wrong answer. We felt that our assumptions were reasonably within a range of assumptions that one would expect for a medium-risk investor.

Mr Squirrel: It is probably fair to say that we had regard to the set of assumptions out there when thinking about the assumptions we were putting together. We know the numbers fit within others but inevitably if you are making these kinds of calculations you are going to run the risk of confusion.

Mr Hyams: At the end of the day, nobody knows the answer. All our assumptions could be wrong.

You can view it as a matter of risk. If you have a set of assumptions that comes up with a low contribution rate, there is just more risk. We have already demonstrated that even with our assumptions, there is a big chance that people will not have enough if they save the £525.

Rather than enter into a discussion on assumptions, as they are all wrong, it is a matter of where you draw the line. We have tried to achieve a balance for a medium-risk investor. An important assumption is about average earnings going up faster than inflation, which we felt was important, as people's aspirations will grow in line with the economy while they are working.

Questioner from the audience: There might be some confusion when somebody receives their SMPI statement, for example, if it shows something quite different from what the rule of thumb is coming out with.

Mr Smith: We did look at a few sets of assumptions that are out there. I do not think that ours are out of kilter with the ones that are currently in use. Most providers these days have income modellers on their website where you can see what is likely to happen.

Mr Hyams: It is a good point that you are making about differences in assumptions. There is a danger that there would be confusion among people because one provider has a different set of assumptions to another. I am not saying that our assumptions are the best, but it could be that something like we have suggested might actually help to bring people together. Maybe not using our assumptions but some others which everyone can agree are reasonable. That is the ideal, really.

The Chairman: Given computing power is increasing so fast, do we need a rule of thumb when the government Gateway site, where you login to see your projected state pension, could have a personalised projection of exactly what you need?

Mr Smith: My initial comment on that is that people tend not to do much about pensions. I do not accurately know the latest statistics, but well over 90% of people are still in a default fund

because they have not bothered to do anything about it. There may be a parallel universe out there where pensions are really interesting and people would log on.

Logging onto the Gateway is a mission in itself. To imagine people will do that is unrealistic. We are conscious also that there are people who will go out and obtain professional advice. But, we are talking here about trying to steer people who cannot or will not pay for advice in the right direction.

Mr Squirrell: If anything, we want to encourage people to visit the Gateway. We are partly trying to create an environment where people will do that. Perhaps rules of thumb, which encourage people to discuss pensions, will help?

Mr Hyams: A very simple, independently branded, smartphone could also help. It might just get people engaged.

Miss Aaronson: It is also a generational thing because lots of people who are now members of DC schemes will have seen that their parents, or perhaps their grandparents, have been in final salary schemes where they are not too badly off.

The onus is now on younger people individually to understand DC schemes and make appropriate decisions. It will not be done for them. Do they understand risk? Do they understand investment? Do they understand money to start with?

You talk about empowerment, but it is also vital that people understand they need to do something.

Mr Hyams: As we touched on earlier, if employers can do their bit to help, that is all for the better.

Mr Smith: There is a role for government here as well as employers and as well as education.

When I worked for a large insurance company, I went round with one of the agents to see a self-employed person who had just stopped their pension contributions. We asked why he had stopped paying in. He said that we were charging £50 a month and another company had sold him one for £30 a month.

It is important to make it clear that you are not insuring your car here, you are saving for your pension. Both education and a rule of thumb could perhaps have helped that person.

We have been working on this for quite a while now. Part of today's session is to see what other people think. Have we been wasting our time? Are we nearly there? Are some of the things a good idea but not others? We would welcome feedback on that.

Mr A. McColl, F.I.A.: I started thinking that this sounded like quite a good idea. The rules of thumb sounded like quite a good concept. Personally, I thought that just one would be better and that it should be proportional rather than an absolute amount.

The concept should be tested with a wide range of people to see what they find helpful. One of the things that I consider is quite a big risk, and needs to be managed carefully, is we use the wrong rule of thumb. If we say £525, and it turns out to be £600, people will not contribute enough. We need to think about the risk that this is used incorrectly and perhaps not kept up to date.

Mr Hyams: As we indicated, the £525 is almost certainly not going to be the right amount, because nobody knows. How can you say how much you need to pay as a 22-year-old to retiring at 68? Nobody knows. We are not saying that, say, £525 is the right amount. We are saying that that is an indicative starting point for people to latch onto to give them a guide.

We are also saying that it is important to check as you go along as things will change. We are certainly not saying that this is the right amount, you can pay the £525 and forget about it.

It is quite clear people have to check. Hence, we have the benchmark sum which people can check.

Mr S. P. Rees, F.I.A.: We are in a profession which has been aware of this issue for quite a while. I imagine people here are self-selected and even more aware than average. We have a long way to go, as one of the contributors just explained previously.

People will think: "My parents seemed all right. And my grandparents seemed all right in their retirement. My employer has put me into this pension scheme so I will probably be all right."

Maybe we need to start off with a little bit of “Project Fear”. Perhaps we ought to use this same piece of work to start off saying: “Hey, 22-year-old, you are on national average earnings and you are in a minimum auto-enrolment pension, when you reach 68 this is your likely pension. Do you think that is enough to buy food and pay the bills? And, now I have your attention, here is my tool which will help empower you to do something about it.”

We have to create the awareness of the fact that there is a problem to solve before we can get everybody engaged in solving it.

Mr Hyams: Yes, indeed. The whole idea of the rule of thumb is to engage people so that they can then think about it.

The Chairman: I have the final word which is a quotation from George Box, who was a British statistician, that “all models are wrong but some are useful.”

Thank you, gentlemen, for what will be a very useful model. I should like to thank everybody for speaking and everybody for attending this session.