Government Actuary's Department

Government Actuary's Quinquennial Review of the National Insurance Fund as at April 2015

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Required by Section 166 of the Social Security Administration Act 1992 to be laid before Parliament

Presented to Parliament pursuant to 166(5) of the Social Security Administration Act 1992 as amended by the Social Security Contributions (Transfer of Functions, etc) Act 1999

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To

The Right Hon. David Gauke MP, Secretary of State for Work and Pensions

The Right Hon. Mel Stride MP, Financial Secretary to the Treasury

Sirs

In accordance with the terms of section 166 of the Social Security Administration Act 1992, I have reviewed the operation, during the period 6 April 2010 to 5 April 2015, of:

a) Parts I to VI of the Social Security Contributions and Benefits Act 1992 (except Part I of Schedule 8)

b) the provisions of the Jobseekers Act 1995 relating to contribution-based Jobseeker's Allowance

c) the provisions of Part 1 of the Welfare Reform Act 2007 relating to contributory Employment and Support Allowance, and

d) the Social Security Administration Act 1992, Chapter II of Part I of the Social Security Act 1998 and Part II of the Social Security Contributions (Transfer of Functions etc) Act 1999, so far as they relate to a) to c) above.

The objective of the review as set out in section 166 (4) of the Social Security Administration Act 1992 is

> 'to determine the extent to which the level at which the National Insurance Fund stands from year to year may be expected in the longer term to bear a proper relation to demands in respect of payments of benefit; and for this purpose the Actuary shall take into account:
>
> a) current rates of contributions
>
> b) the yield to be expected from contributions in the longer term; and
>
> c) such other matters as he considers to be relevant as affecting the present and future level of the Fund.'

My conclusions are given in the attached report prepared by staff in the Government Actuary's Department.

Martin Clarke, FIA

Government Actuary

October 2017

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Part 1 – Summary results and conclusion

1 Executive Summary

1.1 This report includes projections of future National Insurance contribution (NIC) receipts and benefit expenditure from the National Insurance Fund ("the Fund"), from 2015-16 to 2080-81, to highlight the factors that are likely to affect the future development of the Fund. It does not make recommendations for the Fund but is intended to provide information to help the UK Government understand potential risks to the future sustainability of the Fund.

Sustainability

1.2 The base-case projections assume National Insurance contribution rates and Fund benefits remain as currently defined, subject to up-rating and re-rating policy. These projections indicate that in the long term (from 2025-26) benefit expenditure is expected to exceed National Insurance Contribution receipts by an ever increasing amount, equivalent to around 1% to 1.3% of GDP. This is primarily caused by:

- an increasing old-age dependency ratio (the number of pensioners per 1,000 people of working age) itself a result of increasing life expectancy, although the assumed State Pension age (SPa) increases from 2037 onwards help mitigate this, and large cohorts of people born in the early 1960s reaching SPa around 2030
- a projected increase in the average state pension benefit payable as individuals start to receive the new State Pension
- increases in the standard rate of basic State Pension and new State Pension relative to the increase in earnings as a result of the 'triple-lock' policy (up-rating at the greatest of CPI, earnings and 2.5% a year).

1.3 In the shorter term (2015 to 2025) NIC receipts exceed benefit expenditure due to:

- the end of contracting out in April 2016, which increased the level of NIC receipts
- the increases to female SPa to age 65 by November 2018, and the subsequent increase of male and female SPa to 66 by October 2020.

1.4 The consequences of the above progression in NIC receipts and benefit expenditure are that:

> - the Fund balance is expected to increase until around 2024-25, without any Treasury Grants being required
> - without additional support in addition to NICs, the Fund balance will fall rapidly to exhaustion in around 2032-33
> - Treasury Grants would be required from around 2030, but would consistently need to exceed the current limits from 2060-61.

1.5 The position was similar at the last Quinquennial Review, as at April 2010, although the Fund is now projected to be exhausted slightly earlier (about three years) than previously expected. This mainly reflects lower expected future earnings growth, which reduces the expected NIC receipts but has a lesser impact on benefit expenditure due to the triple-lock policy.

1.6 The projected position of the Fund is however sensitive to relatively small changes in the projected levels of NIC receipts and benefit expenditure. These are affected by the assumptions adopted, and in particular to:

> - ONS population projections, which include assumptions about fertility, migration and mortality rates
> - future SPa changes
> - future earnings growth rates
> - benefit uprating, and in particular the effective rate impact of the triple-lock policy

1.7 I have tested the sensitivity of the Fund to changes in these assumptions, but in all of our variants the Fund is unsustainable in the long term without persistent support from Treasury Grants. The variant projections considered are not intended to cover all possible scenarios or the maximum range of possible outcomes, but should provide a clear indication of the factors that might affect the future finances of the Fund.

1.8 This report focuses solely on the Fund and the factors that affect its long-term development. In noting the long-term shortfall from NICs to support the expected future growth in State Pension expenditure and the consequent likelihood of ongoing and growing support required in future from other sources of Government revenue, the value of further reviews may become limited without inclusion of additional benchmarks to judge the scale of the available support.

Other issues

1.9 The figures in this report are based on benefit levels and eligibility criteria remaining consistent with the current policy. Both of these can significantly impact on the future benefit expenditure and therefore any changes may have material consequences on the projected Fund position.

1.10 Whilst the projections in this report suggest the financial position of the Fund will be stretched over the longer term, there are factors that could significantly alter the position at the time of the next Quinquennial Review due as at 2020. Some metrics could be developed to provide an early warning of potential deviations from the base-case projections, which may also be useful for considering the need for Treasury Grants.

1.11 Furthermore, the process for determining whether a Treasury Grant is required could be reconsidered to determine whether an alternative approach would be more effective.

2 Background and purpose

The National Insurance Fund

2.1 The National Insurance Fund (the 'Fund') was established in 1948 to hold contributions in respect of contributory social security benefits, and provides working capital to ensure these benefits can be paid. The benefits are payable to individuals meeting certain qualifying criteria. The main benefits currently provided are:

- New State pension (nSP) for those reaching State Pension age (SPa) on or after 6 April 2016
- State Retirement Pension for those reaching SPa before 6 April 2016 with associated earnings-related additional and graduated pensions
- Employment and Support Allowance / Incapacity Benefit (contributory elements only)
- Bereavement Benefits
- Jobseeker's Allowance (contributory element only)
- Maternity Allowance

2.2 The cost of these benefits is generally met from National Insurance contributions (NICs) paid by employers, employees and the self-employed. Each year a Treasury Grant of up to 17% of estimated benefit expenditure in that year may also be paid into the Fund.

2.3 Appendix A provides an overview of the benefits provided by the National Insurance Fund and the structure of contributions payable to the Fund.

2.4 The majority of NICs paid to the Fund are used to meet the benefit expenditure in that year rather than to build up reserves. As such the system can broadly be described as operating on a pay-as-you-go (PAYG) basis, with the Fund being used to manage cash-flow variations. This approach means that the Fund remains small relative to the benefit expenditure. In recent years the Fund has been between £20 billion and £30 billion, whereas annual contribution income and benefit outgo have been around £90 billion each.

2.5 A number of government departments have responsibilities related to the operations of the Fund:

> HM Revenue & Customs (HMRC) is responsible for collecting NICs and recording them against individuals' contribution records (necessary to determine entitlement to benefits)

> The Department for Work and Pensions (DWP) is responsible for the award and payment of most benefits payable from the Fund, and for payments to the Fund relating to maternity benefits paid by employers to employees

> The Department for Business, Energy and Industrial Strategy (BEIS) is responsible for making Redundancy Payment Scheme awards, and for payments to the Fund relating to adoption and paternity benefits paid by employers to employees

> HM Treasury (HMT) is responsible for oversight of public spending including the welfare system

> The Government Actuary is responsible for reporting to Parliament:

a) annually on the impact on the Fund of proposed changes to benefit and contribution limits and rates

b) every five years on the longer term operation of the Fund

Purpose of the report

2.6 This report has been prepared for the Secretary of State for Work and Pensions and HMT, in accordance with the requirements of section 166 of the Social Security Administration Act 1992. It is understood that HMT will lay this report before Parliament.

2.7 This legislation requires the Government Actuary or Deputy Government Actuary to provide a report as at the end of every fifth year:

"to determine the extent to which the level at which the National Insurance Fund stands from year to year may be expected in the longer term to bear a proper relation to demands in respect of payments of benefits; and for this purpose the Actuary shall take into account:

a) current rates of contributions

b) the yield to be expected from contributions in the longer term; and

c) such other matters as he considers to be relevant as affecting the present and future level of the Fund."

2.8 The last such report, by the previous Government Actuary, had an effective date of April 2010 and was published on 17 July 2014. My report has an effective date of April 2015 and considers the expected future level of the Fund over the 65-year period up to and including the financial year 2080-81.

2.9 This report includes projections of future NIC receipts and benefit expenditure to highlight the factors that are likely to affect the future development of the Fund. It does not make recommendations for the Fund but is intended to provide information to help the UK Government understand potential risks to the future sustainability of the Fund.

2.10 The projections within this report are intended to consider the long term position of the Fund. Long-term projections, by their nature, are unlikely to be borne out in practice and it is therefore more relevant to consider the trends and relativities these projections indicate rather than considering the figures in any particular year.

2.11 As the Fund balance is relatively low compared to the annual benefit expenditure and NIC receipts, short term fluctuations in experience can have a material impact on the Fund balance, eg a recession leading to lower employment or reduced earnings growth or some combination of these. However, it is unlikely that such short-term variation in the experience would persist every year throughout the projection period and therefore it is appropriate to use stable long-term assumptions, while exploring the likely variation in results were actual experience to be different from these.

2.12 In order to ensure a reasonable working balance in the Fund, the convention is to consider the payment of a Treasury Grant if the Fund balance is projected to fall below 1/6th of annual benefit expenditure (approximately two months' benefit expenditure). Treasury Grants are however limited to a maximum of 17% of estimated benefit expenditure in the relevant year[1]. The report highlights when this limitation on the size of a Treasury Grant is expected to create a funding issue.

2.13 In 2015-16, State Pension benefits constituted 94% of benefit expenditure from the Fund. As such, changes in State Pension age, and the uprating policy for State Pension benefits, can have a significant impact on the future Fund expenditure.

2.14 Class 1 contributions, paid by employers and employees, in 2015-16 constituted 96% of contribution income to the Fund and therefore different earnings or employment experience can have a significant impact on future Fund income.

2.15 This quinquennial review includes variant projections to illustrate the impact of different State Pension age scenarios on the position of the Fund as well as variants for a range of other assumptions including earnings, employment and demographic experience. These help to illustrate the risks to the future Fund balance.

2.16 Section 3 summarises the results of our base-case projections of the Fund and the changes in these since the 2010 report. Section 4 considers how sensitive the projections may be to some of the underlying assumptions adopted, while Section 5 provides further details on wider factors that are relevant to the overall sustainability of the Fund.

[1] Section 2 of the Social Security Act 1993 http://www.legislation.gov.uk/ukpga/1993/3/contents

2.17 The appendices provide more complete details on the benefits, data, assumptions and methodology underlying the report, including the limitations of the data and approach. They also tabulate summarised output from the baseline and variant projections.

2.18 This report has been carried out in accordance with the applicable Technical Actuarial Standards: TAS 100 and TAS 300 issued by the Financial Reporting Council (FRC). The FRC sets technical standards for actuarial work in the UK.

3 Results of analysis

Methodology and assumptions

3.1 In order to consider the financial sustainability of the Fund, I have adopted a 65-year projection period using accounts figures for the year 2015-16 and projections of expected NIC receipts and Fund benefit expenditure for the period 2016-17 to 2080-81. These projections are combined with the existing Fund balance as at April 2016 to determine the expected Fund balance during the projection period.

3.2 A variety of data sources and assumptions have been used in order to produce the projections. The assumptions have been selected to provide a best estimate of the future development of the Fund with no inherent margins. Further details regarding the data and assumptions, including comments on the limitations, are provided in Appendices B and C. However, in summary:

> benefits are based upon current legislation and stated policy regarding benefit increases (with an assumption that the triple-lock policy on State Pension benefits is retained throughout the projection period, as there is no stated policy beyond the current Parliament)

> NICs are based upon currently legislated contribution rates and earnings limits increasing with stated policy in the short term, and in the long term increasing in line with earnings (to avoid distorting effects arising from fiscal drag)

> data are taken from DWP records in respect of benefit awards and from HMRC records in respect of NICs

> assumptions regarding demographic factors are based upon recent Office for National Statistics (ONS) Great Britain (2014-based) population projections as summarised in the table below:

Demographic factor	Assumptions
Mortality	• age-related annual rates of improvement in mortality rates converging to 1.2% for most ages in 2039 and remaining constant at 1.2% a year thereafter • Higher rates of improvement assumed for those born between 1922 and 1939, and lower for those born before 1922
Fertility	Long-term completed family size of 1.89
Migration	Long-term annual net migration of 184,000 per year

> assumptions regarding economic factors are based upon recent Office for Budget Responsibility (OBR) releases, specifically 2016-17 to 2021-22 CPI price inflation and employee earnings growth assumptions in line with the Economic and Fiscal Outlook (EFO) published in March 2017, and with assumptions for 2022-23 onwards in line with the Fiscal Sustainability Report (FSR) published in January 2017, as set out in the table below:

Financial Year	CPI	Earnings Increases (employees)
2015-16 (Outturn)	-0.10%	1.80%
2016-17	1.00%	2.60%
2017-18	2.60%	2.60%
2018-19	2.20%	2.80%
2019-20	2.00%	3.00%
2020-21	2.00%	3.50%
2021-22	2.00%	3.70%
2022-23 onwards	2.00%	4.30%

> projections are based upon current legislation and stated policy regarding State Pension age in line with the recent Secretary of State for Work and Pensions report on State Pension age[2] (SPa). The Secretary of State's report indicated an expected increase in SPa from 67 to 68 during 2037-39 and a longer term policy intention for SPa to be set to reflect an aim of up to 32% of adult life to be spent in retirement. In light of the long projection period for the Quinquennial Review, I have assumed this is achieved by two further increases in State Pension age at 10-year intervals and thereafter in line with the 32% policy intention, which results in the following assumed SPa timetable:

Period	SPa change
2018-2020	65 to 66
2026-2028	66 to 67
2037-2039	67 to 68
2047-2049	68 to 69
2057-2059	69 to 70
2068-2070	70 to 71

[2] https://www.gov.uk/government/publications/state-pension-age-review-final-report

> calculations have been completed on several assumption sets; base-case assumptions representing the central estimate, and summarised in the remainder of this section, and alternative assumptions summarised in Section 4 to illustrate how the future development of the Fund can be affected by different factors.

Base-case fund projection

3.3 Historically the National Insurance Fund has operated on a pay-as-you-go basis, whereby NIC receipts are expected to broadly meet benefit expenditure as and when it arises. The Fund provides a working balance to meet arising benefit expenditure that is in excess of NIC receipts at any particular time, particularly as changes in contribution rates, in response to the needs of the Fund, can take time to implement. However, in recent years additional funding has been provided through Treasury Grants to ensure a minimum working balance was maintained in the Fund.

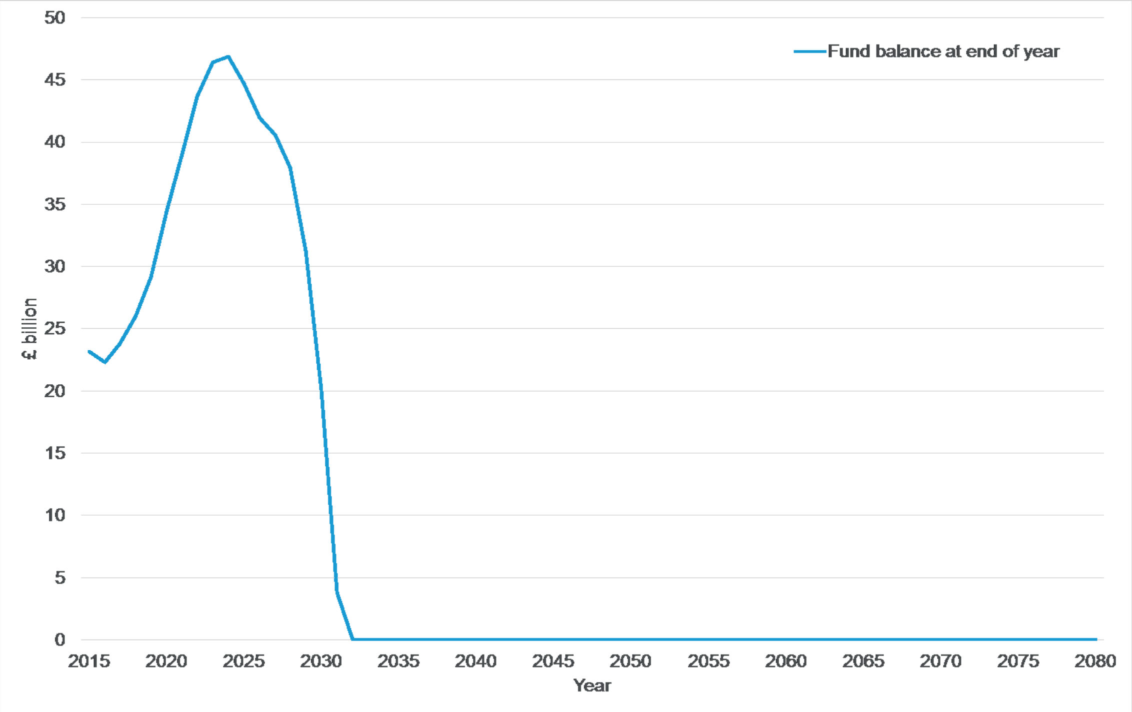
3.4 The main drivers of the Fund position are the relative growth in NIC receipts and benefit expenditure, and the factors that contribute to this growth. I have looked at a number of different metrics to understand the relationship between the NIC receipts, benefit expenditure and Fund balance. These measures are intended to provide an indication of the sustainability of the Fund over the longer term and to aid understanding of the most relevant factors.

