Response to
State Pension Age Independent Review

CLUB VITA

Where and how to set State Pension age (SPa) is a significant issue in social policy. Club Vita is delighted to respond to the Interim Report of the Independent Review of State Pension age. We collect and analyse longevity data from over 200 UK defined benefit workplace pension schemes.

In aggregate our data covers 1 in 7 of the UK pensioner population. More importantly, its back-history reveals trends, the range of longevity predictors captured is insightful in understanding variations in longevity (in particular earnings at retirement and postcode) and the high data quality increases confidence for decision-makers. Annex A contains an introduction to Club Vita.

Our primary role is to aid the pension schemes who contribute their longevity data to Club Vita in understanding and managing their longevity risk. Within this role we have been at the leading edge of identifying socio-economic differences in longevity and the trends therein. We are responding to the Independent Review's consultation in our capacity as experts in longevity. Our response reflects the personal opinions of the research team within Club Vita, and should not be construed as reflecting the opinions of the pension schemes contributing data to Club Vita.

Key comments

1   State Pension is social insurance

The State Pension is a form of social insurance. The current system pools that risk across the UK society. However, in current times of considerable variation in both health and longevity outcomes the universality of SPa should be revisited.

If inequalities persist, or indeed widen, a system of variable SPa may deliver fairer outcomes.

If, however, the recent narrowing of the gap in life expectancy seen between different socio-economic groups continues, then retaining a universal SPa is preferable.

2   Varying SPa by socio-economics is viable

Varying by region is not a viable solution, however other methods of directly capturing variations in longevity offer potential to move away from a universal SPa and result in variations between regions in terms of *average* SPa.

Club Vita data highlights how earnings capture a considerable amount of the longevity spread seen at age 65. Earnings are already captured in the national insurance system; one possibility is a SPa system based on career earnings could be designed e.g. with a lower SPa for 'low' earners.

3   Health matters

We suggest that the independent review focusses less on life expectancy and more on healthy life expectancy. For example, re-expressing the DWP formula in terms of how much of health adult lifetime it is affordable to spend in receipt of State Pension and monitoring this at successive reviews.

4   Measure life expectancy objectively

The use of cohort life expectancies makes the DWP formulaic linking of SPa to longevity very sensitive to changes in mortality rates over the long term i.e. 50-100 years hence. We encourage greater emphasis to be given to observed increases in period life expectancy which can be objectively measured.

5   Be realistic on the reliability of long term projections

To be responsible and fair to younger generations, stating a precise SPa should be avoided. Language like 'we anticipate your SPa will be between 67 and 72' would set more realistic expectations amongst younger workers.

Background

SPa (gender variations, recent equalisation and legislated future increases aside) has remained at 65 since 1926. During this time projections of longevity have markedly increased, by considerably more than legislated future rises to SPa, and individuals are routinely living to SPa[1]. Naturally the State Pension system has come under scrutiny, and the sustainability of State Pension age in particular.

We are delighted to provide specific responses to the questions you pose on the interaction between longevity and SPa. Our comments focus on your life expectancy and fairness themes.

Our response is structured around four key themes:

1. Variations in longevity
2. Life expectancy or healthy life expectancy?
3. Uncertainty in longevity projections
4. Affordable and fair outcomes

Within each theme we provide some background to our views, including the relevant supporting evidence from Club Vita; we also address the relevant questions posed your Interim Report (specifically, your questions 10, 11, 12, 13 and 22).
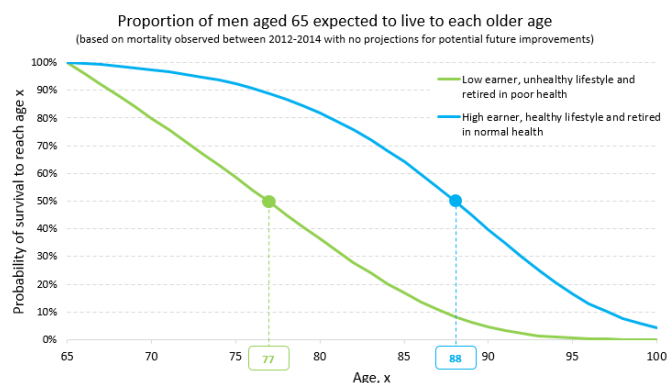
1 Variations in longevity

Your Interim Report highlighted the considerable variation in average life expectancy across the UK. We see similar disparities in life expectancy within Club Vita. However, we believe the variations are subtler than large geographical areas.

Whilst differences exist between regions, differences within geographical regions are just as large, and are driven by individual characteristics such as health, income and lifestyle. To the extent to which the mix of individuals varies by location so the aggregate statistics for that region differ. Regional indicators are therefore a blunt tool, and an inappropriate basis on which to set SPa.

Health, Income and Lifestyle

Club Vita is able to attribute an 11 year spread in life expectancy from age 65 depending on, for men, factors such as retirement health, income and lifestyle. This is illustrated in Figure 1a which shows the proportion of 65 year old men expected to survive to each subsequent age, starting from opposite ends of the health, lifestyle and wealth spectrum.

At one extreme half of men can expect to live and receive State Pension for over 23 years (34% of "adult life"); at the other extreme half of men can expect to live for less than 12 years (i.e. just 21% of "adult life")[2].

Our statistical analysis is able to attribute this spread of 11 years in life expectancy between socio-economic characteristics:

Changing circumstance (in isolation)	Impact on life expectancy
Healthy lifestyle rather than unhealthy lifestyle	+4¾ years
High earner rather than low earner	+4 years
Retiring in 'normal' rather than 'ill health'	+2¼ years

Note: Our analysis uses salary at retirement or earlier exit from the pension scheme as a measure of income wealth. The lifestyle indicator is based upon the individual's full postcode, a third party lifestyle profiling systems and a proprietary grouping of postcodes based upon mortality outcomes. Retirement in 'ill health' indicates a health condition enabling early retirement on an enhanced pension, but this can range in severity from unable to do primary job to terminally ill.

Figure 1a:

Proportion of men aged 65 expected to live to each older age
(based on mortality observed between 2012-2014 with no projections for potential future improvements)

Low earner, unhealthy lifestyle and retired in poor health

High earner, healthy lifestyle and retired in normal health

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[1] To the extent that that the DWP formulaic link to increasing life expectancy completely ignores the possibility of death prior to SPa.

[2] In each case these are period measures of life expectancy (LE), i.e. prior to any allowance for future reductions in mortality. Proportion of "adult life" as per DWP formula assuming SPA of 65 and these LEs.

When looking at the above table it is important to note that those with the higher incomes also tend to have, on average, the healthier lifestyle, and so a considerable amount of the overall variation in longevity can be captured by an individual's earnings. This offers an objective means of moving away from universal SPa since it avoids the issues with regional / postcode based SPa (a point we return to below).
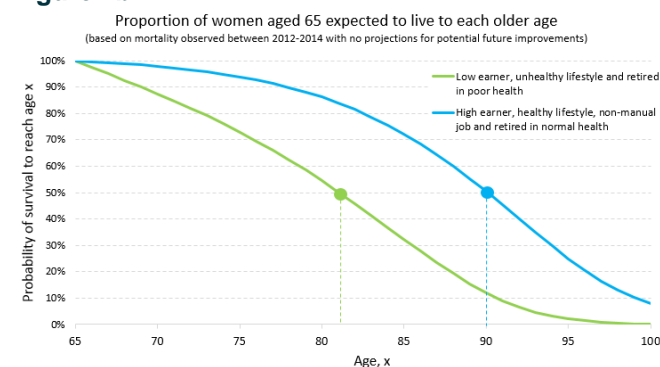
We have considered whether regional differences remain after allowing for lifestyle and earnings. We find that broad geographical areas (such as Government Office Regions), or a rural/urban indicator, perform worse than using actual earnings and micro-areas (based on lifestyle and other socio-demographics derived from postcode). This suggests that the most material regional variations in mortality (statistically speaking) are captured by health, wealth and lifestyle. Further, a SPa system structured around earnings would perform better in supporting individual's needs in retirement than one based on variations between large regions. Of course, the variations between large regions (in terms of earnings and so average SPa) would still emerge from such a system.

