

The Director of Actuarial Policy
Financial Reporting Council
8th Floor,
125 London Wall
London
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31 May 2022

Dear Director,

We write in response to the Financial Reporting Council's consultation paper "Proposed revision to AS TM1: Statutory Money Purchase Illustrations" dated February 2022. At Club Vita we provide longevity analytics to support pension funds' risk management strategies and enable market innovation. Given our focus on longevity, we have limited our response to question 12 which relates to the choice of a mortality basis for determining annuity rates.

We have divided our response into three parts. The first part discusses the appropriateness of the choice of assumptions for a "typical" saver. The second part highlights the wide gap in life expectancies between different pension scheme members and discusses the potential negative implications of a one-size-fits all approach. In the third part we provide brief comments on the choice of improvement table.

Based on our benchmarking, the PFA16 and PMA16 tables represent too light a mortality base table for a typical pensioner. Further, we see a wide range of mortality rates seen amongst pension scheme members. This means a one-size fits all approach can give a materially misleading estimate of retirement income at both ends of the socioeconomic spectrum. We believe it is important to either reflect the specific circumstances of an individual in the choice of assumption, or to provide further guidance on the potential range of outcomes to retirement savers to enable them to make the right choices.

We would be more than happy to discuss the content of this letter or the accompanying paper in further detail.

Yours sincerely

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For and on behalf of Club Vita (UK) LLP

CLUB VITA (UK) LLP

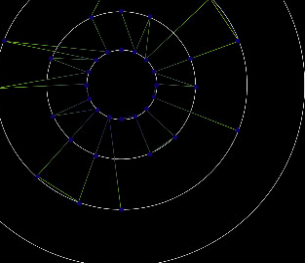
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What is Club Vita?

Club Vita is an industry wide data utility, used to understand the life expectancy of pensioners in the Defined Benefit (“DB”) pension markets of the UK, USA and Canada. Our UK analytics are based on a dataset of 3 million UK DB pensioners (1 in 7 of all pensioners in the UK). We deliver longevity analytics and reporting that supports assumption setting, pricing, valuation, capital and risk management strategies for pension scheme liabilities. This sees us regularly interact with insurers and reinsurers as well as hundreds of pension schemes and their advisors from across the Employee Benefits Consultancy market on a wide range of matters relating to pensioner mortality, longevity and demographic risks. Our UK pension scheme subscribers include both local government and private sector pension schemes, ranging from multi-billion-pound funds right down to very small schemes. The Club Vita dataset includes pensioners from all major UK industries and the entire UK geography.

Club Vita's response to Proposed revision to AS TM1: Statutory Money Purchase Illustrations

Given our focus on longevity, we have limited our response to question 12 which relates to the choice of a mortality basis for determining annuity rates.

QUESTION 12:

What are your views on the proposed new mortality basis for determining the annuity rates where the illustration date is more than 2 years from the retirement date?

The mortality basis consists of a base mortality (proposed to be the "16" series of tables) measuring recent mortality rates, and an assumption of how to project these into the future to reflect changes over time. For the projection element ("mortality improvements") it is proposed to use the core CMI model with a long-term rate of 1.25%.

Our response to your question our split into three parts:

- 1 The appropriateness of the choice of the "16 series"
- 2 The implication of a single table for all individuals receiving illustrations
- 3 Comments on the choice of improvement assumptions

Throughout we refer to Statutory Money Purchase Illustrations as SMPIs for brevity.

1 Use of the "16" series of tables

1.1 Clarity on which "16 series" tables

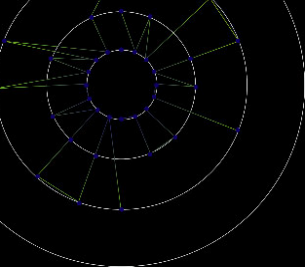
The 16 series includes 20 tables in total, covering individual and buyout annuities, with individual annuities further split between internally and externally vested. In contrast, the 08 series contained only four tables in relation to pension annuities in payment, split between men and women and between amounts weighted and lives weighted tables. The consultation does not explicitly state that the tables PFA16 and PMA16 are proposed for use, although this seems to be the implication of paragraphs 4.18 and 4.19.