3.5 I first considered the projected Fund balance over time to ascertain whether or not additional funding, either through increased NICs or via a Treasury Grant, may be required to meet expected benefit expenditure during the projection period. Chart 3.1 overleaf shows that the Fund balance is expected to run out in 2032-33 and hence additional funding is expected to be required in order to meet projected benefit expenditure. Note that throughout this report charts of projected Fund balance do not allow for any Treasury Grants that may be paid in the future. Appendix E provides details of the projections at 10-year intervals.

3.6 In the period to 2024-25 the Fund balance (assuming no future Treasury Grants are paid) is projected to increase comparatively sharply to reach about half a year's benefit expenditure, before falling to zero by 2032-33. As the Fund balance is relatively small compared to the annual benefit expenditure and NIC receipts, both of which were around £90bn in 2015-16, relatively small changes in the level of expenditure or income can have a significant impact on the Fund balance.

3.7 In the period up to 2020-21, SPa for males and females is being increased to age 66, which slows the increase in benefit expenditure. After this point expenditure increases more quickly than income and begins to exceed it from 2025-26. The speed at which expenditure increases more quickly than income is slowed briefly from 2026 to 2028 as SPa increases again to age 67. The development of benefit expenditure and NIC income is considered further in paragraphs 3.9 to 3.17.

Chart 3.1: Projected Fund balance

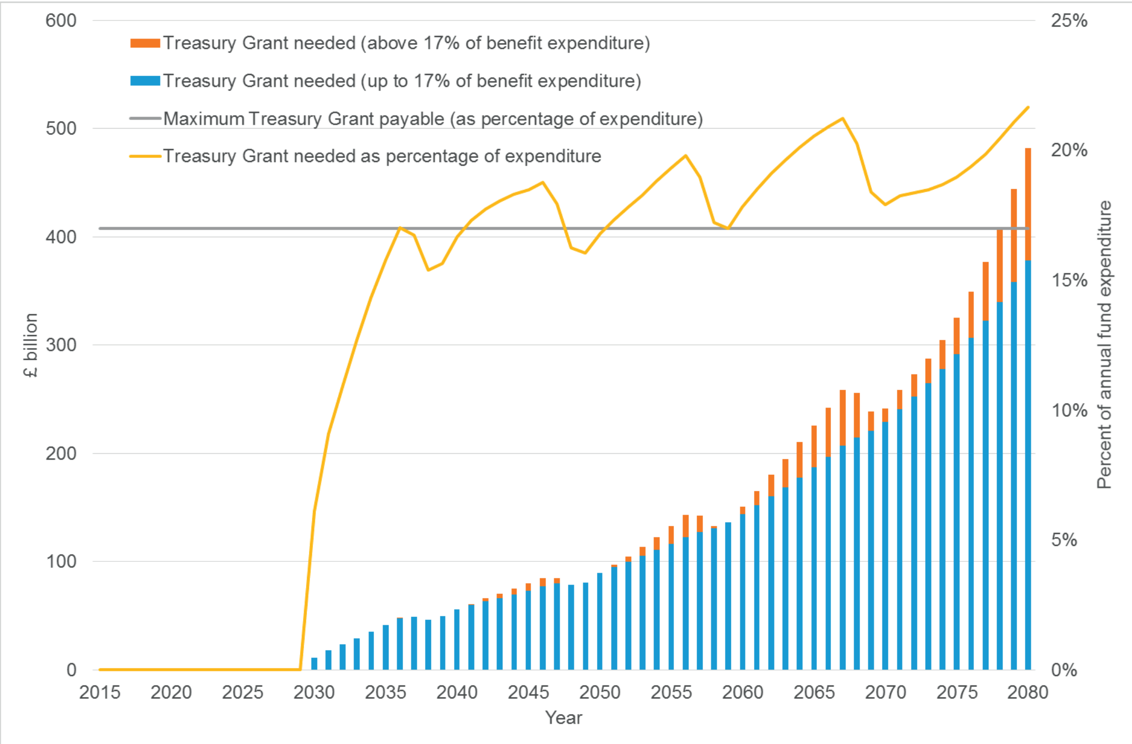


3.8 Although chart 3.1 shows the projected Fund balance excluding any allowance for future Treasury Grants, I have also calculated the Treasury Grant that would be required each year in order to ensure the Fund balance is at least 1/6th of annual benefit expenditure. Table 3.1 and chart 3.2 overleaf show that the required Treasury Grant increases rapidly and exceeds the current legislated maximum of 17% of estimated benefit expenditure consistently from 2060-61. Therefore, if the assumptions underlying the projections are borne out, and Treasury Grants are paid in line with the current policy when the Fund balance is expected to fall below 1/6th of expenditure, the current rate of NICs together with Treasury Grants paid at the maximum level permitted under legislation would be insufficient to maintain a positive Fund balance throughout the projection period. Note the pattern of the yellow line in chart 3.2 reflects the assumed timing of SPa increases.

Table 3.1: Required Treasury Grant to maintain 1/6th Fund balance (Treasury Grant required in any year assumes that grants required in previous years have paid)

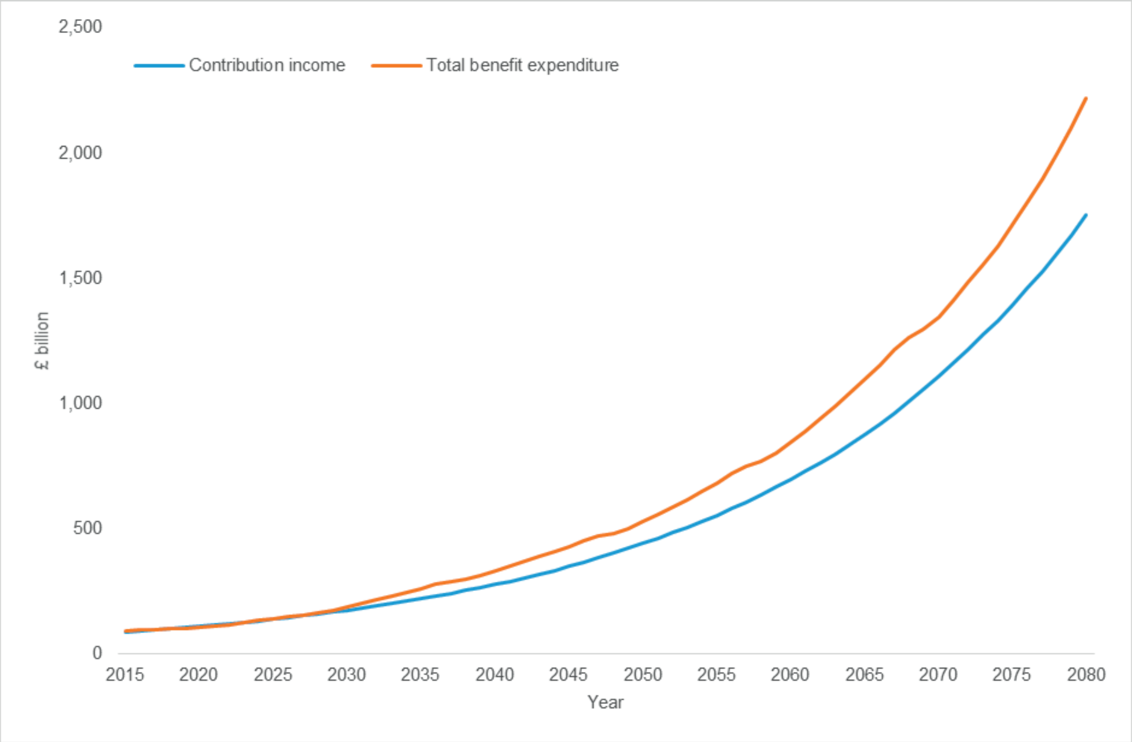
Financial Year	Treasury Grant (£bn)	Treasury Grant (% of estimated benefit expenditure)
2015-16	n/a	n/a
2020-21	n/a	n/a
2030-31	11.6	6.1%
2040-41	55.9	16.7%
2050-51	89.3	16.8%
2060-61	150.9	17.8%
2070-71	241.7	17.9%
2080-81	481.9	21.7%

Chart 3.2: Required Treasury Grant to maintain 1/6th Fund balance and maximum Treasury Grant under existing regulations



3.9 The weakening of the financial position of the Fund over time relates to the expected relative growth of the NIC receipts compared to benefit expenditure. Looking at the development of NIC receipts and benefit expenditure, in chart 3.3 below, it is apparent that expected increases in NIC receipts falls materially short of the expected increase in benefit expenditure over the long-term. Whilst the projections of each are closely aligned initially, benefit expenditure is projected to increase significantly faster in all years during which State Pension age (SPa) is not increasing, and is projected to exceed NIC receipts from 2024 onwards.

Chart 3.3: NIC receipts and Fund benefit expenditure

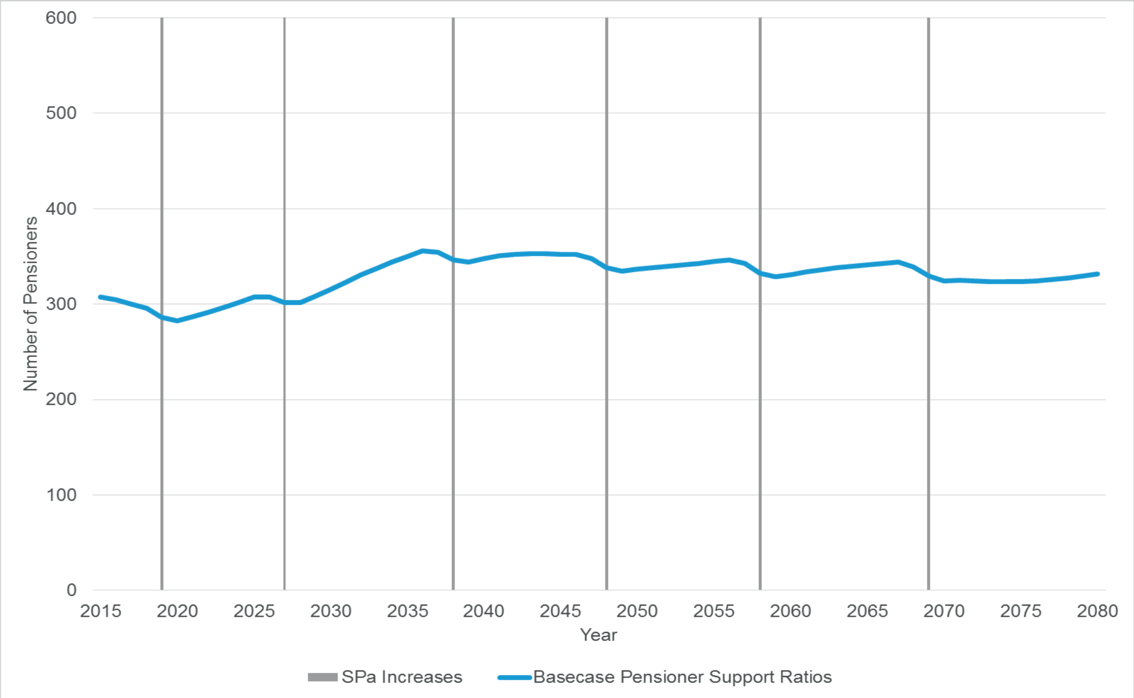


Demographic change

3.10 There are several reasons why benefit expenditure is projected to increase more rapidly than NIC receipts. One reason relates to the expected changes in the UK population, which see the pensioner population increasing in size much more rapidly than the working age population. The majority of benefit expenditure relates to State Pension payments to the pensioner population, whereas NIC income is derived from the working age population. Therefore, as the relative sizes of each of these components of the population change, so does the relationship between NIC income and benefit expenditure.

3.11 Chart 3.4 below shows the change in the ratio of pensioners to working age individuals over the projection period, known as the old age dependency ratio. The chart is based on working age starting at 16 and ending at State Pension age (SPa), reflecting the ages at which contributions may be payable. This differs slightly from the corresponding metric in my State Pension age review, which considered working age starting at 20, consistent with the specified parameters for that report. The chart illustrates that the ratio changes from around 310 pensioners per 1,000 working age individuals in 2015 to around 360 pensioners per 1,000 working age individuals in 2036. However, the assumed SPa increases from 2037 onwards help to stabilise the old age dependency ratio over the remainder of the projection period.

Chart 3.4: Old age dependency ratio – Number of Pensioners per 1,000 workers



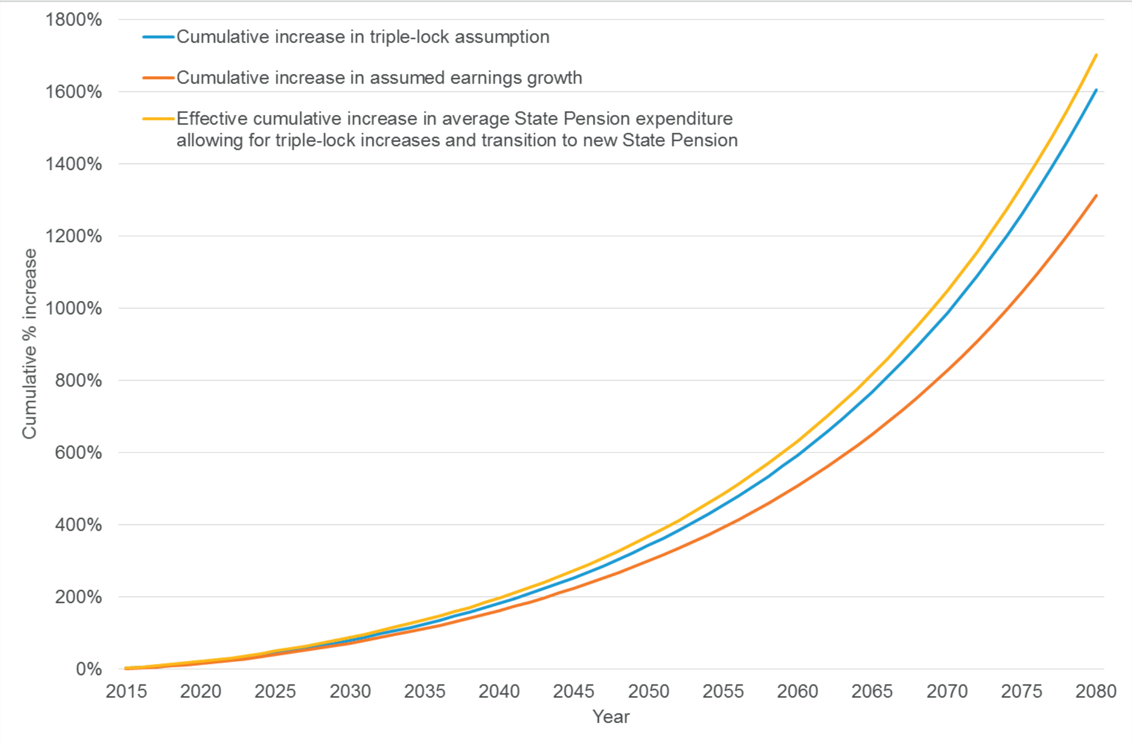
Benefit increases

3.12 Two further factors affecting the relative speed at which benefit expenditure and NIC receipts increase over the longer term are linked directly to the State Pension benefits. Firstly the triple-lock policy for up-rating, applicable to basic and new State Pension benefits, increases benefits at the greatest of CPI, earnings growth and 2.5% pa, whereas NIC receipts broadly increase in line with earnings (subject to how earnings limits are defined). Secondly, the introduction of the new State Pension is projected to increase the average rate of State Pension benefits payable to those over SPa.