However, in the context of SPa one important regional variation in longevity may remain. Specifically, in areas of high deprivation there may be a 'regional gradient'. If you live in an area of high deprivation, then our data suggests that it matters where in the UK that it is – with markedly lower life expectancies in Scotland than in the South East and South West of England. In contrast if you live in an area of low deprivation it does not matter where in the UK this is. In both cases this is after controlling for individual socio-demographics (via salary prior to retirement and occupation). This is explored further in Howse et al (2011). Whilst part of the difference may be down to lifestyle choices, there may also be some important cultural differences across the UK and impacts of post-industrial decline (see for example GCPH (2012))

What about women?

For women we observe slightly less variation in life expectancy (see Figure 1b). Our shortest lived group is those who retired in ill health, with low income and unhealthy lifestyle; only half of these women will live for more than 16 years (on a 'period' basis). In contrast half of those retiring in normal health with higher income, healthier lifestyles and from non-manual occupations will live for more than 25 years.

Figure 1b:

Proportion of women aged 65 expected to live to each older age
(based on mortality observed between 2012-2014 with no projections for potential future improvements)

NB: When comparing the current generation of women in retirement, we find that – in general - their income history is less important than their occupation history or their (postcode-based) lifestyle propensities. We suspect this is a generational effect, reflecting that for women currently in their 70s and 80s household circumstance may be more important to their health outcomes than their individual incomes. If this is the case then the relevance of personal income history in predicting longevity outcomes for women is liable to increase over the time horizon of interest to the Independent Review.

Is the socio-economic gap starting to narrow?

So far we have highlighted the level of variation seen in life expectancy. This has all been on a 'period' basis i.e. reflecting the mortality rates being observed currently, with no allowance for how these may change in future years.

The SPa review thus far has focussed more on life expectancy on a cohort basis i.e. how long will each generation of state pensioners live for, on average, allowing for future changes in mortality rates. Therefore a key question in considering current variations in longevity is: How likely are these variations to persist? For example, if the gap is liable to persist or even grow, then the argument for moving away from universality of SPa on grounds of fairness will be stronger. Similarly, if the gap is narrowing then it may be appropriate to retain the universality principle.

At the national level the life expectancy gap in the early 2000s was wider than it was in the 1980s, albeit with a hint that it might be starting to narrow again as we entered the 2000s (Figure 2). However, changes to socio-economic measures used by the Office for National Statistics (ONS) mean that it is not possible to continue this chart to capture more recent trends.

Figure 2:
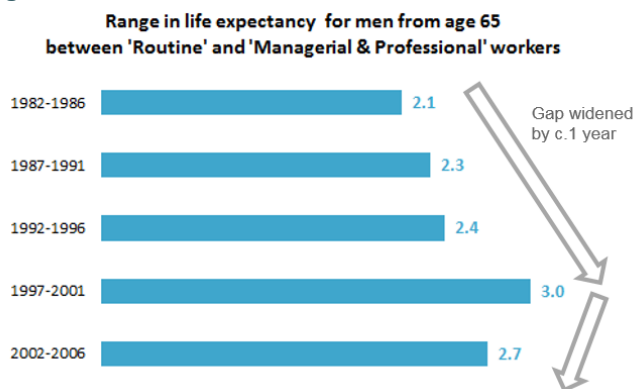
Source: Club Vita analysis of ONS data.

In contrast within the Club Vita data we are able to look back using consistent measures of socio-economics to 2000 and earlier. Importantly, this enables us to consider whether the life expectancy gap is now starting to narrow.

When looking at trends over time it is necessary to look at slightly broader socio-demographic groups than we considered when looking at variations in today's (period) life expectancy to see the 'wood for the trees'.   We have identified three socio-demographic groups for men and two for women who are experiencing strong differences in longevity trends (see Club Vita (2014)) for details. These groups are split by pension income and deprivation of the area in which an individual lives for men, and the deprivation of the area in which an individual lives for women. The rules for allocating individual pensioners to each of these "VitaSegments" are set out in Figure 3.

Emerging trends within Club Vita

As figures 4a and 4b reveal, all VitaSegments show sharp increases since 2000 amongst today's pensioners – the gains in life expectancy range from 3.1 years for hard-pressed men to 1.9 years for making-do/comfortable women.   The pace of change over these 14 years is more rapid than the three year rise in state pension age legislated to happen over the 28 years from 2018 to 2046. The SPa was already playing catch up, but the recent data suggests that pensioners are pulling further ahead, implying more support from younger generations of taxpayers for today's pensioners. This is bad news for inter-generational fairness.

There is some good news on the intra-generational fairness front. Our VitaSegments groups show a clear narrowing of the longevity gap from – from 3.6 years to 3 years between the 'comfortable' and 'hard-pressed' men and from 2.1 years to 1.7 years between the two groups for women.   Without this convergence the longevity gaps revealed in figures 1a and 1b would have been larger.

Since we first highlighted this result we have noted other research has reached similar conclusions. For example The King's Fund (2015) highlighted how the gap in life expectancy between the most and least deprived English Middle layer Super Output Areas[3] has narrowed in recent years. This is an important corroborative result in the context of State Pension age as it shows that the narrowing may also apply beyond those in defined benefit pension schemes to the wider population and those who

Figure 3: 'VitaSegments'

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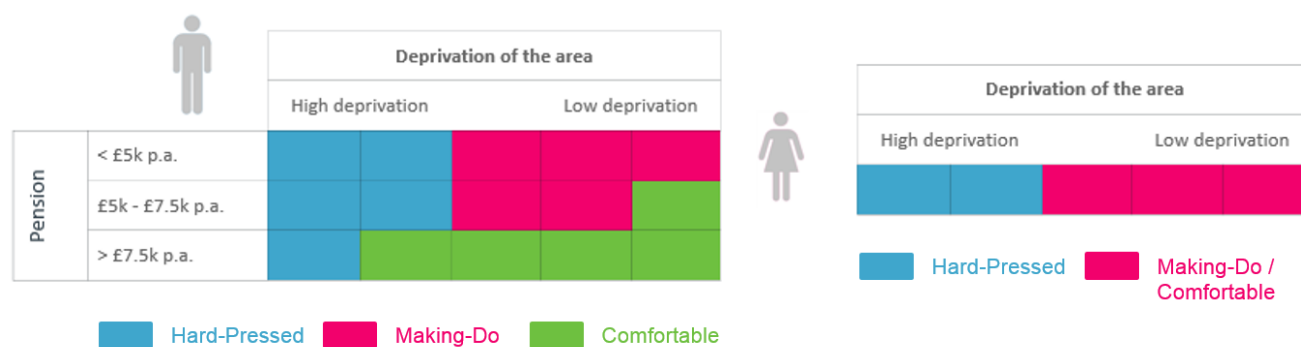
[3] A level of geography used by the Office for National Statistics with populations on average around 7,200 but variable between MSOAs

Figure 4a:

