

Introduction

As part of the Modelling Ageing Population to 2030 (MAP 2030) project, the PPI is exploring the impact that uncertainty in future longevity may have on expenditure on pensions. This briefing note builds on analysis presented at a seminar hosted by the International Longevity Centre on 16th June 2009¹. The analysis considers the potential impact ageing may have on expenditure in state pensions, income from private pensions, spending on means-tested benefits, and considers how increases in State Pension Age could be used to offset increases in pension expenditure.

Population Projections

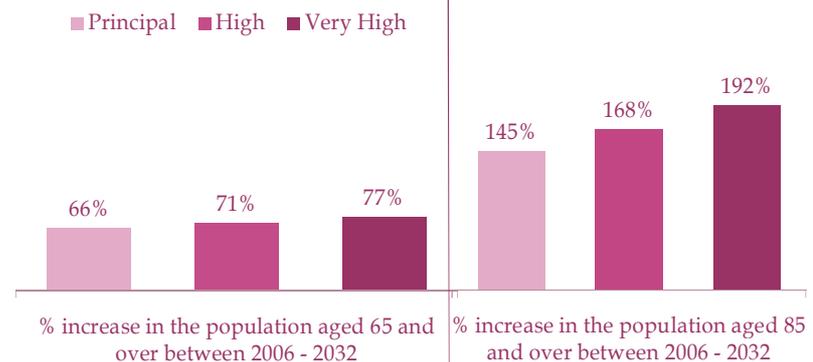
The Office for National Statistics (ONS) produces official national population projections for the United Kingdom by age and sex. The primary purpose of the projections is to provide estimates of future population levels. However, projections become increasingly uncertain the further they are carried forward.

Because of the uncertainty of population projections the ONS produce variant projections.

- The principal mortality variant assumes that, in the long term, mortality improves by 1% per year at each age.
- The high life expectancy vari-

Chart 1: The number of pensioners could increase significantly depending on future life expectancy

Population increase between 2006-2032 under three life population scenarios



ant assumes that mortality improves by 2% per year at each age.

However, recent experience has suggested improvements in mortality of around 3% per year at each age. Therefore, for the MAP2030 project Professor Mike Murphy from the LSE has produced an alternative very high life expectancy projection².

Chart 1 shows the impact on the pensioner population between 2006 and 2032 under the three population projections described.

- ONS official high life expectancy population projections show the numbers of people aged 65+ rising by 71% between

2006 and 2032, against 66% under the principal projection.

- Very high life expectancy population projections show numbers of people aged 65+ rising by 77% between 2006 and 2032.
- For pensioners aged 85+, the high life expectancy population projections show an increase of 168%, and very high life expectancy population projections show an increase of 192% between 2006 and 2032, against 145% under the principal projection. Under the very high life expectancy projection we would expect the number of people aged over 85 to almost triple by 2032³.

How could changes to life expectancy affect spending on pensions?

Spending on State Pensions

State expenditure on pensions can be broken down into four main categories:

- Basic State Pension (BSP)
- Additional Pension (SERPS/S2P)
- Pension Credit
- Other Benefits

Basic State Pension and Additional Pension are paid from SPA until death and currently are increased in line with price inflation. SERPS and S2P are price indexed, however, the government has committed to increase BSP in line with earnings by the end of the next parliament. Therefore, state spending on pensions is expected to increase in the future. This is represented by the change in total state spending, as a percentage of GDP, from 4.4% to 5.7% between 2012 and 2032 under the principal population projection.

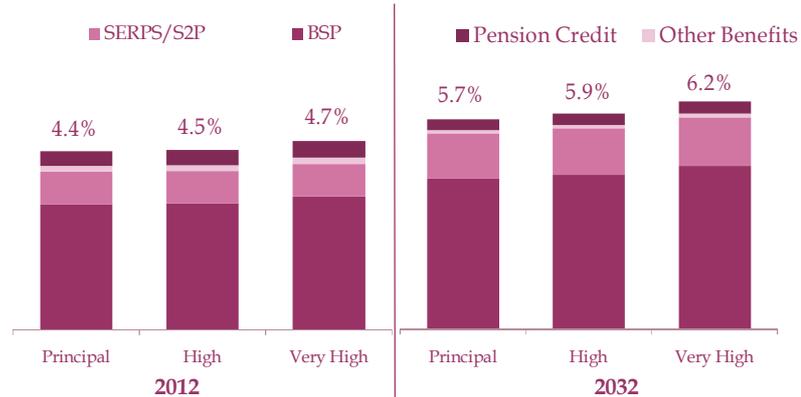
The impact of improvements in mortality on spending is an intuitive one. Basic State Pension (BSP), State Earnings Related Second Pension (SERPS) and State Second Pension (S2P) are paid from State Pension Age (SPA) until death. Therefore, if the average pensioner is living longer then the government will have to pay the state pension for longer and total spending on state pensions will increase (Chart 2).