3.13 In the short term I have taken assumptions for both CPI increases and earnings growth on a year by year basis. These are compared to 2.5% to determine the appropriate triple-lock increase. Over the longer term stable CPI and earnings growth assumptions are adopted reflecting the average rates expected to apply over the period. In practice I would expect both CPI and earnings to fluctuate each year sometimes being above 2.5% and sometimes below regardless of what the assumed average is. To allow for this fluctuation I added a margin of 0.34% a year to the earnings growth assumption to allow for the potential impact of the triple-lock policy. This is in line with OBR's assumption of the long term average effect of the triple-lock policy, but the actual impact could be much larger or smaller than this particularly when looking over shorter periods. As a result of this assumption, over time it is assumed that the triple-lock policy results in projected state pension benefits increasing faster than either earnings or price inflation.

3.14 Chart 3.5 below illustrates both the impact of the triple-lock policy and additional impacts from the introduction of the new State Pension. The orange line shows the assumed cumulative increases in earnings, which drives NIC receipts, the blue line shows the assumed cumulative increase in State Pension from the triple-lock policy and the yellow line shows the assumed cumulative increase in State Pension benefits from the combined impact of the triple-lock policy and the transition to new State Pension.

Chart 3.5: Increases in State Pension benefit rates compared to assumed increases in earnings

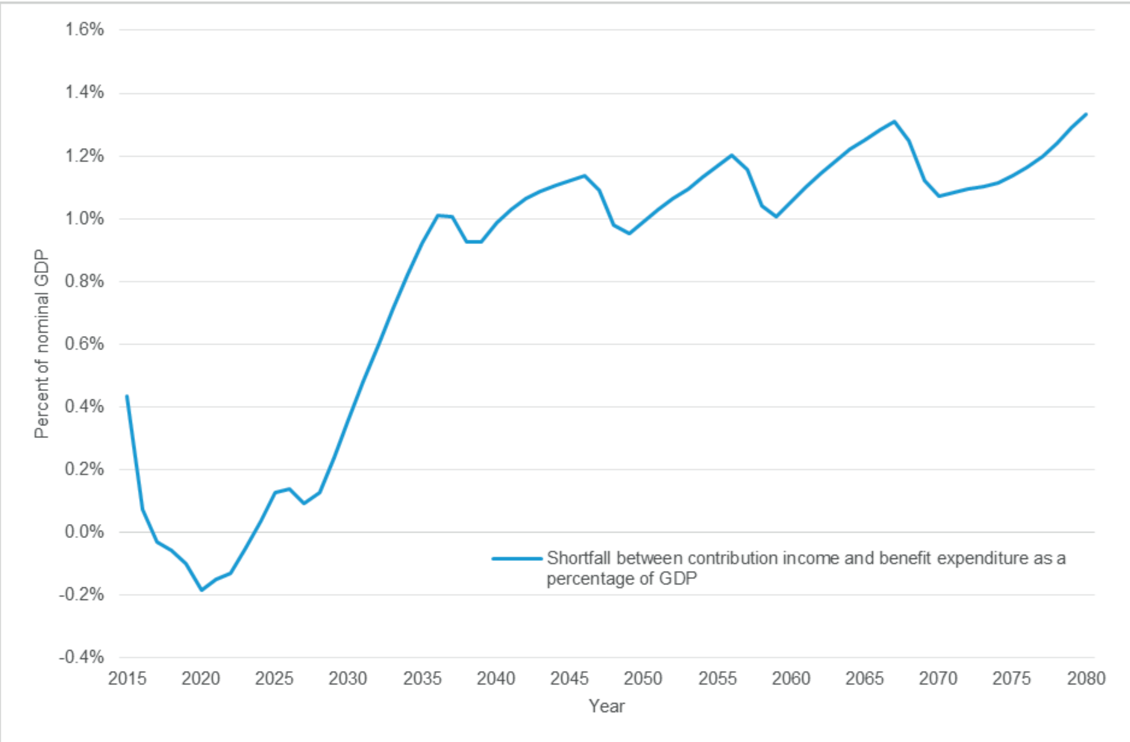


3.15 The significance of the triple-lock policy on the Fund over the long term is further illustrated in section 4 where a scenario is provided in which basic and new State Pension benefits are assumed to increase in line with earnings from April 2023 onwards.

Combined impact

3.16 The combination of the changing demographic position in the short term and the impact of the triple-lock policy in the longer term, combine to affect the shortfall between the projected NIC receipts and benefit expenditure. Chart 3.6 below illustrates this shortfall as a percentage of projected GDP, based on the OBR's 2017 Fiscal sustainability report projections. I have illustrated the shortfall relative to projected GDP to consider the implications for overall government finances recognising that the introduction of the new State Pension is likely to alter reliance on other means tested benefits that are not paid from the Fund. However, this report focuses on the financial position of the Fund itself and therefore does not include any details of the projected change in benefit expenditure payable from direct tax receipts.

Chart 3.6: Shortfall between projected NIC receipts and benefit expenditure as a percentage of GDP

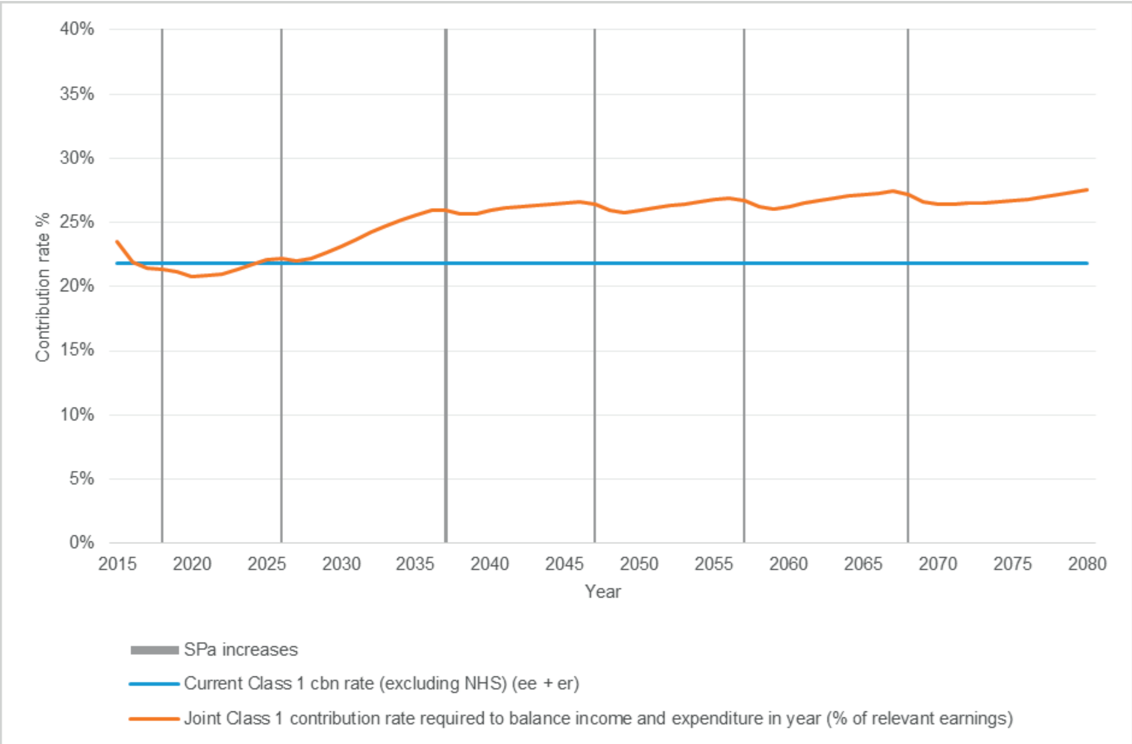


3.17 In the early years of the projection period, increases in benefit expenditure are relatively low as SPa is increasing during this period, reducing the old age dependency ratio. In addition, the introduction of the new State Pension from April 2016 resulted in the end of pension scheme contracting out, which had enabled some individuals and employers to pay lower NICs. As a result the level of NIC receipts increased significantly in 2016-17 relative to 2015-16. However, as the old age dependency ratio increases, and the longer term impact of the triple-lock policy becomes evident, benefit expenditure increases and the shortfall as a percentage of GDP also increases. This is projected to continue to increase over time due to the assumed impact of the triple-lock policy, with the assumed increases in SPa partially mitigating the effect of the demographic impacts.

Break-even contribution rate

3.18 A similar pattern can be seen when considering the break-even contribution rate. This is the NIC rate required such that projected income exactly equals expected benefit expenditure and expenses (assuming benefit policy remains unchanged). Therefore, if the NIC rate is equal to the break-even rate it is expected that the Fund balance would be broadly stabilised throughout the projection period. Chart 3.7 below shows the break-even contribution rate for Class 1 contributions. I have used Class 1 contributions as these accounted for around 96% of total contribution income in 2015-16. Similar proportionate increases would be required to the other classes of NICs. The chart also shows the dates at which assumed increases in State Pension age are expected to occur.

Chart 3.7: Class 1 break-even contribution rate



3.19 Chart 3.7 indicates that in order to meet projected benefit expenditure, additional financing would be required from the 2030s, be that through increases in NIC rates or from some other source. The level of additional financing or increases in contribution rates required is projected to further increase in later decades but the assumed increases in State Pension age mitigate this to an extent. Assuming no other financing was provided, at the end of the projection period, the Class 1 NIC rate that would be required to cover benefit expenditure is projected to be around 28%, up from the current rate of 21.85%.

3.20 The base-case projections therefore suggest that the financial position of the Fund is expected to come under pressure in the next 10 to 15 years unless changes are introduced. However, the projections rely on a large number of assumptions about the future which could prove to be inaccurate and other factors could arise to distort the position. Section 4 considers this further by providing the outcome of projections on a range of alternative assumption scenarios, which helps identify the main risks to the future sustainability of the Fund.

Change since 2010

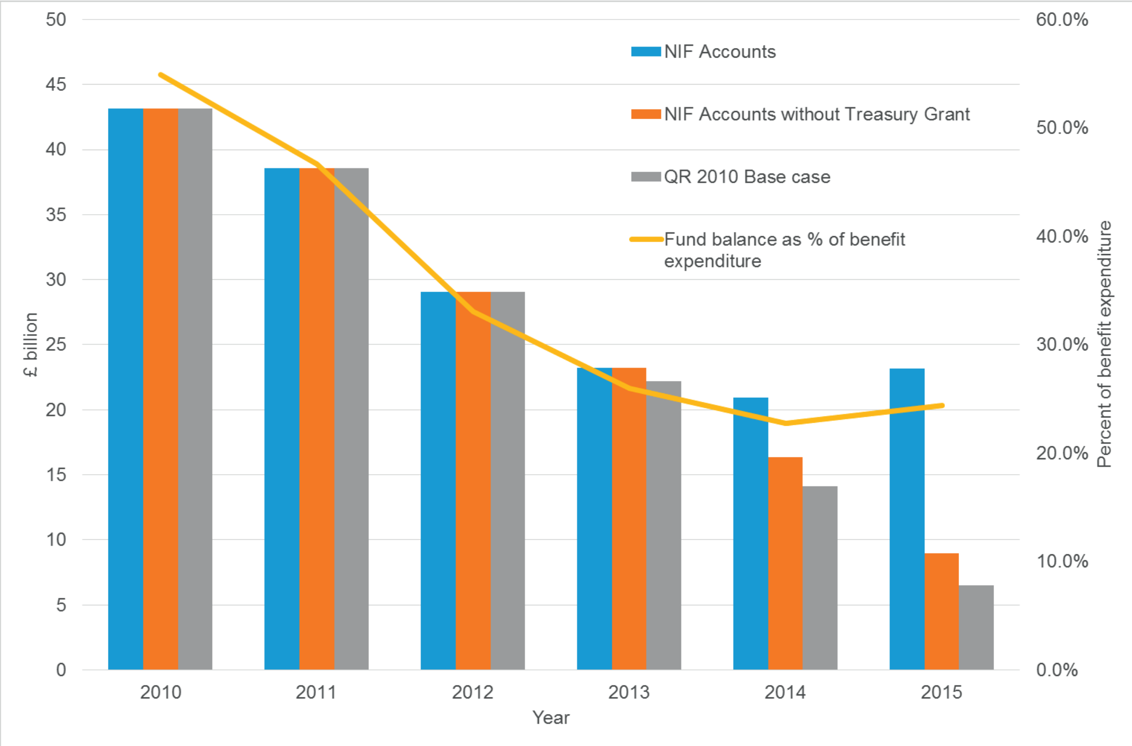
3.21 Before considering the main areas of risk for the Fund, it is worth understanding the change in the projections for the Fund since the last Quinquennial Review (QR) as at April 2010. Analysing the change in the position of the Fund is a useful starting point to see if recent experience highlights any particular factors that pose a risk to the Fund's sustainability.

Past period

3.22 Chart 3.8 overleaf shows the actual progression of the Fund balance between 2010-11 and 2015-16, and compares this to the Fund balance that would have occurred if no Treasury Grants had been paid during the period, as well as the expected position shown in the last Quinquennial Review (QR 2010).

3.23 QR 2010 used accounts figures for the years up to and including 2012-13, providing projections from 2013-14 onwards. The chart illustrates that the 2013-14 Fund balance followed the projections in QR 2010 very closely. Over the years 2014-15 and 2015-16 the Fund balance deviated from the projections, however the majority of the deviation resulted from the payment of Treasury Grants that were not included in QR 2010 projections. As a result the starting Fund balance for QR 2015 is significantly higher than was projected.

Chart 3.8: Fund Experience 2010-11 to 2015-16

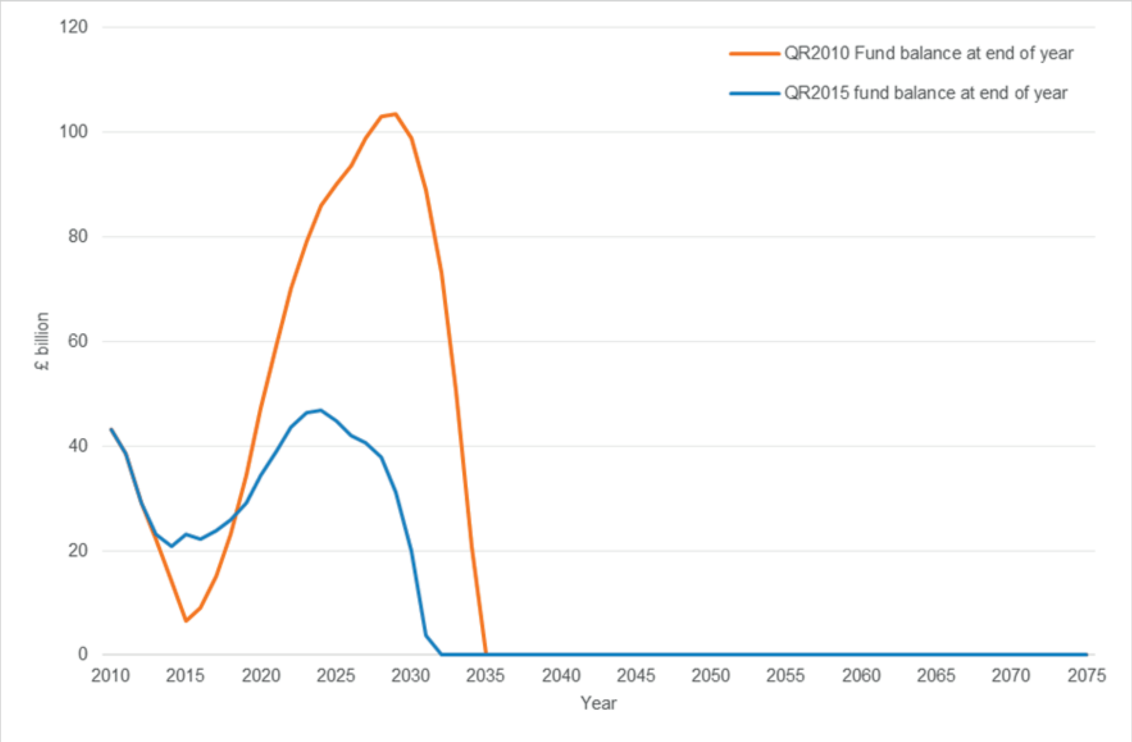


Future projections

3.24 Whilst experience in the period up to 2015-16 has not deviated materially from that assumed in QR 2010, I have also looked at how the projections after 2015-16 compare between this review and QR 2010. In comparing the projections, I have considered the QR 2010 projections which allowed for provisions of the Pensions Act 2014, that is, reflecting the introduction of the new State Pension, so the comparison is on a consistent basis.