In the analysis that follows, we have assumed that the use of the PFA16 and PMA16 tables is intended. It would be useful to see this explicitly stated, together with a rationale for the choice of these tables (both within the 16 series, and across the wider set of potential standard tables produced by the CMI).

1.2 How representative are the PFA16 and PMA16 tables of people receiving illustrations?

Historically, only a subset of the working population will have saved for retirement in a way that gave rise to an annuity, and so formed part of the population underpinning the "16 series" of tables. It has generally been accepted that a typical individual annuitant has a higher life expectancy than a typical defined benefit scheme member.

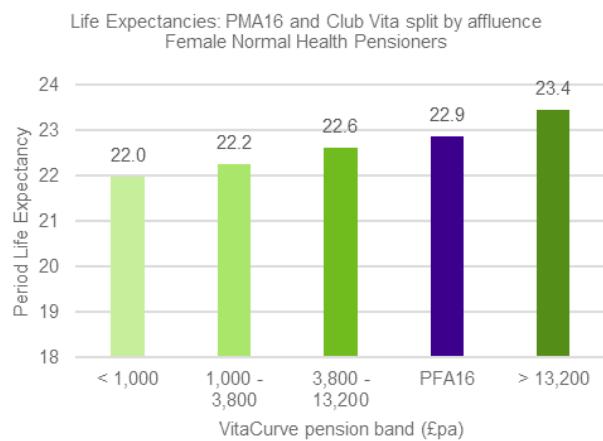
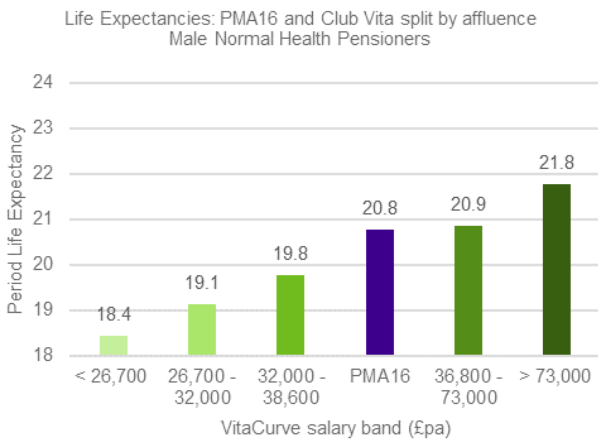
However, given the greatly increased proportion of individuals belonging to defined contribution ("DC") schemes as a result of defined benefit scheme closure and then auto-enrolment, we might in the future expect that a typical DC retiree will look similar to a typical defined benefit ("DB") pensioner. It is therefore instructive to compare the



life expectancies generated by PFA16 and PMA16 with those seen amongst defined benefit pension scheme pensioners, especially when the illustrations are appearing alongside DB pensions as part of the pensions dashboard.

We have done this comparison using Club Vita’s “VitaCurves” – a set of mortality tables calibrated to data we have collected, and which covers around 1 in 4 of all UK DB pensioners. Our mortality tables range from overall tables for men and women, to tables which allow for detailed characteristics of an individual including retirement health, affluence (pension income or salary prior to retirement), lifestyle (as proxied by postcode level information) and occupation.

The charts below show how period life expectancy from age 65 under the PFA16 and PMA16 tables compares with a subset of Club Vita’s 2021 edition of VitaCurves. We have used our normal health retiree VitaCurves to reflect the fact that individuals reaching retirement age are likely to be in reasonable health, whereas those in ill-health will often retire early and be eligible for enhanced annuity rates. Illustrating the life expectancy differences by affluence group helps assess if the PFA16 and PMA16 tables broadly align to a “typical” recipient of SMPI/pensions dashboard illustrations.