Life expectancy of men aged 65
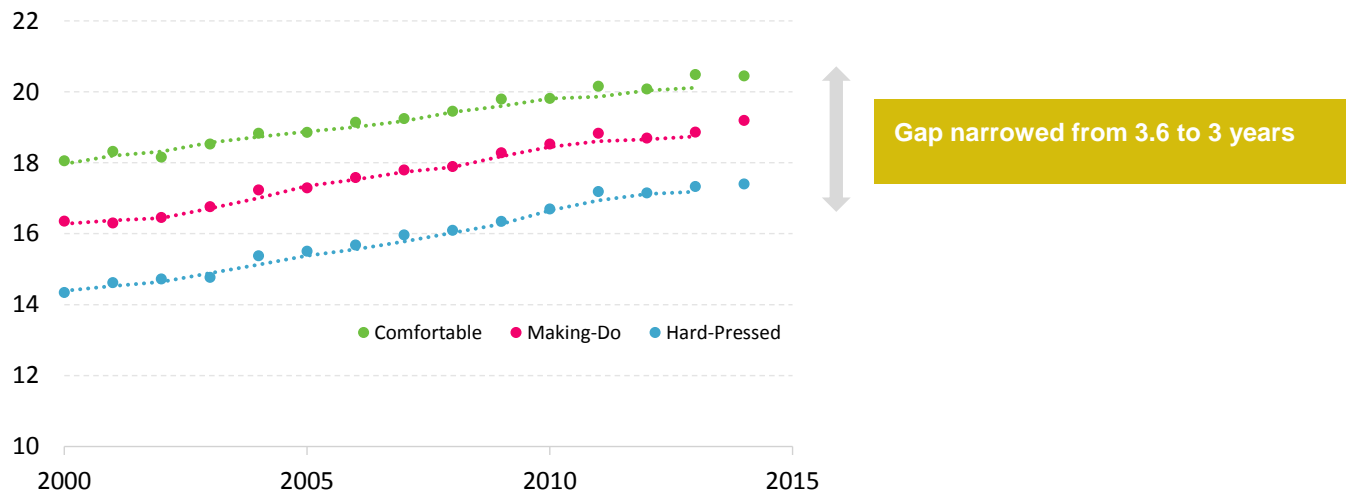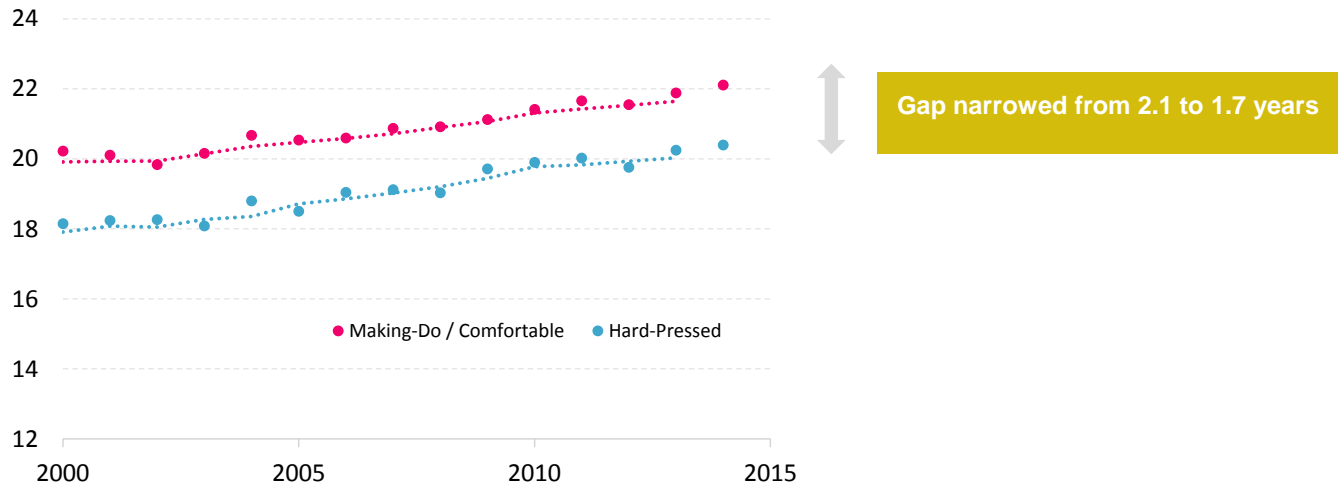### (period basis, dashed line 3 year average)

Gap narrowed from 3.6 to 3 years

Figure 4b:

Life expectancy of women aged 65
(period basis, dashed line 3 year average)

Gap narrowed from 2.1 to 1.7 years

Technical note: Dots in figures 4a and 4b are based upon 'crude' life expectancies i.e. observed mortality rates for the year in question up to age 95 and an extrapolation for mortality above age 95 based upon fitting a Gompertz curve to the observed data. Dashed lines are life expectancies based upon fitting a Gompertz curve to a three year average of mortality rates, centred on that calendar year (e.g. 2009-2011 for the point plotted against 2010). Historical numbers differ slightly to those presented in NAPF (2014) and Club Vita (2014) owing to differences in smoothing, using the very latest Club Vita data, and slight differences in underlying approach to assessing mortality rates. However, the conclusion of a narrowing gap still holds.

are most reliant on State Pension. (We are aware anecdotally that there may be evidence that those with the very least resources and so most reliant on State Pension may have seen life expectancy stagnate and would encourage the Independent Review to look into this point.)

The reasons for this narrowing in socio-economic gap remain an active area of research within Club Vita. For instance part of the narrowing may be due to the focussed efforts of government to narrow health inequalities with the Spearhead local authorities since the early 2000s. However, it would be relatively surprising if this had had such a rapid impact in life expectancy at age 65. Our current belief is that there is a socio-economic health cascade at play. Health information tends to cascade

through societal groups, starting with the early adopters and then gradually being adopted by family and friends and extended social networks – and so in turn by other social groups – as the benefits become apparent. For example 'Joe stopped smoking and he has stopped coughing…' The early adopters tend to be the most educated, who are likely (on average) to be our comfortable group. We believe the narrowing of the gap seen since 2000 between the comfortable and the hard-pressed may therefore be the consequence of the information on the benefits of smoking cessation 'cascading' – with the health (and so longevity) benefits of the more recent cessation amongst the hard-pressed now emerging.

Consultation question #11: Do you think that regional factors have an impact on Life Expectancy and how? How should the Government factor in the combination of regional and socio-economic factors?

We believe that regional factors influence longevity through differences in the make-up of the local population. It seems reasonable that this is linked to the affluence, health and lifestyle choices of individuals living in those areas – within the Club Vita dataset we see marked differences. However, there is also evidence of a regional aspect to the impact of deprivation on longevity, over and above that explicable by affluence and lifestyle alone.

To be successful, any allowance for regional and socio-economic factors needs to meet three criteria:

(1) **Reflect individual circumstance:** Capture aspects relating to the individual rather than the broad heterogeneity between (large) regions

(2) **Avoid 'selection' risk:** Avoid risk that individuals can change to a lower State Pension age at will (e.g. via moving to an advantageous postcode)

(3) **Be practical to implement:** Individuals tend to move around the point of retirement – what happens if they move to an area with higher SPa?

Regional, or postcode-based, State Pension ages struggle to meet these criteria. However, as outlined in our section on Fair and Affordable Outcomes we believe that it is possible and practical to move away from a universal SPa to systems which capture socio-economic variations either directly (for example via career earnings) or indirectly (via requirement on number of credited years). These mechanisms would result in the *average* SPa varying between regions.

Whether it is appropriate to move away from universality though is a more fundamental question. We would argue that this depends on whether the government believes it can address inequalities in longevity – and more importantly health – across socio-economic groups over the course of the next 20 years (i.e. the timeline over which revised SPa as a consequence of the review might reasonably start to take effect). So if:

Health inequalities are addressed: If the policy conviction is to address inequalities – or the trends seen in the Club Vita data over recent years persist - then it may be appropriate to retain the universality principle.

Health inequalities persist: If health inequalities persist (or worse widen) then there will be continued (or growing) resentment of a universal SPa. Acknowledging this via a system with SPa varying with socio-economics should be perceived as fairer. The system could return to a universal State Pension age in the future if health policies are successful in narrowing inequalities.

To this end we believe the primary debate should be around the will and the ability to close social inequalities in health. Improved health outcomes, particularly for the less advantaged socio-economic groups will reduce health costs (potentially making State Pension affordable from a younger age than would otherwise be the case), make an increased State Pension age more practical to these groups and reduce the risk of State Pension outgo being substituted for other welfare benefits. We explore the importance of health outcomes in the next section.

2 Life expectancy or healthy life expectancy?

Changing health behaviours is notoriously hard.

Life expectancy has risen significantly since the introduction of the NHS. However, inequalities in lifespan widened in the first decades following its introduction leading the Black Report to question its success as a health intervention (see e.g. Townsend et al (1986) and Bartley (2004)). The widening of the gap in health outcomes and life expectancies observed in the Black report may have been conflated with socio-economic differences in smoking cessation working to widen the gap. It is heartening therefore to see evidence now emerging of the life expectancy gap narrowing. However, it will need to continue to narrow if a universal SPa is to be widely regarded as fair.

Consultation question #12: Are Healthy Life Expectancy and Life Expectancy improving sufficiently for the majority of the population? Are there specific aspects of Healthy Life Expectancy that would directly interact with State Pension age and how?

Healthy Life Expectancy (HLE) is improving slower than Life Expectancy. For example Harper et al (2011) highlight how around 60% of increases in overall life expectancy at age 65 (in Great Britain) are disability free years, and around 70% 'healthy' years. A growing gap suggests an increased period of impairment at the end of life, and so potentially poor quality of life. It also limits the pace at which SPa can reasonably be increased

In this regard we would argue that Healthy Life Expectancy is not improving sufficiently – since the gap between Healthy Life Expectancy and Life Expectancy would preferably be narrowing not widening. A narrowing gap would also mean improved health later in life, reducing health and welfare costs and an enabler for fuller working lives / working longer. Reducing other welfare costs reduces the affordability strain of State Pension, whilst improved health at older age should serve to reduce concerns on the fairness of raising SPa. We therefore believe government policy would be better placed focussing on improvements in healthy life expectancy rather than life expectancy – if improvements in healthy life expectancy lead to improvements in life expectancy then this should be viewed as a benefit, rather than the primary motivation.