3.25 It can be seen in chart 3.9 overleaf that whilst the Fund balance at 2015-16 is higher in this review than in the QR 2010 projections, the Fund balance was expected to increase much more quickly in the QR 2010 projections before tailing off. As a result the Fund balance is expected to reduce to zero, in the base-case projections, around three years earlier in QR 2015 than in QR 2010.

Chart 3.9: Comparison of the base-case projection of the Fund balance from the previous and current Quinquennial Reviews



Economic impacts

3.26 The slower projected increase in the Fund for this review largely reflects changes in assumptions relating to earnings growth. Specifically:

> This review assumes lower earnings increases (of around 1% pa) for the three years 2016-17 to 2018-19

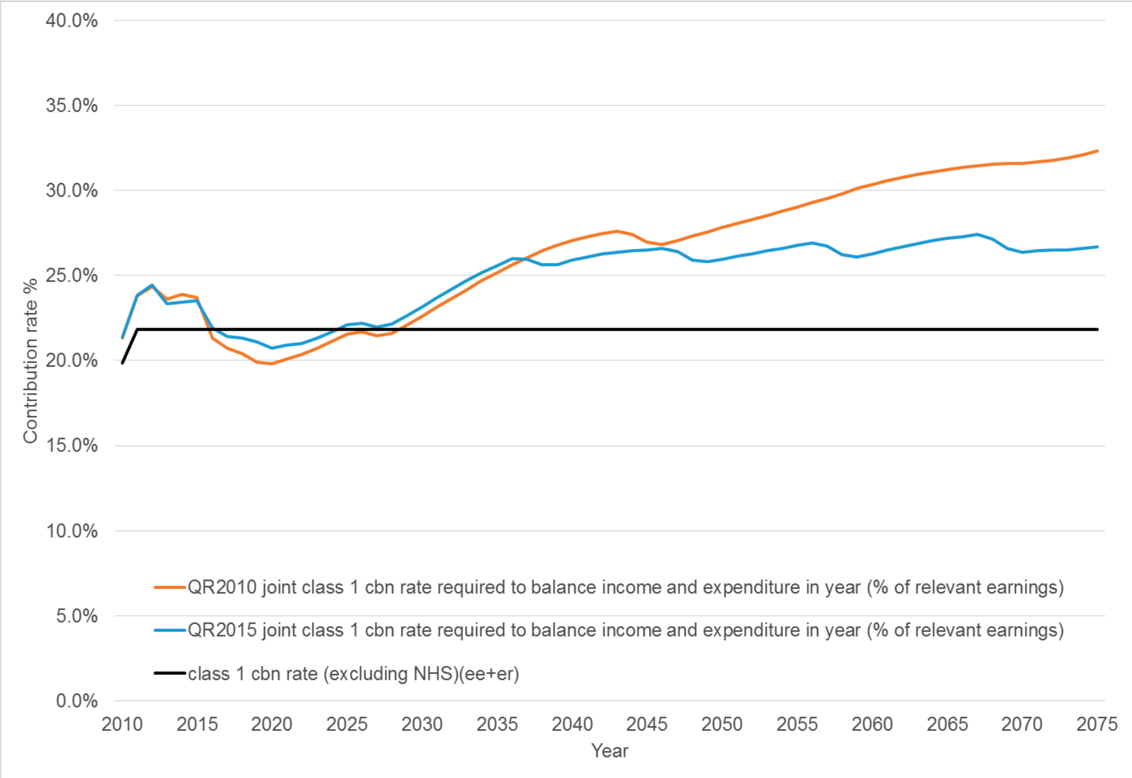
> The period of lower short-term earnings growth is assumed to continue for an additional three years, to 2021-22, for this review

> This review assumes lower long-term earnings growth (down from 4.45% pa to 4.30% pa).

3.27 The lower assumed earnings increases reduce projected contribution income but there is little change in projected benefit expenditure. This reflects projected increases in State Pension benefits being largely unchanged, as the triple-lock guarantee remains at 2.5% and assumed CPI price inflation is not materially different. The combination of lower contribution income but unchanged benefit expenditure means that the Fund is not projected to grow as quickly as was assumed in QR 2010. Similarly, benefit expenditure is projected to exceed contribution income at an earlier date and hence the Fund is projected to reduce to zero sooner.

3.28 In chart 3.10 below the break-even contribution rate for Class 1 contributions is compared between QR 2010 and QR 2015. This shows that in QR 2010 the break-even contribution rates were lower in the short term than projected in QR 2015 and hence result in the quicker growth in the projected Fund in QR 2010. However, over the longer term, the break-even rate is significantly lower in QR 2015 reflecting additional increases in future SPa relative to those allowed for in QR 2010.

Chart 3.10: Comparison of Class 1 break-even contribution rates from previous and current Quinquennial Reviews



3.29 Whilst the break-even contribution rates in QR 2015 are lower than those in QR 2010 over the long term, this does not occur until after it is projected that the Fund will have reduced to zero. Further, the lower break-even rates in QR 2015 are still in excess of existing Class 1 NIC rates and therefore, additional funding would be needed to finance benefits.

Demographic impacts

3.30 The base-case projections for the current review are based on the Office for National Statistics (ONS) 2014-based principal population projections for Great Britain, and the associated assumptions for life expectancy, fertility and migration. The base-case projections for QR 2010 were based on the ONS 2012-based low migration national projections.

3.31 Overall, the more recent ONS projections improve the position of the Fund, offsetting some of the impact of the lower earnings growth assumptions. The key differences between the population projections used for the reviews are:

> Lower projected life expectancies in the 2014-based projections, reflecting recent mortality rates, which reduces the period of time for which benefits are payable

> Higher assumed net international migration to the UK, reflecting both a change in the ONS principal projections and the move from the low migration projections (used for QR 2010) to the principal projections, which increases the working age population in the short term and also feeds through to the pensioner population in the longer term

> Offset slightly by lower assumed completed family size (a measure of fertility) for Scotland, which affects the growth in population numbers and hence slightly reduces NIC receipts during the projection period.

3.32 Section 4 of this report provides a range of variant scenarios reflecting the variant projections produced by ONS on life expectancy, fertility and migration.

3.33 The most significant impact on the long term break-even contribution rates shown in chart 3.10 above results from the different SPa path assumed in QR 2015 than in QR 2010. As noted in section 2, the assumed SPa increases are based on reaching the long-term intended policy position stated in the Secretary of State for Work and Pensions' report in July 2017.

Overall impact of changes since QR 2010

3.34 The continued low earnings environment provides for lower projected contribution income which restricts the growth of the Fund in the short-term and in turn results in the Fund being projected to reduce to zero more quickly.

3.35 The proposed changes in SPa have a significant impact on future projections of the Fund and break-even contribution rates. SPa policy will be considered as part of regular SPa reviews and therefore actual policy over the long-term could be materially different from the assumptions I have made. Section 4 includes a variant scenario assuming that the longer term policy intention of State Pension age reflecting the aim of up to 32% of adult life to be spent in retirement is implemented from 2040 rather than the slightly slower implementation implied in the base-case projections.

4 Risks and uncertainties

Assumptions

4.1 The base-case Fund projections shown in section 3 depend upon a wide range of assumptions about the future. The results of the projections are particularly sensitive to some of these assumptions, and the likelihood of deviation from the assumptions can vary depending upon the timescale being considered. For example, the likelihood of there being 10% fewer deaths than expected, for those receiving State Pensions, over the next year is much lower than the likelihood of mortality rates being 10% lighter than assumed by the end of the projection period.

4.2 By considering projections of the Fund allowing for alternative scenarios for some of the most significant assumptions, it is possible to get a better understanding of the uncertainty within the future development of the Fund. It might also be possible to identify what actions could be taken to reduce the uncertainty.

4.3 The factors most likely to result in the experience of the Fund deviating from the projections provided are changes in:

- Economic experience
- Demographic experience
- Labour market experience
- Policy or legislation

4.4 Section 5 considers wider factors that may affect the experience of the Fund and the need to consider them when assessing the overall sustainability of the Fund in the long term.

4.5 Below I illustrate the impact on the Fund of varying some of the assumptions in the four areas mentioned above, which are explained further in Appendix C. These variant projections indicate that, whilst these factors can have a material impact on break-even contribution rates and the projected Fund balance, without material changes to benefit or contribution policy, or additional financing such as Treasury Grants, it is unlikely that the Fund balance will remain above zero over the long term without significant changes in the economic outlook or population distribution. However, the variant projections also show that the position at the next QR, due as at 2020, could be materially different to the base-case projections, for example if average earnings increases are materially different to those assumed.

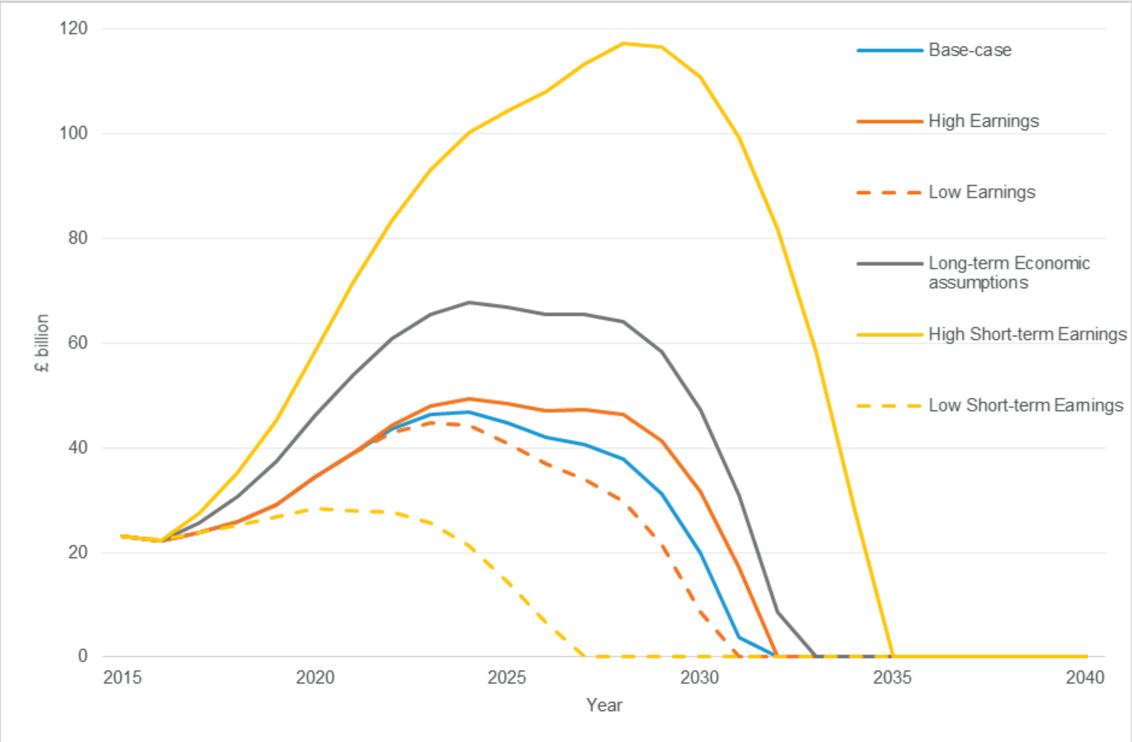
4.6 Appendix F provides details of each of the variant projections at 10-year intervals.

Variant economic assumptions

4.7 The experience of the Fund is very sensitive to sustained periods of high or low real earnings growth. I have considered the effects of relatively large short-term deviations from the base-case assumptions as well as smaller persistent deviations to the long-term earnings assumption. I have also considered the effect of adopting the base-case long-term assumptions throughout the projection period rather than applying short-term assumptions during the initial six years.

4.8 Chart 4.1 below shows that variants with large differences in the short-term earnings assumptions have a significant impact on the Fund balance. However, even where the Fund balance increases significantly faster than the base-case, the balance is still projected to run down to zero by the mid-2030s.

Chart 4.1 – Variant economic assumptions – Projected Fund balance



Variant labour market assumptions

4.9 Those receiving new State Pension benefits receive a certain proportion of the full rate depending on the number of years contributions they have made or been credited with. The average proportion can change over time as working lives change, which may particularly be the case as State Pension age increases. Furthermore, past experience, relating to basic State Pension, can only be used to an extent as eligibility requirements and the provision of credits have also changed over time.

4.10 I have considered two variant scenarios for the average proportion of the full rate of new State Pension that beneficiaries in Great Britain would receive:

> high average proportion of 100% of the full rate, being 4% higher than the assumption adopted for the base-case projections
> lower average proportion of 92% of the full rate, being 4% lower than the assumption adopted for the base-case projections.

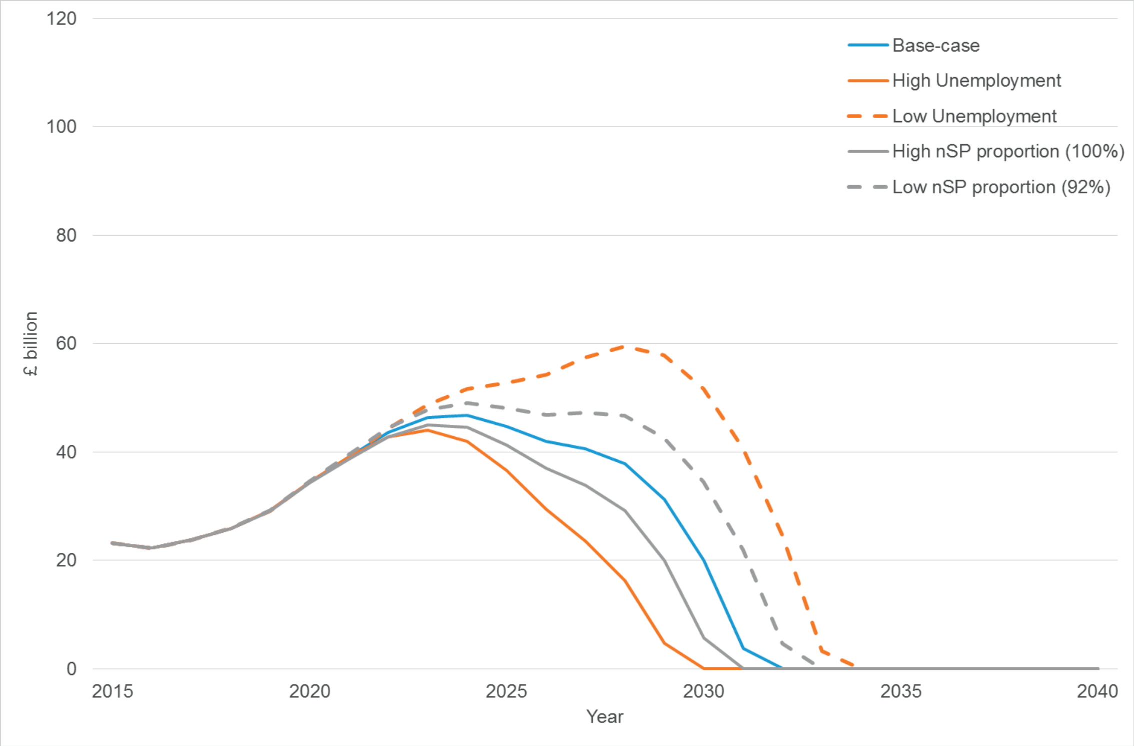
4.11 The Fund projection is also impacted by the assumed level of employment in the population, as this affects the numbers of individuals paying NICs. In our base-case projections I assumed long term unemployment of 5.35% in line with assumptions made by OBR in their January 2017 Fiscal Sustainability Review. For the purposes of illustrating the sensitivity of the Fund projection to the rate of employment I have prepared two variant scenarios:

> high unemployment, which assumes a long-term unemployment rate of 8.0%
> low unemployment, which assumes a long-term unemployment rate of 2.7%

with consistent changes in levels of employment in each case.

4.12 Chart 4.2 overleaf shows the impact of allowing for the four labour market variants over the period from 2015-16 to 2040-41, by which point the Fund balance is expected to have reduced to zero in all cases. As might be expected, the lower the average rate of new State Pension payable, the longer it is before the Fund is projected to reach zero, because lower benefit expenditure occurs. Similarly, the lower the unemployment rate assumed, the longer it is before the Fund is projected to reach zero, because higher levels of NICs are received. However, very large changes would be required in the average proportion of the full rate of new State Pension payable to retirees or in levels of unemployment and employment compared to the base-line assumptions for the Fund to maintain a positive balance throughout the projection period.

