Estimated cost of uprating State Pension in frozen rate countries

Methodological update

December 2013

Background

The non up-rating or frozen pension policy is a long-standing one of successive Governments. The annual index-linked increases are paid to eligible UK State Pension recipients living outside the UK where there is a legal requirement. For example, where UK State Pension recipients are living within the European Economic Area or where there is a reciprocal agreement between the UK and the host country that provides for uprating of the UK State Pension.

Around half a million recipients of the UK State Pension living overseas are not eligible to get their State Pension uprated – about 85 per cent of them are living in Australia, Canada and New Zealand.

Each year, after the Autumn Statement, DWP is able to produce an estimate for the cost, in the next financial year, of uprating State Pensions received in frozen rate countries. As the timing coincides with the Lords second reading of the Pensions Bill, and we have updated the methodology used to estimate the cost, we are publishing revised future projected costs and also estimates of past costs from observed data for the first time.

Results and Methodology

Estimated past costs and future projected costs of uprating frozen State Pension in each year

Year	Estimated cost (millions)
2010/11	£490
2011/12	£520
2012/13	£570
2013/14	**£580**
2014/15	**£590**

Note: Estimated costs have been rounded to the nearest ten million. The figures in bold are projected costs as DWP does not currently have access to observed data in these years. The smaller increases to the estimated cost in recent/future years are due to lower uprating factors then compared to previous years.

Estimates of past costs

To produce estimates of past costs (first three rows only) we use the 5% extract of administrative data, collected in September of each year.

A summary of the approach:

1. Select the individuals from the data who are flagged as receiving a frozen State Pension.
2. Split the individuals into groups dependent on the date they started to receive their frozen State Pension
3. Match each group with the relevant uprating factors needed to uprate their frozen State Pension to the year the data was collected in.
4. Apply the uprating factors and calculate the cost as the difference between the uprated and frozen State Pension.
5. As the data is a 5% extract, multiply the cost by twenty to get an estimated cost for the whole population.

This cost is an estimate and we rely on the accuracy of the administrative data. We make the assumption that the individuals receiving a frozen State Pension in the 5% extract are representative of the whole population of individuals receiving a frozen State Pension. The administrative data is for a fixed point in the year and we do not take into account any possible changes to the population over the year, but since the data is for the mid point in the year any changes that would be made would have a negligible impact.

Estimates of projected costs

To produce estimates of projected costs we use the latest available 5% extract of administrative data, collected in March of each year as a base and simulate future changes to the population. This is a more sophisticated method then the one used to calculate previously published estimates. As part of the quality assurance process we have used this new methodology to estimate past costs, the results are within 1% of estimates of past costs using administrative data. The estimates produced by the previous method were within 10% when estimating costs one year ahead.

A summary of the approach:

1. Use the latest March 5% data extract available – this gives us the population who are alive at the end of the financial year.
2. Uprate the frozen State Pension to the year the data was collected in (using the same method as we would to estimate past costs, described above).
3. To estimate the costs for the next financial year we first create the population of individuals who are projected to be alive at the end of the next financial year:
   a. Assign a random number to each individual;
   b. Merge on mortality rates based on gender and age;
   c. If the random number is greater then mortality rate the individual is modelled to survive until the end of the next financial year.

4. We calculate the uprated State Pension in the next financial year using a growth factor for each individual based on the proportion of their State Pension that is from basic State Pension and additional pensions and the value of the Triple Lock and CPI that are used to uprate each component.

5. The cost for the next financial year is the difference between the uprated State Pension in the next financial year and the frozen State Pension:

   a. For individuals who are still modelled as alive at the end of the next financial year we use 100% of this cost in our total cost estimate.

   b. For individuals who we model as deceased during the next financial year we use 50% of this cost in our total cost estimate. This implies an assumption that people we model as deceased in the year die in the same numbers across the year.

6. We can use our simulated population of people who are alive at the end of the next financial year if we want to produce an estimate of the cost two financial years ahead. To do this we age the population by one year and repeat the above process, starting from step 3.

7. Again, as the data we are using is a 5% extract we multiply the cost by twenty to get an estimated cost for the whole population.

This cost is an estimate and we rely on the accuracy of the administrative data. We use country specific mortality rates for individuals flagged as living in Australia, Canada and New Zealand as these account for the vast majority of the expenditure. For all other countries we use UK mortality rates. We assume that individuals from the 5% data extract are representative of the whole population. As we use a stochastic technique to model survivors the estimates are subject to some random variation.

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