Consultation question #13: The Pensions Commission suggested that lower Life Expectancy should be tackled through improvements to health and occupational health. Do you agree? How should we take into account the Life Expectancy and Healthy Life Expectancy information when considering State Pension age?

Lower life expectancy for certain parts of society are likely to be due to a variety of factors including health and lifestyle choices, income and education. However, overcoming inertia and cultural differences to improve health is a considerable challenge. Initiatives like the Spearhead local authorities have had mixed success.

Whilst it would be a positive social outcome to achieve greater equality in health outcomes, it is important to realise that this may take many generations to achieve. In the meantime considerable inequality may persist in life expectancy, albeit we are encouraged by the recent narrowing of the socio-economic gap seen within the Club Vita data.

Whatever the outcome on SPa, the independent reviews should monitor healthy life expectancy. When healthy life expectancy is increasing slower than the proposed pace of increase in SPa then it will be challenging to increase SPa without simply redistributing costs between the pre and post SPa welfare benefits (and thus failing to address affordability).

With this in mind we believe far greater focus should be placed on healthy life expectancy. We believe the DWP formulaic approach would be better expressed as receiving State Pension for up to 1 year in every 4 of healthy life expectancy. This is currently equivalent to the existing formula of receiving State Pension for at most 1 year in every 3 of adult life expectancy, but shifts the emphasis to healthy life expectancy.

For such an approach to work though, improved measurements of healthy life expectancy (and projections thereof) are required. Currently healthy life expectancy measures rely on 'self-assessment' of health and are based on a relatively small subset of the UK population.
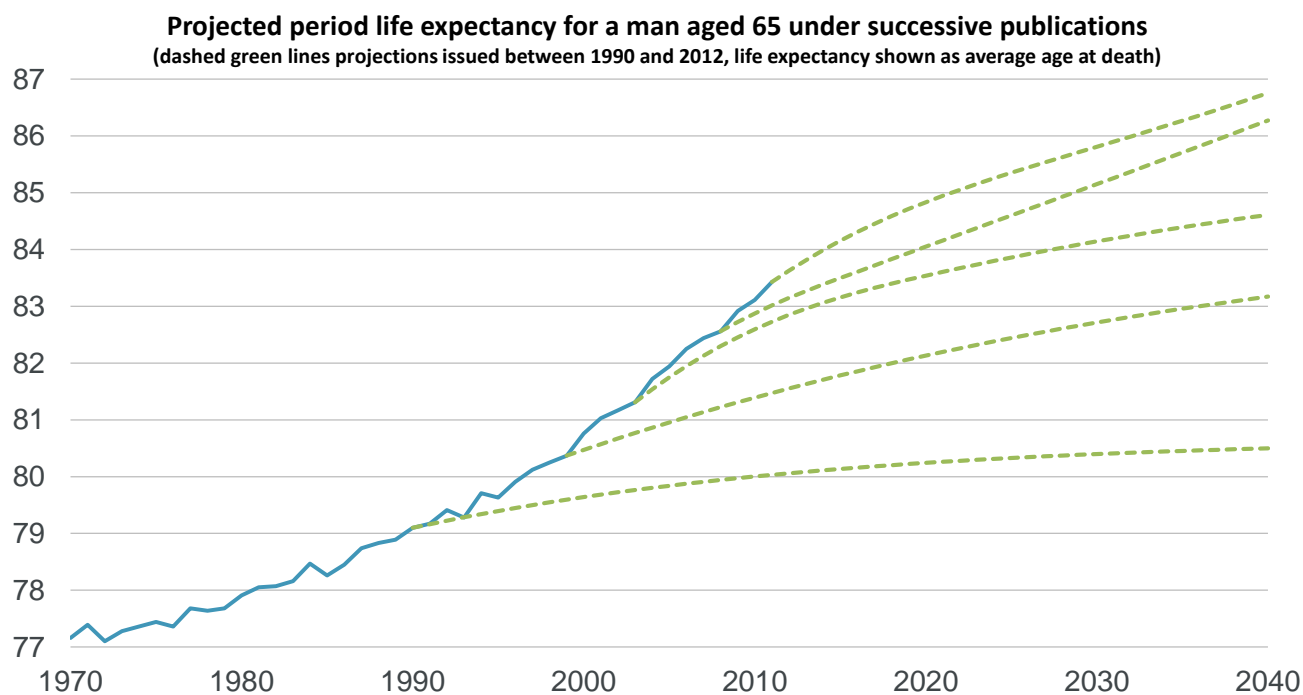
3 Uncertainty in longevity projections

The formula proposed by the DWP for adjusting SPa in line with future longevity focusses on cohort life expectancies. Specifically, that for each birth generation their expected lifespan upon reaching SPa should never be more than half the time spent between age 20 and SPa[4]. The SPa of younger generations is determined by projections of their lifespan from an SPa which may be 40-50 years in future, and so mortality rates some 60-80 years in the future.

Just as someone in the 1930s would have struggled to envisage today's world of medical advances and longevity advances, it is highly likely that actual life expectancy will differ, possible quite markedly, from whatever is suggested by today's longevity projections.

Indeed, in recent decades the longevity assumptions widely used for financial planning[5], have been repeatedly revised upwards, as illustrated by the dashed green lines in Figure 5 (the solid blue line being observed historical life expectancies).

Figure 5:

Projected period life expectancy for a man aged 65 under successive publications
(dashed green lines projections issued between 1990 and 2012, life expectancy shown as average age at death)

The consequences of repeated revisions in longevity projections on SPa, and the consequent loss of public confidence in pensions is profound. Hammond et al (2015) highlight how, if the formulaic approach had been implemented in 1980 then the younger generations would already have been notified of 5 changes in SPa, and a rise in SPA from 65 to 74.

In this context it is therefore important to appreciate that the ONS central projections embed an assumption that improvements in life expectancy seen in recent decades are not sustainable and that it will slow down over the next few decades (especially for men).

Figure 6 shows the historical progression of UK (period) life expectancy from age 65, and the projected evolution under the ONS 2014-based principal projections.

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[4] Note that the DWP phrase this as the expected time in receipt of State Pension should be no more than 33.3% of adult lifespan, where adult lifespan is defined as life expectancy from SPa plus the difference between SPa and age 20.

[5] Specifically by defined benefit pension schemes

Figure 6:

Historical and projected period life expectancy from age 65
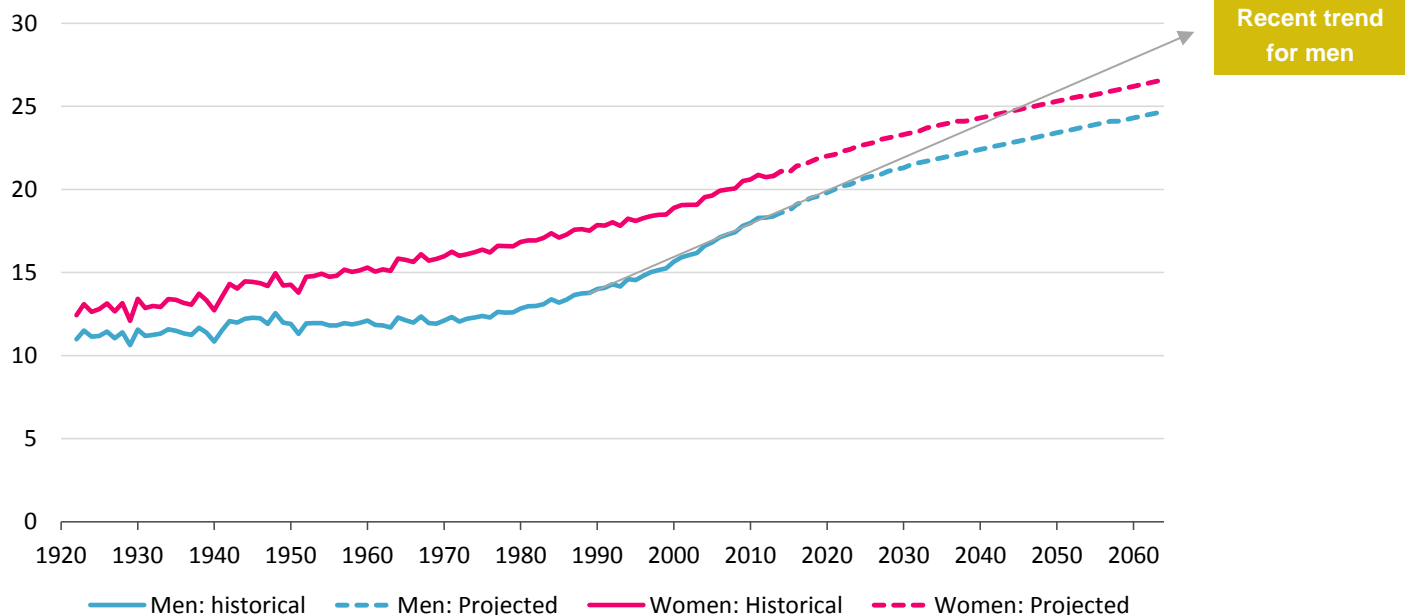
The slowdown in these projections is a strong assumption, which if relied on in setting SPa and not borne out in practice is liable to lead to either sudden changes in SPa in the future and/or further affordability challenges. Therefore, we believe it is important to be able to articulate the rationale behind any projection relied on for setting SPa, and to be aware of the sensitivity of SPa to the subjectivity in long term longevity projections. For example Hammond et al (2015) show a 9 year spread in SPa of between 65 and 74 by 2060 between the ONS low and high life expectancy projections.

Whilst the ONS projections are helpful for illustrating sensitivities they provide little in the way of a narrative for assessing their plausibility.   Club Vita have developed, collaboratively with the PLSA, a series of longevity scenarios, projecting different outcomes across the 'VitaSegments' socio-economic groups. The scenarios are split into three pairs – two scenarios broadly consistent with the range of 'central' scenarios we see used in funding defined benefit pension schemes, two 'high' trend scenarios, and two 'low' trend scenarios. We summarise these below, with more expansive descriptions in Annex B. Full details of the scenarios, including detailed life expectancy projections can be found in Club Vita (2014).

'Low' Trend scenarios	Central(ish) scenarios	'High' Trend scenarios
Challenging Times considers the potential that climate change and resource constraints pose challenges for maintaining current life expectancy, particularly for lower income groups.	**Improvement Decline** assumes that the frequency and impact of medical advances declines over time, leading to a material slowing of longevity trends compared to recent decades.	**Cancer Revolution** considers the impact of a major breakthrough in one of the major causes of death (cancer) resulting in the survival of those who would otherwise have died of cancer.
Back to the Fifties considers a scenario where life expectancy shows a prolonged and material decline for all groups	**Health Cascade** assumes that the widening and narrowing of the socio-economic gap in life expectancy has been driven by health behaviours 'cascading through' society. Once smoking cessation has worked its way through, the 'comfortable' group diverge again as early adopters of subsequent advances.	**Extended Youth** assumes that the longevity improvements seen in the population over the last 10 years will continue into the future, ultimately resulting in convergence in life expectancy between different socio-economic groups.

Note that these are a selection of possible scenarios. 'High' and 'Low' should not be construed as covering the full range of potential longevity scenarios – scenarios where life expectancy increases faster / decreases by more than these scenarios are possible.

Figure 7 shows the effect of applying Club Vita's scenarios to project future national life expectancy and applying the DWP formula to identify the impact on SPa (using the same assumptions as in Hammond et al (2015)). Depending on the scenario SPa may need to increase to 75 by the late 2050s, or could reasonably be reduced to 61. Further, the current legislated SPa changes, and those arising from applying the GAD formula to the ONS 2014-based principal projections, appear to be towards the lower end of the 'central' range.

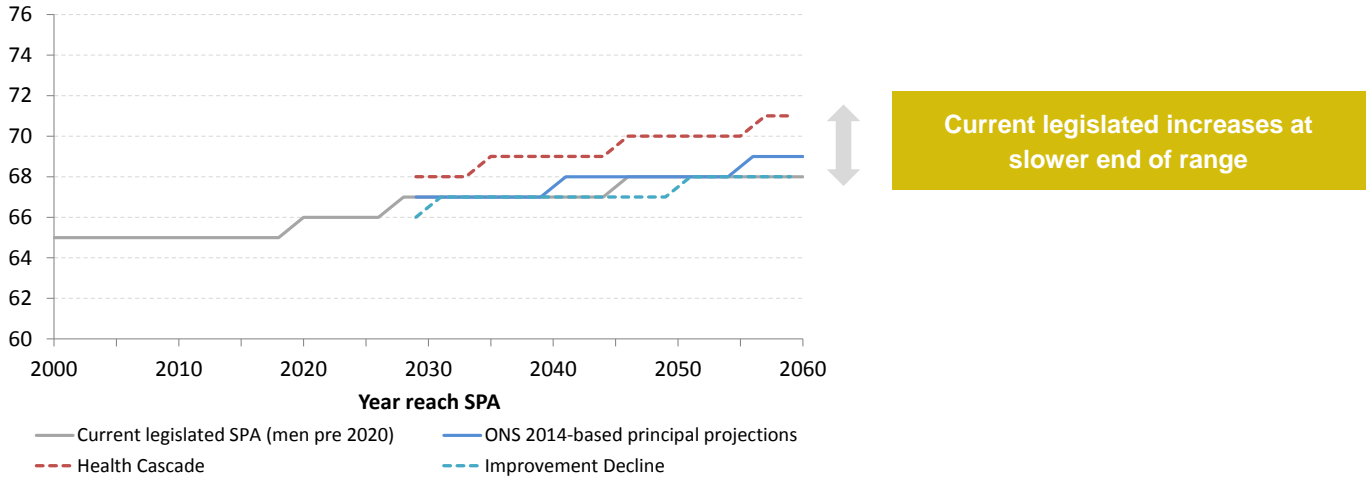## Figure 7a: Central(ish) scenarios

Current legislated increases at slower end of range

Legend:
- Current legislated SPA (men pre 2020)
- ONS 2014-based principal projections
- Health Cascade
- Improvement Decline

Figure 7b: High trend scenarios

Scenarios suggest SPa could increase to 75 by early 205s

Legend:
- Current legislated SPA (men pre 2020)
- ONS 2014-based principal projections
- Extended Youth
- Cancer Revolution

Figure 7c: Low trend scenarios

SPa under these scenarios would not need to rise (and could reduce)