Chart 4.2 – Variant labour market assumptions – Projected Fund balance



Variant demographic assumptions

4.13 I have produced a range of variant demographic scenarios reflecting the variant projections produced by ONS, specifically:

> high and low fertility variants assuming long-term completed family sizes of 0.2 children per woman higher or lower than the principal assumption of 1.89

> high and low migration variants for GB which assume long-term annual net migration to GB to be 75,500 people higher or lower than the principal GB assumption of +184,000 per year.

> high and low life expectancy variants assuming annual rates of mortality improvement from mid-2039 to be 1.2% higher or lower than the principal assumption, which converges to 1.2% for most ages in 2039 and remains constant thereafter

4.14 I have also produced projections for combinations of these scenarios, adopting the ONS combined 'old' and 'young' population scenarios whereby:

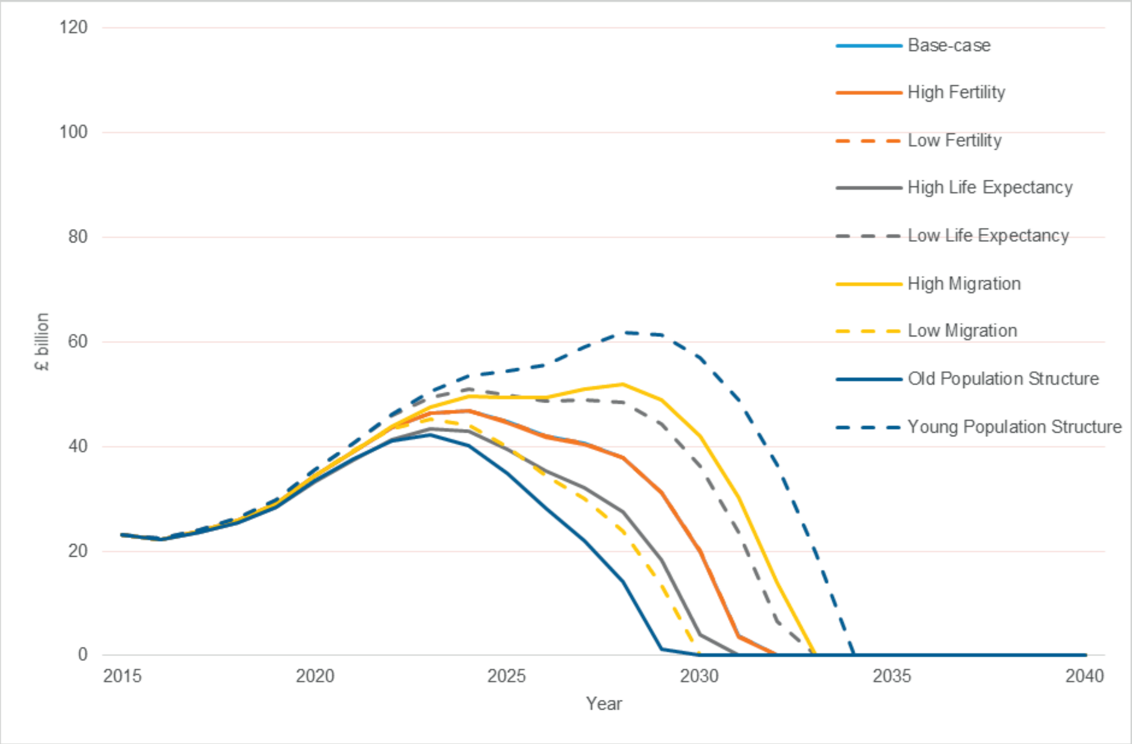
> the 'Old Population' variant adopts low fertility, high life expectancy and low net migration assumptions

> the 'Young Population' variant adopts high fertility, low life expectancy and high net migration assumptions

4.15 In these scenarios I have not made any allowance for potential alternative changes in SPa, which may be announced as part of future State Pension age reviews in response to changes in projected life expectancy, ie SPa is assumed to be the same as the base-case. Any changes to the future pattern of SPa increases would alter the benefit expenditure from the Fund and therefore change the projected balance. One particular example of a change in the future pattern of SPa is shown in paragraphs 4.31 to 4.35.

4.16 Chart 4.3 below illustrates the projected Fund balance for these variants over the period from 2015-16 to 2040-41, by which point the Fund balance is expected to have reduced to zero in all cases. In this chart the base-case, high fertility and low fertility projections follow an almost identical path as the Fund is projected to reach zero before the impact of any difference in fertility rates is seen in the level of NIC receipts or benefit expenditure.

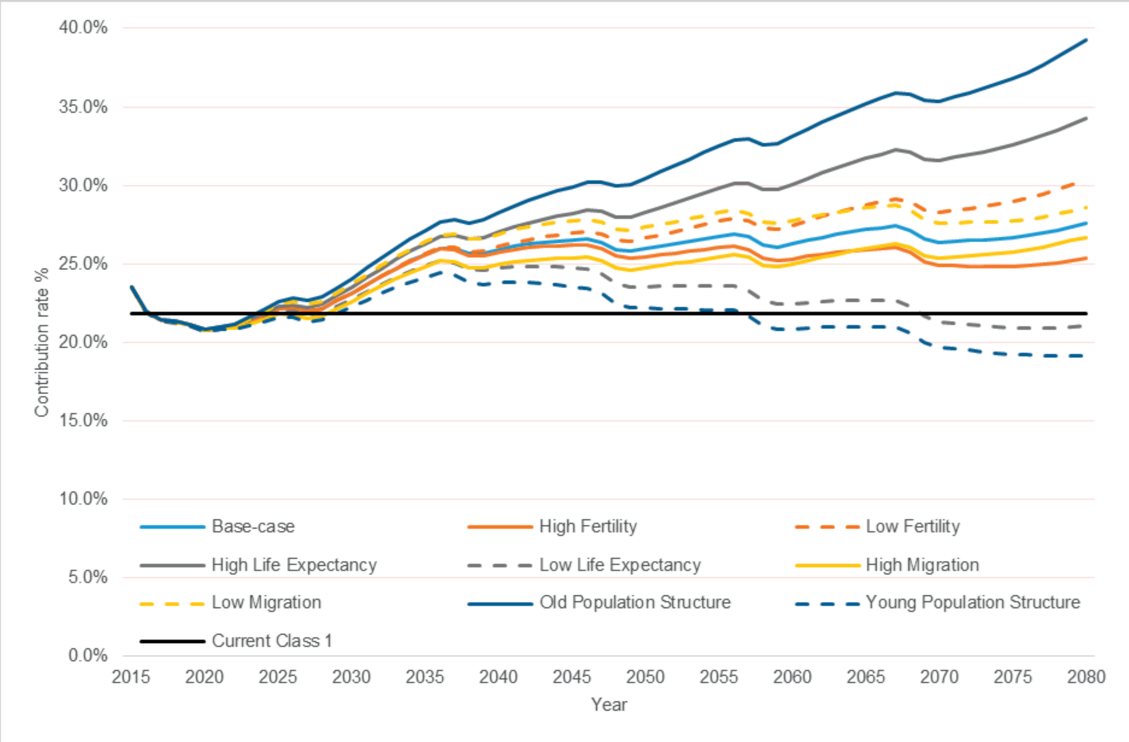
Chart 4.3 – Variant demographic assumptions – Projected Fund balance



4.17 The chart also highlights that even with significantly altered fertility, migration and life expectancy assumptions, eg the young population scenario, the Fund is still projected to run down to zero fairly rapidly.

4.18 There is, however, a slightly different picture if break-even contribution rates are considered. Chart 4.4 overleaf shows the break-even rates and illustrates the wide dispersion arising from these variants.

Chart 4.4 – Variant demographic assumptions – Class 1 break-even contribution rate



4.19 The chart indicates that variation in life expectancy would be expected to have a more significant effect on the Fund than fertility or migration by the end of the projection period. However, this is a reflection of the both the delay before a change has a material impact (eg fertility rates do not affect pension benefit expenditure within the projection period) and that the variant life expectancy assumptions include a more significant deviation from the base-case than for the other demographic assumptions given the significant uncertainty around projecting future life expectancy.

4.20 I have also considered narrower life expectancy variants, assuming future mortality improvements are 0.2% higher or lower than the principal assumptions, consistent with analysis in my SPa Report. When considering the projected Fund balance these narrower variants appear to have little impact as the projected Fund balance (without allowance for Treasury Grants) also reaches zero before the impact becomes observable. However, considering the break-even contribution rate does indicate that the impact of such narrower mortality variation is broadly similar to that seen under the fertility and migration variants, around a 1% change in the break-even contribution rate by the end of the projection period.

4.21 The chart also highlights the different structure of the variant assumptions, whereby the effect of the variant fertility assumptions increases over time but the effect of the variant migration assumptions provide for largely consistent differences throughout the projection period.

4.22 It is also worth noting that the level of migration has an immediate impact on the level of NIC receipts to the Fund, and a longer term impact on the level of benefit expenditure. Therefore, migration can have a noticeable impact on the Fund balance in the short term. The migration variants shown are based on a fixed change to the long term assumed level of migration. However, if migration rates in the period to the next QR are significantly higher or lower than expected, this could potentially have a larger impact on the Fund balance in the short term than indicated in chart 4.3.

4.23 For the low life expectancy variant, and by association the 'young population' variant, the break-even contribution rate is projected to fall below the current Class 1 contribution rate towards the end of the projection period. This suggests that, under these scenarios, the Fund could become sustainable again in future but the issue arises about how the Fund would be supported in the interim period. As noted above, the SPa assumptions underlying these projections are unchanged from the base-case projections. If there were no future improvements in life expectancy, as assumed in these variant scenarios, it might be expected that there would also be no, or fewer, future increases in State Pension age and therefore the break-even rates for these variants might not in practice fall below the current Class 1 contribution rate.

4.24 A corresponding issue arises in respect of the high life expectancy and 'old population' variants, whereby State Pension age might be expected to increase in response to the higher life expectancy, thus reducing the contribution rate required to balance income and benefit expenditure.

4.25 In practice, there would naturally be some lag between higher or lower life expectancy being projected and changes to State Pension age being implemented.

Variant policy initiatives

4.26 The variant projections shown above are based on altering the expected economic or demographic experience in the Fund. However, it is also possible that changes might be made to policy relating to benefits that would alter the projected benefit expenditure. I have considered two variant policy approaches covering:

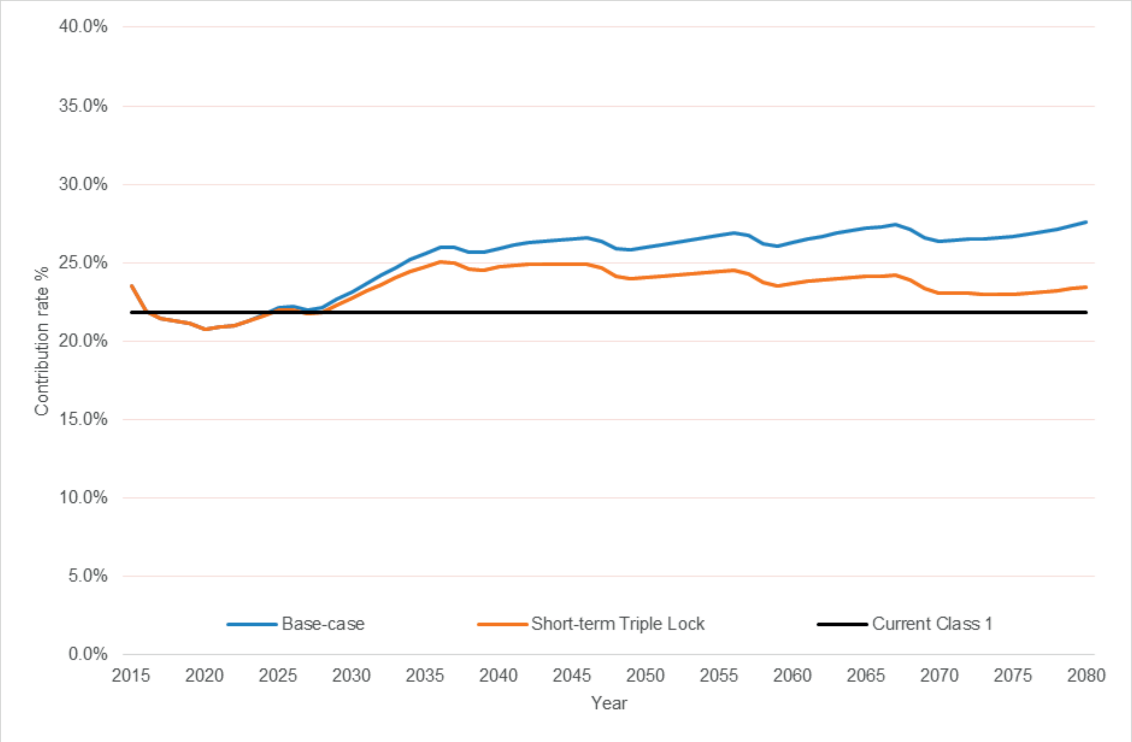
- up-rating of State Pension benefits
- State Pension age

Up-rating of State Pension benefits

4.27 State Pension benefits are currently up-rated in line with the triple-lock policy, which provides for increases at the higher of growth in average earnings, price increases or 2.5%. Consistent with the OBR, and as described in paragraph 3.13, I have allowed for increases in line with triple lock by adding a margin of 0.34% a year to the long-term earnings growth assumption.

4.28 I have considered a scenario whereby increases in line with the triple-lock policy are only provided until the end of the current Parliament, that is, increases in benefit rates from April 2023 would revert to increasing in line with earnings, which is the minimum increase currently required under legislation[3]. In this scenario the Fund projection is little changed, with the Fund projected to reach zero a year later than in the base-case. However, the break-even contribution rate provides further insight into the potential long term impact of the triple-lock policy.

Chart 4.5 – Variant up-rating assumptions – Class 1 break-even contribution rate



4.29 In chart 4.5 above the reductions in the break-even contribution rates when SPa increases are apparent. However, despite this the base-case shows a gradual increase in the break-even contribution rate over time. In contrast, reverting to earnings to uprate State Pension benefits over the long term sees the break-even contribution rate reduce slightly over time, although it still remains above the current NIC rate during the projection period.

4.30 The actual impact of the triple-lock policy could be significantly different from either of the two illustrations above. As the policy involves benefit increases at the greatest of earnings growth, CPI inflation or 2.5%, whereas NIC receipts largely increase with earnings growth, periods of particularly low earnings growth could mean the financial position of the Fund is weakened.

[3] Section 150A of Social Security Administration Act 1992
http://www.legislation.gov.uk/ukpga/1992/5/pdfs/ukpga_19920005_300617_en.pdf

State Pension age

4.31 State Pension age policy is expected to be considered as part of regular SPa reviews and therefore actual policy over the long-term could be materially different from the assumptions I have made.

4.32 The recent Secretary of State for Work and Pensions report on SPa[4] indicated an expected increase in SPa from 67 to 68 during 2037-39 and a longer term policy intention for SPa to be set to reflect an aim of up to 32% of adult life to be spent in retirement. The base-case shown in Section 3 makes an assumption about how this could be achieved, but policy in this area has not been confirmed.