- Improvements in mortality will impact state spending by 2012, increasing spending by

Chart 2: State Spending on Pensions increases as the numbers of people over SPA increase

PENSIONS POLICY INSTITUTE
PPI

State Pension Expenditure as percentage of GDP under the three population projections



0.3% of GDP between the principal projection and the very high mortality projection.

- By 2032 the effect of an improvement in mortality is much larger showing an increase of 0.5% of GDP between the principal projection and the very high mortality projection. This is because the full effects of improving mortality and the re-indexing of BSP to earnings inflation isn't seen until after 2012.

Under the very high population projection state spending on pensions could increase to 6.2% of GDP by 2032 compared to spending of 4.4% of GDP in 2012 under the principal projections.

Pension Credit is a top-up benefit that is paid to pensioners whose income falls below the level of the Guarantee Credit (£130 in 09/10). In the long-term total expenditure

on Pension Credit should decrease. This is because as the state pensions become more generous less people will require the 'top-up' to the Guaranteed Credit level. In any given year, improvements in mortality might be expected to increase expenditure on Pension Credit. This is because Pension Credit would be paid to the average pensioner for a longer period of time. Levels of Pension Credit are also linked to private pension income and is discussed below.

Other Benefits are made up of Winter Fuel Payments, Christmas Bonus and Over 80s Bonus. All of these benefits are assumed to be frozen in cash terms so, even though mortality improvements would increase spending, total spending in real terms reduces over time.

Could increases in state spending be offset by higher state pension age?

SPA is already due to increase for women in 2010, reaching 65 by 2020. SPA then increases for both men and women in phases, the first phase being an increase from 65 to 66 between 2024 and 2026, the second increase from 66 to 67 between 2034 and 2036 and the last increase from 67 to 68 between 2044 and 2046. Therefore, by 2032, SPA for men and women will be 66.

Chart 2 shows that state spending on pensions is projected to increase from 4.4% of GDP in 2012 under the principal population projection to 6.2% of GDP in 2032 under the very high population projection (an increase of 1.8% of GDP).

State pensions are paid from SPA so, if life expectancies are increasing then one logical solution to counteract increased expenditure on state pensions is to increase SPA. However, there are other social considerations that should be looked at when considering increasing SPA. One concern often expressed is that there is variation in life expectancy by social class⁴.

A one year increase in SPA would reduce state spending

The PPI has modelled the impact of bringing forward the increase in SPA from 66 to 67 between 2026 and 2028 (as opposed to between 2034 and 2036 as currently planned).

Chart 3: State spending on pensions increases as life expectancy increases but falls back as SPA increases

State Pension Expenditure as percentage of GDP under three scenarios

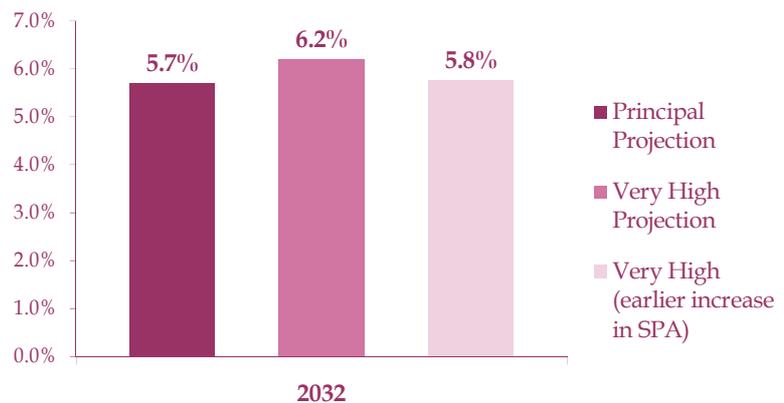


Chart 3 shows the impact of improvements in life expectancy and increasing SPA (while assuming very high population projections) against the principal population projection in 2032. Under the principal population projection expenditure on state pensions is 5.7% of GDP and this rises to 6.2% of GDP under the very high population projection. The policy option of bringing forward the increase of SPA to 67 from 2034 to 2026 reduces the spending on state pensions back down to levels close to the principal projection, at 5.8% of GDP.