Legend:
- Current legislated SPA (men pre 2020)
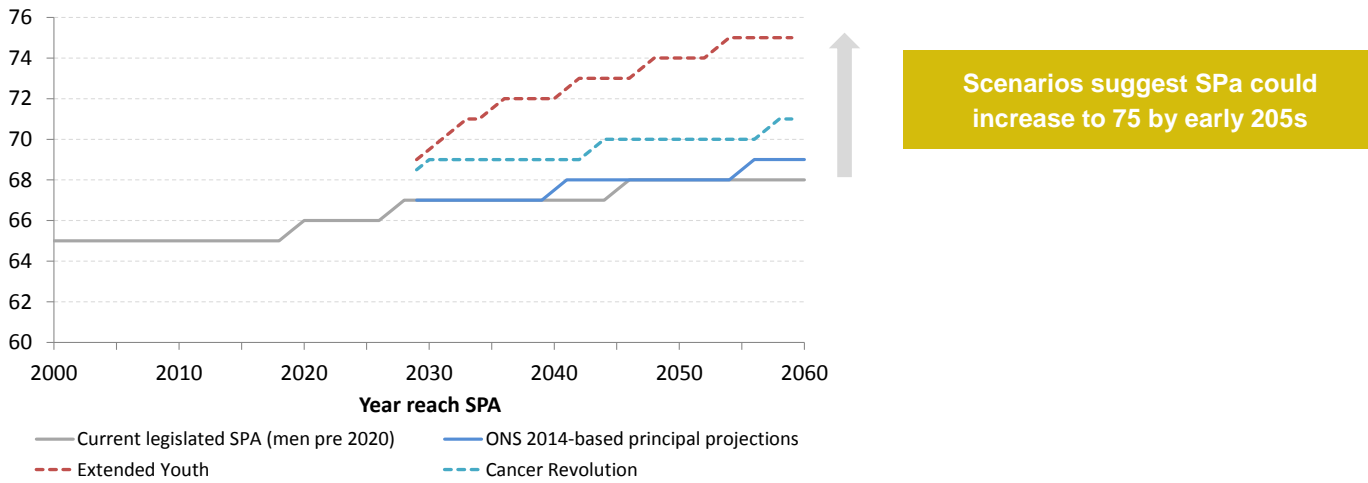- ONS 2014-based principal projections
- Challenging Times
- Back to the Fifities
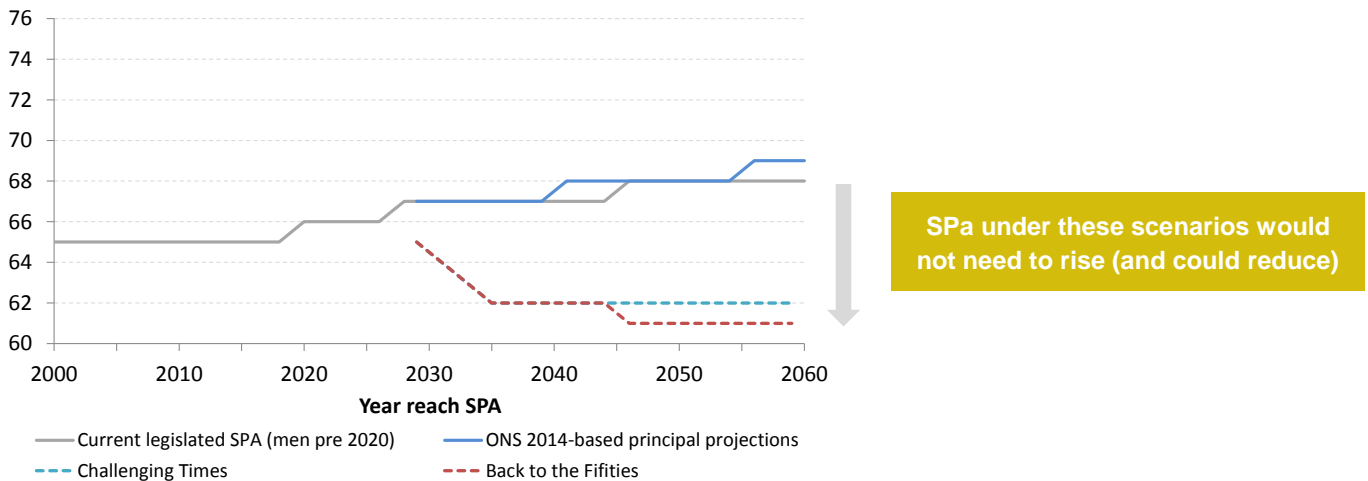
Consultation Question #10: How can we best take into account the sensitivity of the life expectancy projections when considering an appropriate State Pension age for the future?

As Figure 7 shows, by focussing on cohort life expectancies the formula used by DWP for SPa is inherently subject to considerable subjectivity in expert judgement. The SPa in 20 years will be strongly influenced by the mortality rates projected to happen in 40-60 years' time. Projections of these mortality rates are inherently uncertain and are liable to be materially revised over the course of the next 20 years and thereafter. Indeed some might argue that improvements per se are not *guaranteed* until they emerge.

We believe that it is important that reviews of State Pension age are **realistic** and **credible** to the public**.**

As such it may be better to base the system on objective, period (observed) life expectancies. For example if period life expectancy increases by 1 year between interim reviews then SPa should be increased commensurately (with the change coming in after the necessary warning period). This system would have the advantage of being highly objective and could be linked directly to published data. (For example the LGPS pension schemes actively monitor the emerging improvements in life expectancy across their schemes via a life expectancy index which is underpinned by data from Club Vita.) Such an approach would remove the sensitivity to life expectancy projections, whilst remaining responsive to emerging increases in life expectancy.

However, if the preference is to use cohort life expectancies (e.g. to reflect the specifics of the generations impacted by the reviews) then:

(1) The review should be based on a *realistic* projection of future mortality, otherwise it is liable to fail on achieving inter-generational fairness

(2) The projection used should have some form of accompanying **narrative**.

It is more palatable to increase State Pension age if there is a clear rationale – for example: "We originally thought it would take 30 years to make significant in-roads into cancer, but we have made great progress and already people are surviving much longer, as such we need to increase SPa"

Whatever approach (period or cohort life expectancies) is used, future SPas for the youngest workers will depend on events many decades into the future. This uncertainty should be **communicated**. We believe it is more responsible to suggest to those in their 20s and 30s that *'we expect your State Pension age to be between 68 and 72'* with a clear timetable under which greater certainty is provided, rather than creating a false illusion of certainty which then risks undermining confidence in the pensions system when (inevitably) revised.

4 Fair and Affordable Outcomes

The Interim Review is structured around three pillars:

- Affordability
- Fairness
- Fuller Working Lives

However, what does 'fair' mean in the context of reflecting rising longevity in the State Pension age?

At the heart of this question lies a requirement to be clear on what we mean by 'fairness'. For example is intra-generational fairness:

1 **Universality?** Same state pension age for all

2 **Supporting individuals at time of need?** Targeting the affordable level of benefit to ensure that it best meets the need of a safety net supporting the transition from work to retirement.

3 **Financially fair?** Should what you get out be 'fair' value given what you paid in, and how long you expect to draw State Pension age for?

Each of these interpretations have been suggested at various points in the State Pension age debate. The latter two perspectives suggest moving away from a universal SPa.

Supporting individuals in their time of need

In the absence of other welfare benefits, supporting individuals in the time of need suggests a system which captures:

- the difference in the timing of need across socio-economic groups, i.e. a higher state pension age for those who tend to live longer and so are healthier later in life, to ensure provision of state pension at a younger age for those who need it most; and
- the variations in outcomes that happen at an individual level.

The existence of other welfare state benefits prior to state pension age helps alleviate the impact of variations at the individual level, meaning that state pension can be seen as a form of social retirement insurance which can be topped up with private saving.

Financially fair?

In its most basic form this can simply mean 'you get out what you pay in'. However the state pension (quite rightly in our view) is predicated on being a form of social insurance i.e. pooling longevity risk across a group of lives, sharing the risk of poverty in older age across the community, rather than relying on individuals to make their own arrangements. Individuals don't have 'state pension pots' in the same way as DC pensions and state pension credits are awarded for 'socially useful' activities (e.g. carers) without individuals needing to make contributions. As such any attempt to link state pension receipts to payments in - beyond the awarding credits to a universal state pension – is untenable in our view.

However, the question remains in the context of the pooling of risk across the community; or put another way how far you go in defining smaller, more homogeneous pools of people to deliver greater fairness whilst preserving the benefits of pooling in the first place. Financially fair can also be subtler than simply 'you get out what you pay in'. For example it can be argued that those parts of society who can expect to live many years longer than others receive, in total, 15-20% more state pension than the 'average person'. Arguably this is unfair since:

- these individuals will (typically) have much lower reliance on the state pension; and
- the level of extra payments is not commensurate with any additional NI contributions they may have made

This line of reasoning suggests a SPa system which groups lives based upon the factors which materially influence longevity (i.e. later SPa for those groups expected to live longer) would deliver financially fairer outcomes.

Moving away from universality

We believe it is possible to capture socio-economic variations in longevity within SPa, and so better meet the alternative perspectives of fairness given earlier. Our 'Case Study: SPa linked to career earnings' describes a way which we believe meets the three key criteria given in our response to consultation question 10 of capturing individual circumstance, avoiding selection risk and being practical to implement. Furthermore, it would be simple to communicate. The trade-off is a sacrifice of the universality principle.

However, in deciding whether to move away from the universality principle it is important to consider the time horizon to which the interim review relates. Any proposed changes in State Pension age are unlikely to take effect before 2030 given the need to provide adequate notice to those impacted. A key policy question therefore is the likelihood of socio-economic differentials in longevity persisting many decades into the future – if the view is that they will persist then a move away from universality should be given serious consideration.

Consultation question #22: What are the alternatives to a universal State Pension age? How can they be designed and implemented so that both the principles of Affordability and Fairness are retained?