4.33 I have considered a variant scenario assuming that the longer term policy intention, of setting SPa to reflect the aim of up to 32% of adult life being spent in retirement, is implemented from 2040. Specifically, this provides for SPa increases in line with the following timetable:

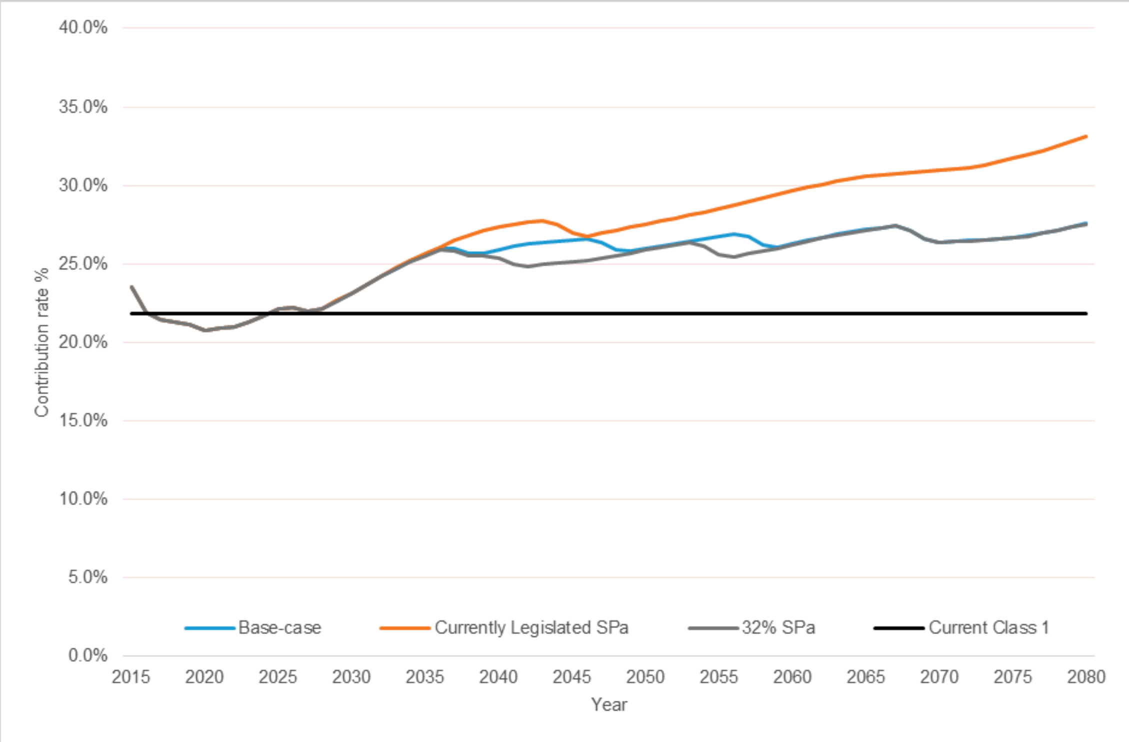
Period	SPa change
2018-2020	65 to 66
2026-2028	66 to 67
2037-2039	67 to 68
2040-2042	68 to 69
2054-2056	69 to 70
2068-2070	70 to 71

4.34 Accelerating the timetable for increasing SPa relative to the base-case scenario does not change the projection of the Fund balance as the Fund is projected to reach zero before the earlier increase in SPa from 68 to 69 is scheduled to occur. Therefore, it is more useful to consider the impact of the accelerated timeline on the break-even contribution rate.

4.35 Chart 4.6 overleaf shows the break-even contribution rates for the current legislated SPa path, the base-case SPa path and the accelerated SPa path. The accelerated path reduces the break-even contribution rate earlier as a result of moving forward the SPa increase from 68 to 69. However, over the long term the accelerated SPa path ends up matching the timeline in the base-case and therefore the break-even rate at the end of the projection period is the same. In all three cases however the long term break-even contribution rate is higher than the existing NIC rate.

[4] https://www.gov.uk/government/collections/state-pension-age-review

Chart 4.6 – Variant SPa assumptions – Class 1 break-even contribution rate



Treasury Grant

4.36 The above variant projections have focussed on the projected Fund balance, ignoring any future Treasury Grants, and the break-even contribution rate. However, it is also useful to consider the extent to which Treasury Grants can be used to support the financial position of the Fund.

4.37 In the base-case projection, Treasury Grants up to the current maximum allowable are expected to be insufficient towards the end of the projection period (2060 onwards) to maintain a positive Fund balance. Hence, in the variant projections that result in higher break-even contribution rates Treasury Grants would also need to exceed the current maximum.

4.38 There are several variant projections with lower break-even contribution rates than the base-case, in particular the low life expectancy and short-term triple-lock variants. Although, both of these variants have materially lower break-even contribution rates than the base-case, the rates are still in excess of the current NIC rates.

4.39 Under both of these variant projections Treasury Grants are projected to be required from 2030-31. However, the lower projected benefit expenditure for these variants means that the Treasury Grants required remain within the current 17% of benefit expenditure maximum during the projection period. Therefore, if experience followed these assumptions then the existing arrangements for NICs and Treasury Grants could be used to maintain a positive Fund balance.

Multiple/other changes

4.40 Most of the variant projections illustrated above consider a single change to the assumptions underlying the projections. In practice there may be several factors which deviate from the assumptions made in the base-case and hence the Fund will be affected by a combination of the individual impacts.

4.41 The cumulative impact of several changes is not as simple as adding the impacts of each individual change as there will be multiplicative impacts in some cases and offsetting impacts in others. However, the direction of each change relative to the base-case provides insight into the likely overall impact.

4.42 It should also not be assumed that this section provides a comprehensive list of all the changes that might occur, or sets any upper or lower bounds on their impacts. It is possible that experience could deviate more than illustrated above, or that multiple factors could result in significant changes in the Fund position.

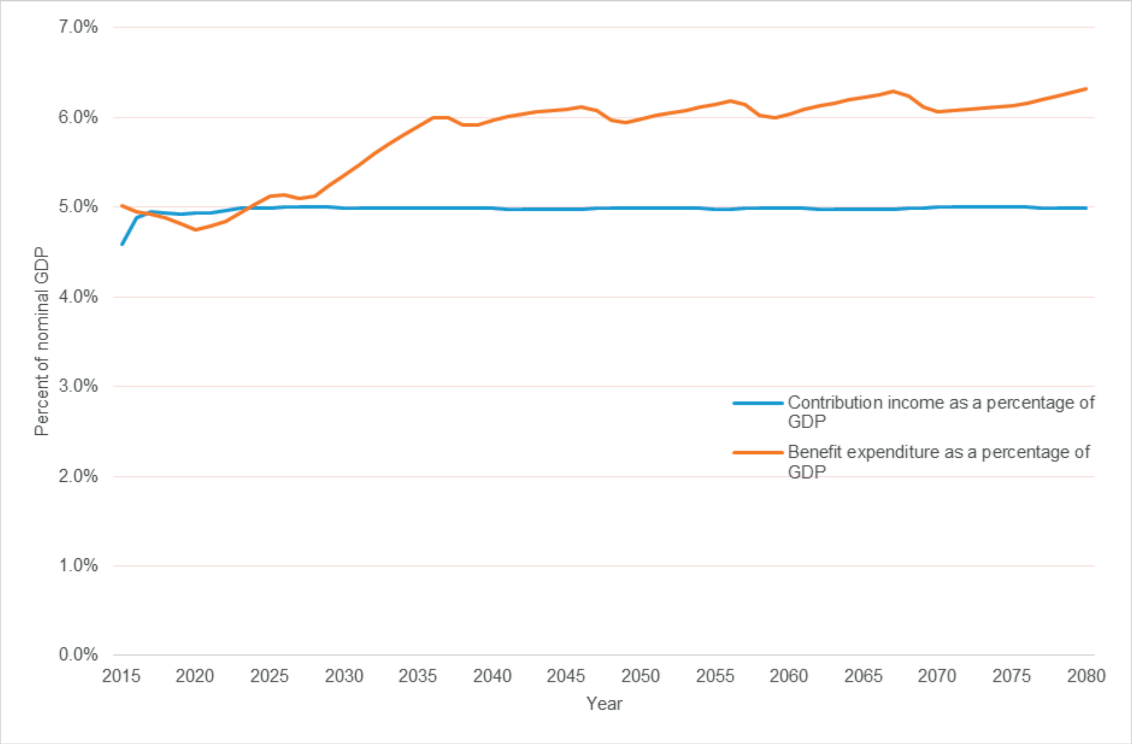
5 Other issues

Government spending

5.1 This report has been prepared to consider the future development of the National Insurance Fund. It does not consider the underlying contributions and expense as part of wider Government income and expenditure. Therefore, the comments in Section 3 and 4 are based on the Fund in isolation.

5.2 Chart 3.5 shows the shortfall between NIC receipts and benefit expenditure as a percentage of GDP, to provide some indication of the relative affordability of the current benefits. Chart 5.1 below illustrates this in a different way by showing total benefit expenditure and NIC receipts as a percentage of GDP over the projection period.

Chart 5.1 – Projected NIC receipts and benefit expenditure as a percentage of GDP



5.3 This indicates that NIC receipts are projected to be a broadly stable proportion of total GDP (about 5%), as would be expected if NIC rates remain constant and hence are a roughly stable percentage of population earnings. However, benefit expenditure is projected to increase from around 5% to over 6% of GDP during the projection period, with the majority of the rise occurring between the late 2020s and the late 2030s, in the period between the assumed State Pension age (SPa) increase to 67 and the SPa increase to 68, and when large cohorts of people born in the early 1960s reach SPa.

5.4 Some of the variants in Section 4 result in different levels of benefit expenditure over the projection period. However, those scenarios might also have implications for GDP experience and the level of tax receipts Government might receive. Therefore, the comparison of NIC receipts and benefit expenditure to GDP has only been considered for the base-case projection.

Demographic projections

5.5 The projections in this report have been based on the ONS 2014-based principal population projections for Great Britain, and the associated variant projections. I am aware that new ONS 2016-based population projections are due to be released on 26 October 2017.

5.6 The ONS 2014-based projections are those that were used in my SPa report, which was part of the evidence base for the report by the Secretary of State for Work and Pensions on SPa. Therefore, using the ONS 2014-based projections provides greater consistency with the assumed SPa path adopted in this report.

5.7 The demographic variants in Section 4 include illustrations of the impact of relatively large changes in the demographic assumptions, which may be expect to be greater than the difference seen in moving from the ONS 2014-based principal projections to the 2016-based equivalents. The Section 4 variants indicate that these demographic changes do not change the main outcome of the projections, which is that the Fund is expected to run out before the 2040s without financial support from Treasury Grants.

5.8 Changes in demographic assumptions typically take longer to affect projections of the Fund than changes in economic assumptions. The exception to this can be the assumption relating to migration, which can have a more immediate effect on projected contribution income. As noted in paragraph 4.22 migration experience can be quite variable and therefore the position at the next QR might be quite different to that current assumed.

Benefit levels

5.9 The calculations within the report have been carried out allowing for the existing benefit levels and stated policy on future increases. The short-term triple-lock scenario illustrates one variation to this whereby the existing triple-lock policy on basic and new State Pension increases ends after 2021-22. However, the report does not seek to comment on the sufficiency of the level of benefits being provided, and whether higher or lower levels would be appropriate.

5.10 Furthermore, the calculations assume the current eligibility criteria remain, whereas these could be altered in the future. Again, no comment has been made regarding the suitability of the current eligibility criteria or any alternatives.

5.11 Both benefit levels and eligibility criteria could make a material difference to the benefit expenditure from the Fund and hence on its long term sustainability.

Northern Ireland Parity Payment

5.12 Section 88(3) of the Northern Ireland Act 1998 (as amended) requires HMRC to make 'any necessary adjustments between the [Great Britain] National Insurance Fund and the Northern Ireland National Insurance Fund'. It has been agreed, since the 1970s, that a system of parity payments should be made to ensure the balance of the Great Britain and Northern Ireland Funds remains broadly in proportion to the size of the working age population in each area.

5.13 Based on the results of the 2011 census, it has been determined that the Northern Ireland Fund should be maintained at 2.87% of the joint balance of the two Funds. Over the last ten years this has involved transfers of between 0.3% and 3.3% of the start-year Fund balance to the Northern Ireland Fund. For the purposes of the base-line projection I assumed that transfers equivalent to 2.5% of the Fund will be made each year to the Northern Ireland Fund.

5.14 Changing demographics and labour forces in the two locations may alter the extent to which transfers are required in future and the size of any such transfers. However, even large changes to the parity payment, for example assuming a constant 10% transfer from the Fund to Northern Ireland, or a 5% transfer in the reverse direction, only alter the point at which the Fund is projected to reach zero by a few years. It is therefore unlikely that the parity payment arrangements will materially change the sustainability of the Fund.

Level of the National Insurance Fund

5.15 In order to ensure a reasonable working balance in the Fund, the convention has been to consider the payment of a Treasury Grant if the Fund balance is projected to fall below 1/6th of annual benefit expenditure (approximately two months' benefit expenditure). Should a Treasury Grant be required it would be limited to a maximum of 17% of estimated benefit expenditure in the relevant year. Therefore, when benefit expenditure begins to exceed NIC receipts by more than 17% the sustainability of the Fund is at risk. The Treasury Grant figures shown in section 3 have been prepared assuming that Treasury Grants calculated as necessary without the 17% limit have been paid in all previous years.

5.16 The 1/6th level is currently used as a minimum below which the balance of the Fund should not drop, and hence Treasury Grants will be paid to the Fund if it is expected that the balance will drop below 1/6th of annual benefit expenditure. However, this means the Fund will retain a balance not expected to be used. It may be worth exploring whether 1/6th, or some other level, could be used as a trigger point to obtain a Treasury Grant, ie once the Fund balance reaches the trigger the process to receive a Treasury Grant is started. This would mean part of this balance is likely to be used before the Treasury Grant is received.

5.17 Further analysis could be undertaken to explore this alternative approach, which may provide a more effective process.

Monitoring

5.18 As the Fund balance is small relative to the level of annual NIC receipts and benefit expenditure, short-term volatility can have a material impact on the Fund position from year to year. HMRC monitor the Fund balance on a regular basis, and this information is used to determine whether a Treasury Grant is required. Additionally, the Government Actuary produces annual reports that include five year projections of the Fund[5] and Quinquennial Reviews, such as this one, that include long-term projections. These all provide regular information on the development of the Fund.

5.19 Other metrics could also be monitored to provide an early warning of potential shortfalls arising, or deviations from previous projections. On a monthly basis, ONS produce statistics on the level of average earnings and how they are changing over time, together with statistics on the unemployment rate. These are significant factors in the level of NICs received and hence identifying when earnings increases are particularly low, and/or the unemployment rate is rising, might help indicate risks to the level of NIC receipts.

5.20 Benefit expenditure is generally much more stable than NIC receipts in the short-term. However, it may be useful to consider metrics that might identify long-term trends that may create challenges to the sustainability of the Fund. In the longer term, key drivers of change in the finances of the Fund are likely to be demographic, with the key factors being mortality rates, birth rates and levels of migration. Where any or all of these rates start to reduce (or reduce more quickly than anticipated) this is likely to indicate trends that may reduce NIC receipts, with a lesser, or delayed, impact on benefit expenditure. At the extreme, this could even lead to reduced NIC receipts and increased benefit expenditure.

5.21 Analysis could also be undertaken to investigate the effect of potential policy interventions, or additional or alternative financing, on the future development of the Fund.

[5] https://www.gov.uk/government/publications/report-to-parliament-on-the-2017-re-rating-and-up-rating-orders

Part 2 – Appendices

Appendix A: National Insurance Fund

Description of the NIF

A.1 The National Insurance Scheme was established on 5 July 1948 to provide retirement pensions, unemployment benefits, sickness benefits, and other benefits in cases where individuals meet the contribution and other qualifying conditions.

The main benefits currently paid by the Fund are:

- New State Pension
- Basic and Additional State pension
- Employment and Support Allowance (contributory only)
- Bereavement Benefits
- Jobseeker's Allowance (contributory only)
- Maternity Allowance.

A.2 The payment of these benefits is generally met from National Insurance contributions (NICs) which are mainly collected from employees, their employers and the self-employed. HMRC record the contributions against individuals' contribution records which determine entitlement to benefits. HMRC is also responsible for the operation of the Fund, for example, preparing annual accounts.

A.3 Entitlement to benefits is determined by the claimant satisfying certain qualifying conditions. The Department for Work and Pensions (DWP) has overall responsibility for the award and payment of most benefits payable from the Fund.

A.4 The Fund is financed in such a way that the bulk of contributions paid in a year are used to meet benefit expenditure in the year, so it can be considered to operate broadly on a pay-as-you-go (PAYG) basis, with no substantial fund built up. The Fund has no borrowing powers, so a working balance is necessary to guard against unexpected falls in contribution income or increases in outgo. The current practice is to maintain a working balance in the Fund of at least 1/6th of annual benefit expenditure. This is discussed in the main body of the report. Where necessary, a Treasury Grant of up to 17% of estimated benefit expenditure in any year may be paid into the Fund under the Social Security Act 1993.

The calculations in this report

A.5 The calculations in this report have been carried out adopting the provisions of legislation affecting the Fund including those in the Pensions Act 2014. Key elements of this Act which affect the Fund are:

- the introduction of the new State Pension
- the cessation of contracting-out and hence contracting-out rebates
- the acceleration of the increase of State Pension age (SPa) to 67 between 2026 and 2028
- periodic reviews by the Secretary of State for Work and Pensions of the rules about SPa, with the Secretary of State's first such report published on 19 July 2017.

Benefits

A.6 The following section provides an overview of the benefits provided by the National Insurance Fund and other expenditure which are included in the projections provided in this report. It does not provide full details of all the benefit rules, and eligibility criteria, which are set out in statute[6].

A.7 The most significant elements of benefit expenditure relate to Retirement Benefits, that is, those paid above SPa, specifically, new State Pension, basic State Pension and Additional State Pension benefits. A range of benefits are also payable to those at working-ages, ie below SPa, but these constitute a much smaller proportion of overall benefit expenditure.

State Pension age (SPa)

A.8 Under current legislation, SPa is being equalised for men and women by December 2018. SPa will then be increased to 66 over the period December 2018 to October 2020. The Pensions Act 2014 brought forward the increase in SPa to 67 to occur between 2026 and 2028. The increase in SPa to 68 between 2044 and 2046 as legislated for in the Pensions Act 2007 was not changed.