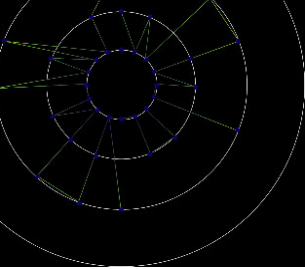


CV21 curves apply at 1 January 2018. To ensure comparability with the 16 series they have been rolled back to 1 July 2016 using Core CMI_2019. Final salary and pension bands are revalued in line with RPI and are defined in 1 July 2019 terms. Salary is Club Vita’s preferred affluence measure for male pensioners, pension for female pensioners.

We observe that:

- The life expectancy associated with PMA16 at a similar level to that for pensioners with final salaries of between £36,000 and £73,000 pa.
- The median gross annual earnings in the UK for men (in 2019, the as at date of the inflation adjusted salary amounts used in the VitaCurves shown above) was around £33,000 pa¹.

¹See <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/ashe1997to2015selectedestimates>. Note that this is across all ages, whereas the Vita salaries will tend to represent salaries towards end of the working lifetime so this may underestimate the gap – there is also significant regional variation in average salaries.



- If we assume that individuals in DB and DC arrangements with similar salary levels have similar life expectancies, this means the use of the “16 series” could overstate a typical pensioner’s life expectancy by the order of a year (the median salary falling in the group with a life expectancy of 19.8, compared with 20.8 for PMA16).

This could lead to an underestimate of potential retirement income for a typical male pensioner of the order of 5%.

- We see a similar feature among female pensioners. The life expectancy associated with PFA16 is towards the top end of life expectancies observed in Club Vita. The median pension amount for female normal health pensioners is around £3,000 pa, leading to an overstatement in life expectancy terms of around 0.7 years

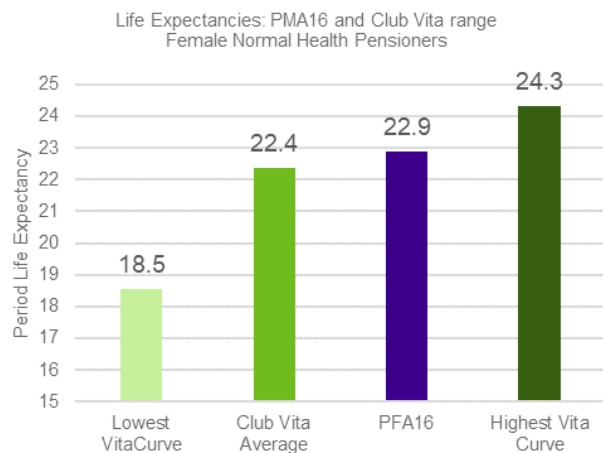
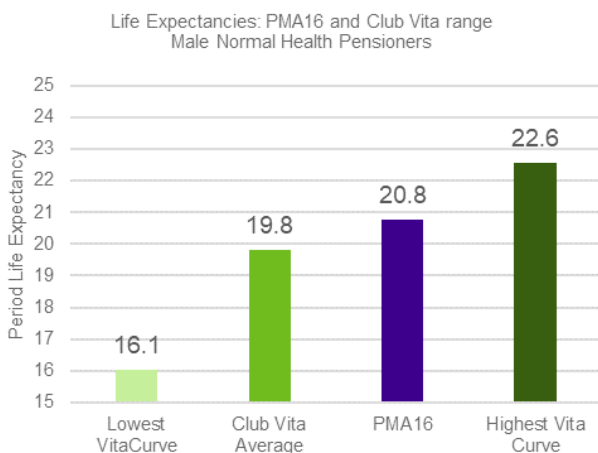
This could lead to an overstatement of potential retirement income for a typical female pensioner of the order of 3%.

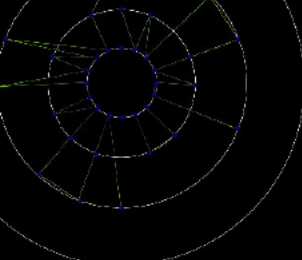
We therefore question whether the PMA16 and PFA16 tables are a suitable choice to estimate the baseline mortality of a typical pension scheme member. The FRC may therefore wish to consider adopting an alternative, heavier, base table which better reflects the life expectancy of a typical pension scheme member who will be receiving SMPI or pensions dashboard illustrations.