We believe there are practical alternatives which address the perceived unfairness of a universal State Pension age. These can:

- **Directly reflect socio-economic variations:** Moving away from universality to variable SPa. The underlying principle is SPa varies by socio-economic factors, with the SPa for each group being linked to changes in longevity to ensure affordability. Fairness is achieved by retaining principles like 'at most one third of life in receipt of State Pension' within each socio-economic group. In practice, SPa would initially rise faster for the longer-lived (more affluent) social groups who are liable to be better equipped to handle substantive changes in State Pension age. The 'Case Study: SPa linked to career earnings' box highlights one such mechanism.

- **Indirectly reflect socio-economic variations:** If universality is seen as a key principle of fairness then an alternative is to move from a system of a universal SPa, to instead rely on the universal requirement of number of credited years.

  Inequality in longevity is reflected indirectly in those leaving education earlier tend to have lower paid careers, often involving manual work. Historically, these individuals may have also been more prone to unhealthy behaviours and so shorter lifespans. By setting the requirement for the number of credited years sufficiently high, e.g. 50 years, this creates differentials in the age when individuals become eligible to receive state pension from e.g. 68 for those leaving school aged 18, to 71 for those spending three years at university. Credits for carers, job-seekers and those caring for children ensure fairness.

  Increasing proportions attending university may then support a gradual rise in average SPa and so help address the affordability challenge; although pressures on student finances may also be leading to increased numbers seeking part-time employment and in turn paying National Insurance and achieving credited years. In practice the required number of credited years would probably still need to increase over time as longevity rises to ensure continued affordability.

- **SPa window or 'early access' mechanism:** A universal SPa could be retained but with provisions for early-access. Two possible variations on this are:

  - **SPa window:** State Pension can be requested to start from a lower age and must be drawn by an upper age. The State Pension amount would be adjusted depending on when taken within this window (i.e. reduced for payment prior to some pivotal age). Whilst attractive in offering flexibility for earlier payment to those who find themselves in poorer health, these same individuals may also be those who most need to access the state pension unreduced. Consequently we would suggest an early access on demonstrable ill health may be a simpler approach.

  - **Early access on demonstrable ill health:** Increase SPa with rising longevity, but with the capability for individuals to access the State Pension upon demonstrable ill health. This mirrors the approach of occupational pension schemes and would help address concerns raised regarding healthy life expectancy. Key features would include GP verification of ill health, no enhanced benefits upon ill health (just early access) and a minimum age State Pension can be claimed from. See Harper et al (2011) for further discussion.

We also note that moving away from universality need not be an irreversible decision. A return to universality could happen if health inequalities between socio-economics are addressed. This could form part of a 'social contract' at the outset i.e. the government acknowledging the current inequalities and so moving to variable SPa but committing to address these inequalities and to restore universality once it is fair to do so.

Case Study: SPa linked to career earnings

Club Vita data highlights how earnings capture a considerable amount of the longevity spread seen at age 65. Grouping individuals by earnings would provide a means of moving to an SPa which captures broad socio-economic differences. Recalling the criteria for a successful allowance for socio-economic factors introduced earlier:

1 **Reflect individual circumstance**

High, moderate and low earners would have differing State Pension ages – with a higher SPa for the higher earners.

2 **Avoid 'selection' risk**

It is important that individuals can't game the system e.g. change earnings patterns in the time leading up to collecting State Pension to enable a lower SPa. This can be avoided by basing SPa on career earnings.

To avoid distortions from differing earnings patterns at the start of careers – where earnings may be low or zero due to full/part-time education - earnings could be measured from (say) age 25 onwards.

Career earnings would cease at (say) age 50 to enable certainty of socio-economic group, and in turn SPa, sufficiently far in advance of State Pension coming into payment.

3 **Be practical to implement**

Practical implementation requires a mechanism for reliably identifying an individual's earnings level during their career. A natural source for this would be national insurance contribution records.

Rules would also be needed to handle those who may be absent (NI contributory) earnings records in certain years. One approach is to allocate 'notional earnings' for that year. For example:

- those earning below the Primary Threshold the year could be credited, but with zero earnings; and

- those receiving State Pension credits as Carers, job-seekers or child-care could have 'notional earnings' set at a de-minimis level

Using a low notional earnings would reflect the low, or zero, income of these individuals during these years. Alternatives exist such as ignoring these years in the career average calculation.

Finally, a regular source of published data would be needed to enable (period) life expectancy by earnings band to be monitored.

Keeping it simple…

Moving away from universality introduces some complexity to the system. However, we believe that provided a small number of earnings groups are used, and information on an individual's current earnings band and associated SPA are readily available then some additional complexity is manageable. We would suggest developing a simple web-based tool enabling individuals to type in their National Insurance number and get information on their SPa, earnings band and whether they are close to changing earnings band for SPa purposes. This tool could be embedded in the existing SPa website and any DWP 'apps'; as well as accessed by pension providers to provide the SPa information in, for example, DC projection statements.

Further information

Should any of the State Pension Age Independent Review team wish to explore our comments and responses further we would be delighted to help. Any questions should be submitted in the first instance to Steven Baxter (steven.baxter@clubvita.co.uk).

Steven Baxter, Head of Longevity Research

For and on behalf of Club Vita LLP   December 2016
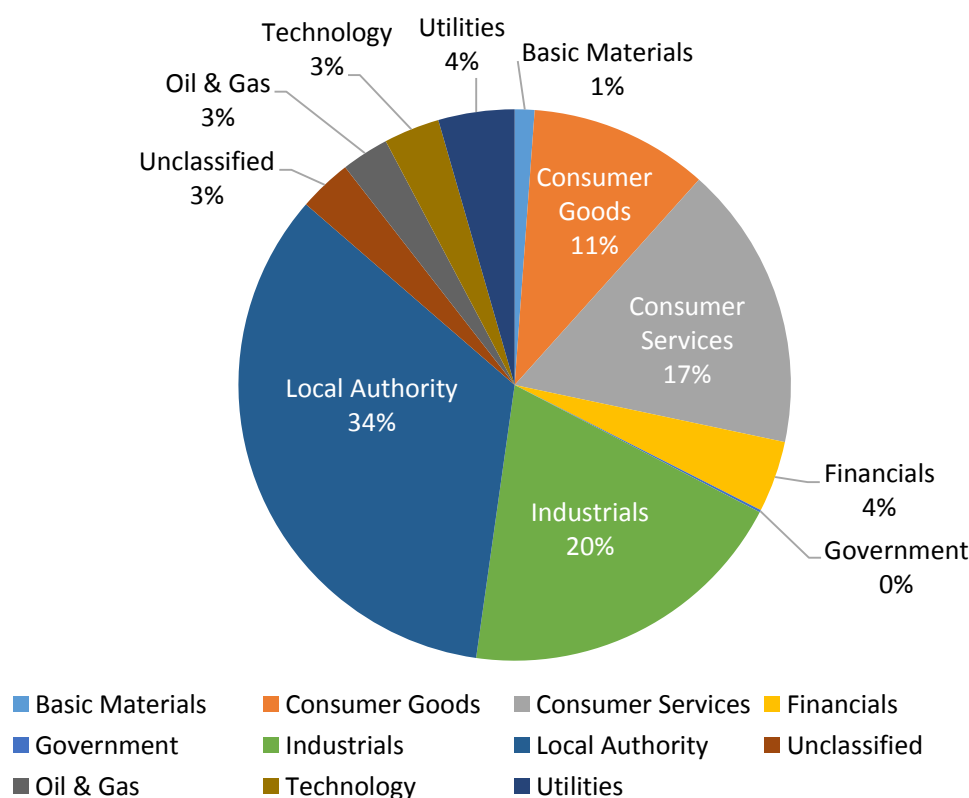
Annex A: Introducing Club Vita

Club Vita is a specialist provider of longevity risk analytical services.   It was established by Hymans Robertson in 2007 and is a wholly-owned subsidiary company.

We help pension funds – and their advisors – build resilient risk management systems to manage the uncertainty of future longevity. Unusually, we operate as a community of like-minded pension schemes with a shared common interest in longevity. The success of our collaboration requires every scheme to contribute, for every scheme to benefit. Feedback from supporters consistently reveals that Club Vita is the most insightful data resource for understanding – and managing - longevity risk.