A.9 The Pensions Act 2014 also introduced the requirement for regular reviews of the SPa, at least every 5 years. The first review was carried out in early 2017; the Secretary of State's report was published on 19 July 2017 and indicated an expected increase in SPa from 67 to 68 should be brought forward to occur over the period 2037 to 2039. However, it is intended a further review will be carried out before any change is legislated for. The report also sets out a longer term policy intention for SPa to be set to reflect an aim that up to 32% of adult life (measured from age 20) be spent in retirement.

[6] Social Security Contributions and Benefits Act 1992
http://www.legislation.gov.uk/ukpga/1992/4/contents/enacted

Retirement Benefits

New State Pension

A.10 The new State Pension was introduced for those reaching State Pension age (SPa) from 6 April 2016. This is a single-tier flat-rate pension. For the year 2017-18, the full-rate new State Pension is £159.55 per week. New State Pension benefits are currently uprated in line with the triple-lock policy.

A.11 To receive the full rate of new State Pension a person needs to have at least 35 qualifying years, that is years for which National Insurance contributions have been paid (through employment, self-employment or voluntarily) or credits have been received. Proportionately reduced benefits are payable for shorter qualifying periods. However, those who have not earned a minimum of 10 qualifying years will not be entitled to any new State Pension. Contributions paid in countries with which there is a reciprocal social security agreement may be taken into account in qualifying for new State Pension benefits.

A.12 Individuals generally only receive a new State Pension based on their own contribution record. There are no provisions for an individual's spouse or civil partner to derive or inherit new State Pension benefits in respect of an individual's contribution record from 6 April 2016 onwards. Similarly, there is no provision for pension sharing of the new State Pension, except in respect of transitional amounts attributable to an individual's pre-6 April 2016 contribution record.

A.13 It is possible to be awarded and to receive the new State Pension while resident outside the United Kingdom, provided sufficient contributions have been paid or credited, and to continue to receive new State Pension on emigration from the United Kingdom after SPa. Annual increases after award or emigration are not paid except where the recipient lives in an EEA country, Switzerland or a country which has a reciprocal social security agreement with the United Kingdom that specifically provides for up-rating.

A.14 People who do not claim their retirement pension at SPa will be awarded higher pensions when they subsequently claim. The increase is 1/9th of 1% for each week of deferment with no maximum period of deferment.

A.15 Transitional arrangements apply for those who paid contributions under the previous system. Some details of the transitional arrangements are provided in paragraphs A.35 to A.40.

Basic State Pension

A.16 Those who reach SPa before 6 April 2016 are entitled to the basic State Pension.

A.17 The basic State Pension is also a flat-rate pension based on qualifying years and is currently uprated in line with the triple-lock policy. To qualify for the full basic State Pension a person needs to have achieved at least 30 qualifying years, with proportionately reduced benefits payable for shorter qualifying periods.

A.18 From April 1978, the number of qualifying years could be adjusted such that an individual would be credited for periods spent caring for children or disabled persons, up to a maximum of 22 qualifying years.

A.19 As for the new State Pension, contributions paid in EEA countries and Switzerland and in countries with which there is a reciprocal social security agreement may be taken into account in qualifying for a pension. It is also possible to be awarded and to receive the basic State Pension while resident outside the United Kingdom, provided sufficient contributions have been paid or credited, and to continue to receive basic State Pension on emigration from the United Kingdom after SPa. Annual increases after award or emigration are not paid except where the recipient lives in an EEA country, Switzerland or a country which has a reciprocal social security agreement with the United Kingdom that specifically provides for up-rating.

A.20 People who did not claim their retirement pension at SPa will be awarded higher pensions when they subsequently claim. For those who reached SPa before April 2005 the increase was 1/7th of 1% for each week of deferment up to a maximum of five years. For those who reached SPa after April 2005, the increase is 1/5th of 1% for each week of deferment with no maximum period of deferment and those who deferred for one year or more had a choice about whether to receive these payments of extra retirement pension or a one-off lump sum instead.

A.21 A basic State Pension payable on an individual's own contribution record was referred to as a Category A pension. The basic State Pension also included provisions for an individual to 'derive rights' or inherit benefits based on their spouse's contribution record.

A.22 In certain circumstances married men or women and civil partners, who reached SPa before April 2016, can increase their basic State Pension benefit by using their spouse's or partner's contribution record subject to certain maxima.

A.23 A widow, widower or surviving civil partner who reached SPa before April 2016 may receive a Category B pension at the full standard rate. The Category B pension can be added to any Category A pension based on the widow, widower's or surviving civil partner's own contribution record subject to the maximum for a single person.

A.24 Divorced persons, those who had their civil partnership dissolved and those widowed under SPa could take into account contributions paid by the former spouse or civil partner up to the time of divorce, dissolution or death instead of their own contributions in the same period, if that would lead to a more favourable entitlement to basic pension on their own contribution record, provided they had not remarried or formed a new civil partnership before reaching SPa.

Additional State Pension (SERPS and State Second Pension)

A.25 Employees who paid Class 1 National Insurance contributions between April 1978 and April 2016 also accrued entitlement to an earnings-related Additional State Pension.

A.26 These entitlements accrued based on earnings between specified limits, which were revalued in line with the increases in the general level of earnings, up to the year before reaching SPa. Up until April 2002, Additional State Pension accrued under the State Earnings Related Pensions Scheme (SERPS). From 6 April 2002, Additional State Pension accrued as State Second Pension. The accrual rates applying and the relevant earnings bands changed over time and provisions were made to provide credits for qualifying carers, people with long-term disabilities and low earners. In some cases transitional arrangements were put in place to reflect the changes in the applicable accrual rates.

A.27 SERPS originally provided for a widow or widower to inherit up to 100% of their late spouse's Additional State Pension, subject to a cap on the total amount of SERPS an individual can receive, including both their own SERPS pension and any inherited SERPS pension.

A.28 For deaths occurring from 6 October 2010 the maximum percentage of Additional State Pension which can be passed on to a surviving spouse or civil partner is 50%, subject to the same overall limit on the total amount of SERPS. Transitional arrangements, in respect of contributors reaching, or expected to reach, SPa between October 2002 and October 2010, provide for a maximum up to 90%. A similar arrangement applies in respect of civil partnerships from 5 December 2005.

A.29 The State Second Pension provides for surviving spouses or civil partners to inherit up to 50% of their spouse's State Second Pension, again up to the same overall limit.

A.30 There was provision for employees who were members of occupational pension arrangements which met specified criteria to be contracted-out of SERPS/S2P. These employees, and in most cases their employers, paid reduced rates of National Insurance contributions, or received a payment of part of their contributions, on the band of earnings (contracted-out rebate). In turn, either Additional State Pension wasn't accrued during the relevant period, or the amount of Additional State Pension accrued was subject to a contracted-out deduction (COD). CODs are also deducted from relevant benefits to widows, widowers and surviving civil partners.

A.31 The system of contracting out changed from April 1997 and again in April 2002 in order to take into account the introduction of S2P.

A.32 Employees not contracted-out under an occupational pension scheme could also choose to contribute to a personal pension arrangement that was approved for the purposes of contracting out. In this case, the individual and their employers paid full-rate National Insurance contributions and a rebate was subsequently paid by the State into the personal pension arrangement chosen by the individual, equal to the contribution rebate for contracted-out members of occupational pension schemes.

A.33 Contracting-out for occupational and personal pension schemes on a money purchase basis was abolished from April 2012. Members of such schemes instead build up entitlement to S2P from that date and paid the full rate of National Insurance contributions. Contracting-out on a salary-related basis ceased from April 2016 with the introduction of the new State Pension and the discontinuance of the Additional State Pension system.

A.34 Additional State Pension benefits are currently uprated in line with CPI.

New State Pension transition arrangements

A.35 Under the new State Pension system, basic State Pensions and Additional State Pensions in respect of those who reached SPa before 6 April 2016 will continue to be payable. As there is no longer an Additional State Pension to contract out of, there are no contracting-out rebates.

A.36 For those who reach SPa from April 2016, the new State Pension transition arrangements convert pre-2016 National Insurance records into a new State Pension 'starting amount'.

A.37 An individual's National Insurance record is valued using:

- the new State Pension rules as April 2016, with a deduction applied if the individual had previously been contracted out of the Additional State Pension, reflecting the fact that they had paid lower National Insurance contributions whilst they had been contracted out.
- the rules of the pre-2016 system.

A.38 The higher of these two values provides the starting amount.

A.39 Individuals with a starting amount which was less than the full level of the new State Pension are able to increase their new State Pension up to the full level, at the rate of 1/35th of the full rate of each additional qualifying year from April 2016 up to SPa. Individuals with a starting amount which was greater than the full level of the new State Pension will receive the difference between their starting amount and the full new State Pension as an additional 'protected payment'. Protected payments are paid alongside the new State Pension.

A.40 Unlike the full-rate new State Pension, which is currently uprated in line with the triple-lock policy, protected payments are revalued in line with CPI between April 2016 and SPa and uprated in line with CPI in payment. Although the new State Pension does not include provisions for derived rights or inheritance benefits for an individual's spouse or civil partner, dependants may be able to inherit 50% of a contributor's protected payment.

A.41 There is no change to the pre-April 2016 rules on inheriting basic State Pension or Additional State Pension where both members of a couple reached, or would have reached, SPa by April 2016.

A.42 Basic State Pension derived rights are also payable to dependants who reached SPa before April 2016, where the contributor reaches SPa after April 2016, or dies or divorces under SPa and after April 2016. These benefits are only payable in respect of contributions paid before April 2016. (There are some special transitional arrangements for women with an election to pay reduced-rate NICs who reach SPa after April 2016.)

A.43 There are some provisions for Additional State Pension to be inherited after April 2016:

a) Where the survivor reached SPa before 6 April 2016 and the contributor died under SPa before 6 April 2016, the survivor can inherit a benefit based on the contributor's full contribution record, as described in paragraphs A.27 to A.29.

b) Where the survivor reached SPa before 6 April 2016 and the contributor reaches SPa after 6 April 2016, or dies under SPa after 6 April 2016, the survivor can inherit up to a maximum of 50% of the contributor's Additional State Pension based on the contributor's record up to 5 April 2016

c) Where the survivor reaches SPa on or after 6 April 2016, and the contributor reached SPa before 6 April 2016 or died under SPa before April 2016, the survivor can inherit a benefit, as described in paragraphs A.27 to A.29, provided they married or entered a civil partnership before April 2016.

d) Where the survivor reaches SPa on or after 6 April 2016, and the contributor reaches SPa after 6 April 2016, or dies under SPa after 6 April 2016, the survivor can inherit 50% of the contributor's 'protected payment'.

A.44 In all cases a person who is under SPa when bereaved will not be able to inherit state pension from the deceased spouse or civil partner if he or she re-marries or forms a new civil partnership before SPa.

A.45 As noted above, there is no provision for pension sharing of the new State Pension. However, existing share orders will be honoured and the rules will allow for sharing of protected payments where these are awarded.

Working-age Benefits

Bereavement Benefits

A.46 For those whose husband, wife or civil partner died before 6 April 2017, Bereavement Benefits comprise Bereavement Payment, Widowed Parent's Allowance and Bereavement Allowance. Where death occurred on or after 6 April 2017, Bereaved Support Payment may be payable. In all cases entitlement is based on the contributions paid by or credited to the deceased spouse or civil partner.

A.47 Bereavement Payment is a single lump sum payment payable immediately on bereavement if the surviving spouse or civil partner is under SPa or the deceased spouse or civil partner was under SPa or not entitled to a Category A retirement pension when they died.

A.48 Widowed Parent's Allowance is a regular payment, payable where the surviving spouse or civil partner is under SPa and has at least one dependent child for whom they are entitled to Child Benefit. The amount paid depends on the deceased's contribution record.

A.49 An earnings-related additional spouse's or civil partner's pension is payable along with Widowed Parent's Allowance, in respect of earnings on which contributions were paid by the deceased spouse or civil partner since April 1978. This Additional State Pension is calculated in broadly the same way as SERPS or S2P, but assuming the contributor reached SPa in the year of death. The proportion of the pension inherited by the spouse or civil partner is the same as that for inherited Additional State Pension after SPa.

A.50 Bereavement Allowance is a regular payment payable for 12 months to those aged between 45 and SPa at the time of bereavement. The amount paid depends on the deceased's contribution record and the beneficiary's age at the time of bereavement. The full rate is paid to those age 55 and above, with those aged between 45 and 54 receiving a percentage of the full rate.

A.51 No earnings-related spouse's or civil partner's pension is paid with Bereavement Allowance. However a widow, widower or surviving civil partner who has qualified for Bereavement Allowance, and who has not subsequently re-married, may inherit an Additional State Pension on reaching SPa, based on the deceased spouse's or civil partner's entitlement.

A.52 Widowed Parent's Allowance and Bereavement Allowance cannot be paid at the same time.

A.53 Widowed Parent's Allowance and Bereavement Allowance are not awarded to surviving spouses or civil partners over SPa, rather inherited basic State Pension benefits are payable. A bereavement benefit already in payment at SPa is usually converted to basic State Pension.

A.54 Bereavement Support payments are an initial lump sum payment followed by up to 18 monthly smaller payments. The amount payable depends on whether the recipient has children under age 20 in full-time education or not.

Incapacity Benefit / Employment and Support Allowance

A.55 Incapacity Benefit (IB) was replaced by Employment and Support Allowance (ESA) for new claims from 27 October 2008 for those unable to work due to illness or disability. Those in receipt of IB on that date initially remained entitled to receive IB but there has been a process to review Incapacity Benefit claims to assess if they can be transferred to ESA.

A.56 ESA consists of two phases:

> the assessment phase: a lower benefit rate is paid for the first 13 weeks of a claim while a Work Capability Assessment is undertaken

> the main phase: a higher rate is paid from week 14 for those whose entitlement is confirmed in the Work Capability Assessment.

A.57 There are two groups within the main phase:

- Work-Related Activity Group
- Support Group.

A.58 The Work Capability Assessment determines whether a claimant will join the Work-Related Activity Group or Support Group, or whether they are capable of working without difficulty (and so not entitled to ESA).

A.59 Everyone who satisfies the work capability assessment receives a personal allowance as well as either the work-related activity component or the support component.

A.60 People placed in the Work-Related Activity Group will receive support to help them return to work. People placed in the Support Group are those with serious illnesses or disabilities. They are not expected to return to work.

Contributory Jobseeker's Allowance

A.61 The maximum rate of contribution-based Jobseeker's Allowance (JSA) is £73.10 a week from April 2017 for those aged 25 and over and £57.90 per week for those under 25. From October 2010, in order to be eligible, the claimant must have paid, or have been credited with sufficient National Insurance contributions in one of the two complete tax years before the start of the calendar year of the claim.

Guardian's Allowance

A.62 This allowance, administered by HMRC, is payable at the rate of £16.70 a week per child from April 2017, to a person who provides a home for, or maintains, a child whose parents are both dead. In certain circumstances only one parent needs to have died. There are no contribution conditions but there is a residence test, and the guardian must be entitled to (or treated as being entitled to) Child Benefit in respect of the child.

Maternity Allowance

A.63 Maternity Allowance may be payable to a woman expecting a child who:

> is employed but not entitled to Statutory Maternity Pay
> as a self-employed person, or
> has recently stopped working.

It is payable if the woman has:

> been employed or self-employed for at least 26 weeks, and
> earning over the Maternity Allowance Threshold (MAT), which is £30 a week from April 2017 in at least 13 weeks

in the 66 weeks ending with the week before the expected week of childbirth. The allowance is payable for a maximum of 39 weeks, starting at the earliest 11 weeks before the baby is due.

A.64 The amount payable from April 2017 is £140.98 a week or, if lower, 90% of weekly earnings, with a minimum of £27 a week for those earning at the MAT. Those who are self-employed and pay Class 2 contributions qualify for the standard rate.

Statutory payments

A.65 The following statutory payments are made by employers directly to employees who satisfy the relevant eligibility conditions:

> Statutory Sick Pay (SSP)
> Statutory Maternity Pay (SMP)
> Statutory Adoption Pay (SAP)
> Statutory Paternity Pay (SPP)
> Shared Parental Pay (SShPP) – this replaced Additional Statutory Paternity Pay (ASPP) for babies due or children placed for adoption on or after 5 April 2015.

SSP and SMP replace IB/ESA and Maternity Allowance respectively for most employees.

A.66 For all statutory payments except SSP, employers are able to recover most of the payments made to employees by deductions from the NICs they pay (small employers can recover all). Payments are made from the Consolidated Fund (general taxation revenue) into the Fund equal to amounts deducted by employers by way of statutory payments.