However, we would stress the **variation** in life expectancies across socio-economic backgrounds within the pensions savers likely to be receiving illustrations, **which is starker, and more material**. This is highlighted for men in the chart above, and both charts would show a much starker variation in life expectancy if we were to look across the full spectrum of individuals in our dataset. We discuss the implications of overstating (as well as understating) the annuity rate for pension savers in the following section.

2 Implications of a “one-size-fits-all” approach

We have already shown the wide range of life expectancies associated with different affluence levels amongst DB pensioners. If we also allow for postcode as a proxy for lifestyle factors, we see an even larger range. The charts below show the life expectancy gap at age 65 amongst male and female normal health pensioners once we allow for both affluence and lifestyle.





In the table below, we calculate single life annuity rates for an individual who retired at age 65 during 2021 (for consistency with our Target Income examples, see below) using the proposed approach described in the consultation and compare these with those calculated using our Club Vita benchmark base tables.

Group	SMPI Annuity Rate (PXA16)	Estimated Annuity (VitaCurves)
Lowest Life Expectancy	20.5	16.8
Typical Life Expectancy		19.9
Highest Life Expectancy		21.8

Discount rates based on gilt yield curve at 15 February 2021. Mortality improvements based on CMI_2019 [1.25%]. Calculation date is 6 April 2021. Annuities are monthly in advance and calculated as the unweighted average of the male and female annuity rates.

In order to illustrate the potential impact of a misestimate of mortality for individuals from different socio-economic backgrounds, we have considered the PLSA's Retirement Living Standards² for 2021 to estimate a reasonable target pension for our three groups. We will assume that:

- our lowest life expectancy individual has low income and as such is targeting achieving what the PLSA suggest is the minimum income for a single person pensioner (£10,900 pa)
- our typical member is targeting the PLSA's definition of moderate income for a single pensioner (£20,800 pa); and
- our highest life expectancy member is targeting the PLA's comfortable income (£33,600 pa).

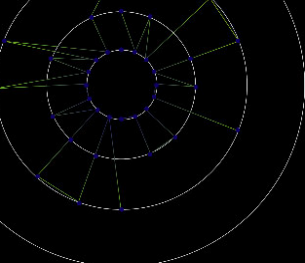
In each case we deduct from this state pension of £9,339 pa (i.e., we assume full entitlement).

We will then assume that each saver has achieved the correct level of pot to meet their requirements based on their SMPI illustration and compare this with what they might be able to purchase in the open market. In doing so we have assumed that insurers writing annuity business will employ similar techniques to those employed by Club Vita to set annuity rates. Annuity writers will typically use factors such as postcode and pot size (as well as information about an individual's health) to calculate annuity rates³.

Group	Target Income	Pot Requirement SMPI	Pot Requirement Actual	Surplus / Shortfall
Lowest Life Expectancy	£1,561 pa	£32.0k	£26.2k	+£5.8k (+22%)
Typical Life Expectancy	£11,461 pa	£235.1k	£228.4k	+£6.7k (+3%)
Highest Life Expectancy	£24,261 pa	£497.6k	£528.6k	-£31.0k (-6%)

² See <https://www.retirementlivingstandards.org.uk/details>. We have used the figures for outside of London. Note that other organisations e.g. Joseph Rowntree Foundation suggest alternative levels of minimum income. We have used the PLSA figures as they provide a helpful indication of moderate and comfortable incomes as well as the minimum.

³ For consistency with the EU Gender Directive, annuity pricing rules and the pot requirement under SMPI our annuity rates are all unisex.