If life expectancy turns out to be in line with the very high projection and the policy objective is to maintain state spending on pensions at currently expected levels in 2032 (5.7% of GDP), then bringing forward the increase in SPA to 2026 might be an appropriate choice. However, spending on state pensions in 2032 in such a scenario is

5.8% of GDP which is still significantly above the 2012 spending figure under current population projections (4.4% of GDP).

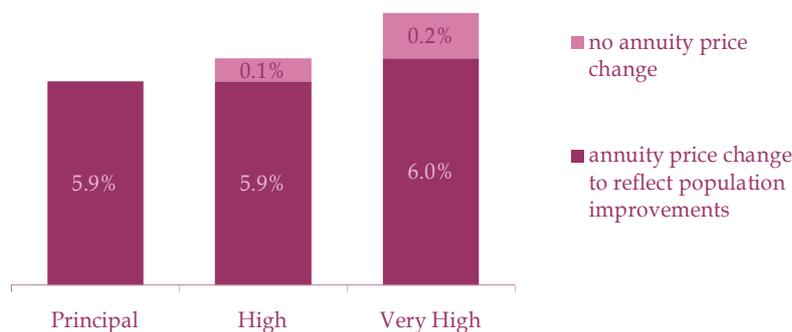
Income from Private Pensions

The income that pensioners receive from private pensions is dependent on a number of factors. If the pensioner holds a Defined Benefit (DB) pension, the factors that will affect the income that is received are their final salary, the accrual rate and the length of time that the pension will be in payment. A DB pension will be paid for longer if mortality rates improve and people live longer.

If the pensioner holds a Defined Contribution (DC) pension, the factors that need to be considered are the contribution rate, the annuity rates used by the annuity provider and the length of time that the pension will be

Chart 4: Higher than anticipated life expectancy could increase private pension income

Income from private pensions in 2032, % GDP



in payment. If people are living longer then an annuity will be paid for longer in the DC environment. Therefore, with increased longevity and assuming no change to annuity or accrual rates, total private pension income would increase.

However, providers of private pensions may react to mortality improvements. If annuity providers 'know' about higher life expectancy then they can adjust for it by reducing the annuity rates that are offered. If pension providers do adjust for higher life expectancy then the overall impact of higher life expectancy slightly increases the total income to pensioners⁵.

Chart 4 shows that by 2032, income from private pensions could represent 5.9% of GDP under the

principal population projection, 5.9% of GDP under the high projection and 6.0% of GDP under the very high projection. This makes the assumption that private pension providers would adjust their annuity rates in response to changes to expected improvements in life expectancy.

However, if private pension providers do not fully predict of the changes to expected improvements in life expectancy, and do not change their annuity rates accordingly, then private pension income could increase to 6.0% of GDP under the high projection and 6.2% of GDP under the very high projection⁶.

Conclusion

It is well known that people in the UK are living longer than

they have in the past. What is not well known is how long people are likely to live in the future, especially in the long-term. The Office for National Statistics (ONS) produces population projections under various scenarios - including improving mortality. If mortality improves by a greater amount than is predicted under the principal scenario, state spending on pensions will increase. The increase is quite significant when a very high population projection is considered. In 2012, under principal projections 4.4% of GDP is expected to be spent on state pensions. This increases to 6.2% of GDP in 2032 under the very high scenario.

One suggested option to reduce state spending is to bring forward plans to increase SPA to age 67 from 2034 to 2026. If we assume the very high life expectancy projection, the impact of increasing SPA is to reduce spending down to 5.8% of GDP by 2032. This is close to the spending level projected under the principal projection in 2032. However, it is still above the spending levels projected in 2012.

¹IILC UK and Actuarial Profession Joint debate held at Staple Inn on 16th June 2009 www.ilcuk.org.uk/record.jsp?type=event&ID=63

² Projections produced by Professor Mike Murphy from LSE

³ An increase of 192% is close to increasing by 3 times the original number.

⁴ The Guarantee Credit and state pension age: A PPI paper for the TUC.

⁵ Providers of DB pensions may adjust their accrual rates if they 'know' about higher life expectancy. However, we have not modelled it for this briefing note.

⁶ Although income from Pension Credit is impacted by private pension income, it is not sensitive to changes in annuity rates and hence, income from private pensions.

For more information on this topic, please contact

Chris Curry

020 7848 3731 chris@pensionspolicyinstitute.org.uk