Strength from diversity

We are supported by over 220 defined benefit (DB) pension schemes, spread across diverse industry sectors. Collectively, Club Vita tracks the emerging patterns in around 2.5m pensioners, representing 1 in 4 of DB pensioners. This rich diversity enables insightful comparisons of differences between industries.

Exposed-to-risk (lives) by industry: VITA data, Men pensioners

Basic Materials 1%
Consumer Goods 11%
Consumer Services 17%
Financials 4%
Government 0%
Industrials 20%
Local Authority 34%
Unclassified 3%
Oil & Gas 3%
Technology 3%
Utilities 4%

Legend: Basic Materials, Consumer Goods, Consumer Services, Financials, Government, Industrials, Local Authority, Unclassified, Oil & Gas, Technology, Utilities

Source: Club Vita sector breakdown as at March 2016

Richness of data

We collect a rich pool of data from our member schemes enabling us to impartially assess the importance of a range of characteristics on life expectancies- including:

• **Age:** how old someone is today is the most important factor influencing the likelihood they will survive the next year;

• **Lifestyle**: measured by full postcode (i.e. to the level of small groups of houses), linking life expectancy to individual's spending habits;

- **Affluence**: measured by full salary (or pension when salary is unavailable), linking life expectancy to a proxy for individuals' wealth and so access to healthcare etc.;

- **Gender**: pinpointing how different male and female life expectancy is for different socio-economic groups and how this is evolving;

- **Retirement type:** determining differences in life expectancy for members who retire on ill health or normal health pensions; and

- **Occupation:** measured by manual or non-manual. Whilst statistically significant, much of this difference is captured at a higher level through lifestyle and affluence factors.

Data quality

All the data used in Club Vita's analytics is subject to a rigorous battery of quality checks, validating key dates, addresses and the consistency of information within their pension record.

Quality controls filter out any records which are highlighted as having potential issues, and care is taken to ensure that excluded records do not inadvertently introduce biases.

A valued source of data

The richness of the data within Club Vita enables considerable insights to be drawn. Our collaborations to date include:

- Oxford Institute of Population Ageing (University of Oxford): Considering the interaction between longevity and SPa

- University of Glasgow: Considering the association between later retirement and increased longevity

- CASS Business School: To determine methods for understanding the potential for groups of lives to have lifespans substantially different to the national population (sponsored by the Institute & Faculty of Actuaries and The Life & Longevity Markets Association)

- Pensions & Lifetime Savings Association (PLSA, formerly the National Association of Pension Funds): Identifying how historical longevity trends have differed between groups of individuals within occupational pension schemes.

Annex B: Scenarios for future longevity

In the main body of our submission we illustrated how State Pension age would increase under the formulaic link to longevity as proposed by the Government in 2013 (see DWP (2013)).

The scenarios used were those created collaboratively between the Pension & Lifetime Savings Association (formerly the National Association of Pension Funds) and Club Vita. They are based on potential catalysts for future longevity changes and whether these might have differential impacts for the different socio-economic groups (i.e. the 'Comfortable', 'Making-Do' and 'Hard-Pressed' groups introduced earlier).

We summarise these scenarios below – further information can be found in NAPF (2014) and Club Vita (2014).

B1   'Central(ish)' scenarios

Improvement decline

This scenario focusses on what might happen if the frequency and impact of medical advances decline over time, coupled with rising obesity and other detrimental lifestyle factors. To do this we assume that the 'golden cohort' of people broadly born between the two world wars truly is golden, in the sense that following generations will never see longevity improvements as strong as those seen by that generation.

The benefits of existing healthy behaviours such as smoking cessation and the introduction of the NHS will be inherited by the subsequent generations*. However you can only give up smoking once. For younger generations we assume that the benefits of health interventions such as screening provide a driver for some continued improvements, but ultimately the behaviours and lifestyles (e.g. obesity) and/or limits to medical advances result in improvements slowing almost to stagnation. This leads to life expectancy starting to plateau over the next few decades.

* No allowance is made for the possibility for different patterns in the short term depending on how far through giving-up smoking each group is. This is considered in our Health Cascade example below.

Health cascade

The idea of a 'health cascade' underpins this scenario; whereby wealthier individuals in the population take up healthy behaviours (for example increased exercise, healthy eating, and sensible alcohol intake) before other less well-off individuals, and that those behaviours 'cascade' through to the rest of the population over time. There is some evidence of this having happening in the UK population, in particular in relation to smoking cessation, where smoking levels amongst the wealthier groups dropped first, with reductions in other groups following later.

We assume that some of the benefits of the drivers of recent rapid improvements such as smoking cessation, free 24/7 access to medical care and awareness of managing blood pressure have largely worked their way through the more affluent parts of society, but their benefit is still working its way through for our 'hard-pressed' group. Over the short term this drives continued narrowing of the gap in life expectancy between the 'hard-pressed' and the 'comfortable'.

Longer term, we assume that individuals in our 'comfortable' group are more willing and able to take advantage of any further advances in medicine or health and so ultimately the gap in life expectancy reopens.

B2   'Low' trend scenarios

Challenging Times

This scenario focusses on the significant impact climate change and resource constraints, particularly for oil, could have on life expectancy.

Pretty much everything that relates to a healthy lifestyle is related in some way to oil – from imported fruit and vegetables (which may be of increased importance if our climate becomes less conducive to growing crops) to medicine – where, amongst other things, petrochemicals are used to manufacture antibiotics, gels, plastics used in heart valves and syringes, as well as fuel in ambulances and helicopters. And whilst it's true that oil prices have plunged in just a few months of late 2014, this doesn't affect the possibility (or even the likelihood) of a more restricted supply in the longer term.

Alongside the direct impacts of restricted oil supply, we can imagine that constraints on resources would lead to a lack of economic growth, and in turn could lead to a negative impact on the levels of care that the NHS is able to provide.

In this scenario we therefore see life expectancy go up less slowly than seen in recent decades, and by the late 2020s life expectancy starts to fall for our less well-off groups ('hard pressed' and 'making do') as they are unable to afford or access some of their basic needs (heating, fuel, medicine). In contrast some continued slow growth in life expectancy is assumed for the comfortable group, as they are better positioned to afford access to the limited available resources.

Back to the Fifties

One of the great success stories of the 20th Century has been the rapid improvement in health outcomes and in turn rise in life expectancy as a result of modern medicine and technology advances. However this has not always been the case. We therefore consider a scenario where life expectancy shows a prolonged and material decline for all groups.

As it is quite extreme compared to recent trends, this scenario has no specific narrative - but the likely culprits could include a combination of material resource constraints, obesity, and austerity leading to a wholesale reduction or even dissolution of the NHS, and high levels of antibiotic resistance.

B3   'High' trend scenarios

Cancer Revolution

We are often asked what impact a "cure for cancer" or other major cause of death would have.

Very broadly speaking, 40% of deaths between 55 and 79 are cancer-related, and 25% of deaths above age 80. If we were able to cure (or at least keep alive) all of the people who would otherwise have died of cancer, it is fair to say that we are talking about a very significant proportion of deaths. That said, alternative causes of death will continue to exist, so lifetimes will not be extended indefinitely. Rather morbidly, there is something else that would have been 'queuing up' on the Grim Reaper's behalf.

For this particular scenario, we assumed that it takes 10 years (that is, 2025) for a cure for cancer to be found and rolled out. This reflects the lead time we would expect for a new drug/treatment discovered today. It also takes time for treatments to become available to the whole population. We assume it takes a further 5 years for its impact on mortality to be fully realised (i.e. by 2030). Because of this delay, the impact on life expectancy for those who are already in their 70s or older will be relatively small, with a much larger impact for younger individuals.

Extended Youth

This scenario assumes that the longevity improvements seen in the population over the first decade of the 2000s will continue into the future. This results in projected life expectancies that are much higher than currently assumed even under the ONS' 'high life expectancy' projections.

It is difficult to specify the precise details of a real world scenario in which this could come to pass; although it might be some combination of highly successful cancer screening programs, poly-pills, smart pills designed to improve drug adherence, ageing medicine breakthroughs increasing survivorship from the multiple diseases of later life, increased later life activity and exercise and reduced obesity.

That said, if we had been predicting life expectancy improvements 40 years ago, it is unlikely that we would have foreseen the impact that the likes of smoking cessation and improvements in medicine have had on life expectancy since then – it is possible that something similarly unexpected could be round the corner (or indeed already impacting us), leading to a further quantum shift in longevity.

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