2.1 Implications for the lower income parts of society

For those at the lowest end of the life expectancy spectrum, the SMPI illustration would (all other things being equal) estimate a required pot size at retirement which is 22% higher than what might be needed in practice, or for purposes of SMPI pensions illustrations and the pension dashboard, **under-estimate** the pension income which our lower life expectancy individual has already successfully saved for. Whilst this might present some good news of a “windfall” at retirement, **using a best estimate of their life expectancy would set a lower, more realistic target which may help encourage adequate retirement saving**, and perhaps reduce the risk of opting out.

2.2 Implications for a typical saver

A similar situation, although less extreme, applies for a typical saver. Based on our analysis, using the PMA16 and PFA16 tables could overstate the required pot size by around 3%, consistent with the general issue with the “16 series” of tables identified in section 1.

2.3 Implications for our higher life expectancy individual

At the other end of the spectrum, those with highest life expectancy could see their pot size fall 6% short of their target retirement income, a shortfall of around £30k.

2.4 How to address this issue

We appreciate that the differences in annuity incomes highlighted here are relatively modest in the context of the uncertainty in investment returns facing many younger pension savers. However, as individuals approach retirement and consider what in practice can be obtained from their retirement savings, it is too late to make good any shortfall.

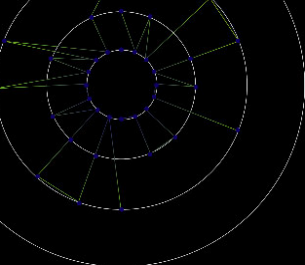
We accept that setting different mortality assumptions for different types of retirement saver could be logistically challenging, particularly under the Pension Dashboard initiative. The main challenge here would be consistently obtaining the necessary data for to enable the calculation. The most accurate estimate of life expectancy would require information on both affluence (based on salary or perhaps aggregate pot size) and a proxy to lifestyle. In practice, annuity writers would often also ask for health information and reflect this in their pricing.

For SMPI outside of the Pensions Dashboard e.g., annual statements it may be preferable to show retirement income under a range of possible annuity assumptions (low and high life expectancy as well as typical). However, in order to be useful, this would need to be accompanied by guidance to help the user assess where in the range they lie. It would also seem odd to highlight a range for life expectancy and not other key (and potentially more material) uncertainties underpinning the SMPIS.

An alternative approach, akin to what several financial advisory firms offer, is to ask the user to “self-rate” as low, average or high income and low, average or high healthiness (including lifestyle). This could enable the individual to be placed on one of a small number of pre-defined tables to provide a more realistic best estimate assumption.

3 Comments on improvement assumption

Adopting the latest core CMI model is a reasonable approach. Our impression is that a long-term rate of 1.25% pa is low compared with that adopted by insurers in the annuity market, with 1.5% pa being a more typical assumption. Adopting a higher long-term rate will tend to increase projected life expectancy. To provide a sense of materiality, this difference equates to:



- 0.4 years higher life expectancy from age 65 for someone aged 50 today (around 1.5% on annuity rates)
- 0.7 years higher life expectancy from age 65 for someone aged 30 today (around 2.5% on annuity rates)

As such this will lead to a **systematic over-statement** of the Expected Retirement Income for a given level of pension pot, and so could lead to a systematic bias to under saving for retirement.

We note that this potential understatement can serve to offset any overstatement for a typical pensioner in relation to baseline mortality. Given its low materiality in the context of other uncertainties inherent in DC saving we would only suggest amending this part of the assumption as part of a more comprehensive review of the overall basis.

Reliances and limitations

This paper is intended for the addressee and the wider consultation team only and is intended to provide information that may be relevant to the proposed revision to AS TM1: Statutory Money Purchase Illustrations. It should not be used for any other purpose. It should not be released or otherwise disclosed to any third party except as required by law or with our prior written consent, in which case it should be released in its entirety. Neither the authors nor Club Vita (UK) LLP accept any liability to any party unless we have expressly accepted such liability in writing.

For the avoidance of doubt, the analysis included in this paper does not constitute actuarial advice but rather a set of information to support our comments in relation to the consultation. Where we have shared analysis produced by Club Vita this analysis has been generated in accordance with the principles of Technical Actuarial Standard 100.