A.67 In the Fund accounts these statutory payments are treated as deductions from contributions and are shown as such in the tables of projected income and expenditure in this review. As this is equal in most years to the transfer from the Consolidated Fund each year, for the purposes of this review, the amounts of these benefits have no effect on the projected finances of the Fund itself in the long term.

Christmas bonus

A.68 The Christmas bonus is an annual tax-free payment, currently £10, paid to people receiving certain benefits in the qualifying week, normally the first full week of December. It is paid to individuals present or ordinarily resident in the UK or any other EEA member state or Switzerland, who are entitled to either retirement pension, Widowed Parent's Allowance, Bereavement Allowance, long-term rate Incapacity Benefit, or main phase of Employment and Support Allowance in the relevant week. The Christmas bonus is also paid to recipients of certain other benefits, such as Disability Living Allowance and war widows pensions, although no allowance has been made for this since, in these cases, the bonus is not paid from the National Insurance Fund.

Other expenditure

Redundancy payments

A.69 Redundancy payments are made where an employee is owed money from an insolvent employer. In this case the employee can make a claim against the Fund for items such as redundancy pay, unpaid wages and unpaid holiday pay. Employees can also make a claim for unpaid pension contributions.

A.70 The administration of the payments and associated recoveries from assets of employers on wind-up is carried out by the Department for Business, Energy and Industrial Strategy (BEIS).

Administration expenses

A.71 Deductions are made from the Fund to cover the expenses incurred in running the Fund including the costs of administering benefits and collecting contributions.

Parity payments

A.72 Section 88(3) of the Northern Ireland Act 1998 (as amended) requires HM Revenue and Customs to make 'any necessary adjustments between the [Great Britain] National Insurance Fund and the Northern Ireland National Insurance Fund'. The system of parity payments acts as a final safeguard against serious imbalances between the Great Britain and Northern Ireland National Insurance Funds.

A.73 The parity payment is estimated based on the relevant proportions of population of working age in GB and Northern Ireland. Transfers between Great Britain and Northern Ireland National Insurance Funds are therefore currently made so that, as far as possible, the balance in the Northern Ireland Fund is maintained at 2.87% of the joint balance of the two Funds, this percentage having recently been revised from 2.84% based on the results of the 2011 census.

Contributions

A.74 National Insurance contributions are paid in different ways by people in different type of employment:

- employees (Class 1)
- self-employed persons (Class 2 and 4)
- those making additional voluntary National Insurance contributions (Class 3).

Employees (Class 1)

A.75 Employees and their employers pay Class 1 National Insurance contributions on earnings falling within certain bands. The Class 1 contributions paid by employees are called Class 1 primary contributions and those paid by employers are Class 1 secondary contributions.

Class 1 – Earnings bands

A.76 Class 1 primary contributions are currently based on all earnings above the Primary Threshold (but a lower rate applies above the Upper Earnings Limit), while Class 1 secondary contributions are currently based on all earnings above the Secondary Threshold.

A.77 The earnings thresholds and limits in force for Class 1 contributions in each tax year from 2010-6 up to 2017-18 are shown in Table A1 below. The Upper Earnings Limit (UEL) is currently aligned to the income tax higher rate threshold.

Table A1: Earnings limits from 2010-11 to 2017-18

	Earnings limits (£ a week)		
	Upper Earnings Limit	**Primary Threshold**	**Secondary Threshold**
2010-11	844.00	110.00	110.00
2011-12	817.00	139.00	136.00
2012-13	817.00	146.00	144.00
2013-14	797.00	149.00	148.00
2014-15	805.00	153.00	153.00
2015-16	815.00	155.00	156.00
2016-17	827.00	155.00	156.00
2017-18	866.00	157.00	157.00

Class 1 – Contribution rates

A.78 Table A2 shows the rates of contribution applicable to most employed persons. Of the total National Insurance contributions payable, the majority is allocated to the National Insurance Fund, with the balance forming part of the funding for the NHS.

Table A2: Main Class 1 percentage contribution rates since 2010-11

Tax year	Main primary Class 1 rate (paid by employees)			Main secondary Class 1 rate (paid by employers)		
	NIF allocation	NHS allocation	Total	NIF allocation	NHS allocation	Total
2010-11	8.95%	2.05%	11.0%	10.9%	1.9%	12.8%
2011-12 (onward)	9.95%	2.05%	12.0%	11.9%	1.9%	13.8%

1 Before 2011-12 the lower primary contribution rate of 1% applied to all earnings above the UEL and was allocated to the NHS. From 2011-12 onwards, this increased to 2% of which 1% is allocated to NHS.

2 The allocation of secondary Class 1 NICs to the NHS is deemed to be in respect of all earnings for those cases earning more than the Primary Threshold.

A.79 Prior to April 2016, reduced rates of Class 1 contributions were payable in respect of employees who were members of contracted-out pension schemes. These reductions no longer apply following the cessation of contracting-out with effect from April 2016.

A.80 Class 1A and Class 1B NICs on benefits provided by employers to employees are payable by employers at the same rate as Class 1 secondary NICs.

Self-employed persons (Classes 2 and 4)

A.81 Class 2 NICs is an annual charge calculated according to the number of weeks or part-weeks of self-employment in a tax year. Self-employed persons with annual profits over the Small Profits Threshold (SPT) are liable to pay Class 2 contributions. The self-employed with annual profits below the SPT are able to pay Class 2 NICs voluntarily. Class 2 contributions are being abolished with effect from April 2018 and therefore the last Class 2 contributions will be due in respect of the 2017-18 tax year.

A.82 If the self-employed person has profits above the Lower Profits Limit (LPL) they also pay profits-related Class 4 contributions. The main rate of Class 4 contributions is paid on profits up to the Upper Profits Limit (UPL) and a lower rate on profits above this level. The UPL is currently aligned to the income tax higher rate threshold. The LPL is effectively aligned with the Class 1 Primary Threshold.

A.83 Details of the Small Profits Threshold (formerly the Small Earnings Exception), the profits limits and the contribution rates for the self-employed during the period 2010-11 to 2017-18 are shown in Table A3.

Table A3: Contribution rates, including the NHS allocation, and profits limits for self-employed persons from 2010-11 to 2017-18

	Small Profits Threshold* (£ a year)	Class 2 contribution (£a week)	Profits limits for Class 4 contributions (£a year)		Standard Class 4 contribution rate on profits between the limits (%)	Additional Class 4 contribution rate on profits above the upper limit
			Lower	Upper		
2010-11	5,075	2.40	5,715	43,875	8.0%	1.0%
2011-12	5,315	2.50	7,225	42,475	9.0%	2.0%
2012-13	5,595	2.65	7,605	42,475	9.0%	2.0%
2013-14	5,725	2.70	7,775	41,450	9.0%	2.0%
2014-15	5,885	2.75	7,956	41,865	9.0%	2.0%
2015-16	5,965	2.80	8,060	42,385	9.0%	2.0%
2016-17	5,965	2.80	8,060	43,000	9.0%	2.0%
2017-18	6,025	2.85	8,164	45,000	9.0%	2.0%

* Small Earnings Exception before 2015-16

A.84 The above contribution rates are totals, including both the NIF and NHS shares. 15.5% of total Class 2 contributions is allocated to the NHS. For Class 4, 2.15% of profits between the limits and 1% of profits above the upper limit are allocated to the NHS.

Persons paying additional voluntary National Insurance contributions (Class 3)

A.85 People may pay Class 3 National Insurance contributions on a voluntary basis with a view to meeting the contribution conditions for entitlement to the State Pension. The Class 3 contribution rate, including the NHS share, is shown in Table A4. 15.5% of the income from Class 3 contributions is allocated to the NHS.

Table A4: Class 3 contributions from 2010-11 to 2017-18

	Class 3 contribution (£ per week)
2010-11	12.05
2011-12	12.60
2012-13	13.25
2013-14	13.55
2014-15	13.90
2015-16	14.10
2016-17	14.10
2017-18	14.25

Income from investment account

A.86 Any surplus of contribution and other receipts over expenditure in the National Insurance Fund is added to the National Insurance Fund Investment Account and placed on deposit by the Commissioners for the Reduction of National Debt with the Debt Management Account Deposit Facility. The Investment Account is expected to earn a rate of interest close to the Official Bank of England Rate (Base Rate).

Compensation for recoveries of statutory payments

A.87 The Fund receives compensation from the Government for loss of revenue due to contribution receipts being reduced by recoveries of statutory payments (see paragraph A.65). In principle, the amount of compensation is designed to balance the recoveries made by employers, and therefore the actual level of statutory payment recoveries is irrelevant to projecting the finances of the Fund.

Other receipts

A.88 The Fund also receives relatively small amounts of other income. These mainly relate to state scheme premiums paid in connection with the system of contracting-out that ceased from April 2016 and redundancy payments previously met by the Fund that are subsequently recovered from the employer.

Treasury Grant

A.89 The Social Security Act 1993 introduced the potential for a Treasury Grant to be paid to the Fund. It enables money provided by Parliament to be paid into the Fund if HM Treasury considers it expedient to do so in order to maintain the level of the Fund. It is subject to a maximum of 17% of benefit expenditure in the year.

A.90 In the period 2010-11 to 2015-16 Treasury Grants of £4.6 billion and £9.6 billion were received in 2014-15 and 2015-16 respectively.

Appendix B: Data used

Data sources and summary of data collected

B.1 The sources of data used in the projections, either directly or used to inform the choice of assumptions underlying the projections, as summarised as follows:

> The source of projections of population numbers, mortality, fertility and migration was the 2014-based population projections published by the Office for National Statistics (ONS); marital status information was also sourced from ONS

> The data and projected data series underlying the assumptions for price inflation, earnings inflation and employment numbers from the Office for Budget Responsibility's (OBR) March 2017 Economic and Fiscal Outlook and the January 2017 Fiscal Sustainability Review were shared with us; these formed the basis for the short-term and long-term economic assumptions which are discussed in more detail in Appendix C

> The financial position of the Fund and details of income and expenditure were taken from the Fund accounts, the latest being for the financial year 2015-16 and published in October 2016 (see the summary below)

> Projections of contributions were based on information from the ONS (including the Annual Survey of Hours and Earnings (ASHE) and the population projections) and HMRC (the Survey of Personal Incomes (SPI) and data on contribution out-turns by contribution class for recent years); long-term employment projection information was taken from OBR's cohort employment projection model

> The main source of data for benefit expenditure was information provided by the DWP from their L2 database (Lifetime Labour Market database) and their Quarterly Statistical Extracts, covering numbers of recipients of benefits, average amounts payable and historical earnings records and demographic information, broken down by age and sex

> Projections of non-pension benefits are also informed by DWP's short-term forecasts of benefit expenditure.

B.2 GAD has not verified the data (except for limited reviews for reasonableness) and does not accept responsibility for any inaccuracies in the data supplied.

B.3 No data exist showing the number of people below SPa currently living overseas and therefore not included in ONS's population projections who may be entitled to a State Pension when they reach SPa. The approach used to make estimates in this area is set out in Appendix F. In the opinion of GAD these missing data do not have a material effect on the overall projection results.

B.4 More detail in relation to data and assumptions used in the projections is provided in Appendix C.

B.5 A summary of the main data used is set out below.

Data	Source
Starting point for projections of benefits and contributions of the NIF	NI Fund account for the year ended 31 March 2016
Contributions:	
Number of employees and self-employed	OBR – determinants in the short-term and its cohort employment model in the longer term
Earnings	ONS's ASHE and SPI data
Contribution rates and limits	HMRC
Benefits:	
Numbers of beneficiaries / amount of benefit	L2, QSE, ONS's Population projections
Mortality rates	ONS's population projections
Re-rating of benefits	DWP

Fund accounts

B.6 Table B1 below shows the accounts of the National Insurance Fund for the period since 2010-11.

£ billion	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Fund value at start of year	48.8[7]	43.2	38.6	29.1	23.2	20.9
Contributions	74.2	78.4	79.1	82.2	84.1	86.5
Treasury Grant	-	-	-	-	4.6	9.6
Compensation for statutory payment recoveries	2.1	3.0	2.6	2.3	2.5	2.6
Investment income	0.2	0.2	0.2	0.1	0.1	0.1
Other income	0.1	0.1	0.1	0.1	0.1	0.1
Total income	**76.6**	**81.8**	**81.9**	**84.8**	**91.4**	**98.8**
Pension benefits	69.3	74.1	80.0	82.5	85.9	88.7
Incapacity Benefit/Employment Support Allowance	6.6	6.4	5.7	4.8	4.4	4.5
Other benefits	4.7	4.4	4.4	2.0	1.8	1.7
Transfers to Northern Ireland	0.1	0.1	0.3	0.3	0.6	0.7
Administration costs	1.4	1.1	0.9	0.9	0.8	0.8
Other expenditure	0.1	0.2	0.2	0.2	0.2	0.2
Total expenditure	**82.3**	**86.3**	**91.5**	**90.7**	**93.6**	**96.6**
Surplus/(deficit)	(5.6)	(4.6)	(9.5)	(5.9)	(2.3)	2.2
Fund value at end of year	43.2	38.6	29.1	23.2	20.9	23.2

[7] The opening balance for 2010-11 was restated in the 2011-12 accounts.

Appendix C: Assumptions

Introduction

C.1 This appendix summarises the main assumptions used in projecting income and expenditure in this report. It contains a description of the base case demographic, economic and labour market assumptions, an explanation of their derivation and a comparison with the assumptions used in the previous quinquennial review. The assumptions have been discussed with HMRC, DWP and HMT but the final choice is my responsibility as Government Actuary.

C.2 The base case assumptions have been selected to provide a best estimate of the future projection of income and expenditure. The majority of the assumptions are therefore based on forecasts from the Office for Budget Responsibility (OBR), or statistics and projections produced by the Office for National Statistics (ONS). Both the OBR and ONS are independent bodies producing analysis in respect of Government finances and the population of Great Britain.

C.3 The results provided are sensitive to changes in the assumptions. Also, policy as regards future increases in earnings limits and benefits could change and the results of our projections are sensitive to whether benefits and earnings limits are up-rated and re-rated with prices or earnings. In order to illustrate the effects of changes in assumptions, projections have also been carried on a range of variant assumptions which are described in this appendix.

C.4 Appendix D discusses the methods and other assumptions used for projecting specific items of income and expenditure.

C.5 The results of our projections have been aligned with external sources of information on current levels of contribution income and benefit expenditure, including the accounts of the Fund and additional income and outgo data from HMRC and DWP.

Base case assumptions

Demographic assumptions

Population projections

C.6 The projected future population of Great Britain used for this review, both for the base-case and the variant projections, was derived from the 2014-based population projections published by the ONS in 2015. These projections were based on mid-2014 population estimates. Details of the mortality, fertility and migration assumptions used by the ONS can be found on the ONS website at:

https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/compendium/nationalpopulationprojections/2015-10-29

C.7 The base-case projections for the QR2010 were based on the ONS 2012-based low migration population projections.

Marital status

C.8 The assumptions on marital status are derived from the ONS England & Wales 2008-based marital status projections, supplemented with Scotland data to derive GB-rates, and extended beyond 2033 in line with E&W 2003-based marital status projections. The same assumptions were used for QR 2010, and no new projections have been produced by the ONS in the interim.

Labour market assumptions

State Pension age (SPa)

C.9 The SPa assumptions for the base case are based on current legislation and stated policy regarding SPa in line with the recent Secretary of State for Work and Pensions report on SPa. The Secretary of State's report indicated an expected increase in SPa from 67 to 68 during 2037-39 and a longer term policy intention for SPa to be set to reflect an aim of up to 32% of adult life to be spent in retirement. In light of the long projection period for the Quinquennial Review, I have assumed this is achieved by two further increases in State Pension age at 10-year intervals and thereafter in line with the 32% policy intention, which results in the following assumed SPa timetable:

Period	SPa change
2018-2020	65 to 66
2026-2028	66 to 67
2037-2039	67 to 68
2047-2049	68 to 69
2057-2059	69 to 70
2068-2070	70 to 71

C.10 The QR 2010 base-case projections adopted SPa assumptions in line with legislation in effect prior to 14 May 2014, that is, as set out in Pensions Act 1995 as amended by Pensions Act 2011, with increases in SPa to 67 in the mid-2030s and to 68 in the mid-2040s.

Labour market participation

C.11 Participation rates and unemployment rates are obtained from the cohort employment projection model. This model, originally developed by HMT, has been extensively reviewed by OBR; therefore I have not examined the model in detail ourselves. However, the results of the model has been adapted for the population projection variants used in this review. Long-term unemployment is assumed to be constant at 5.35% of the labour force, implying an employment rate of 94.65%, in line with the assumption in the January 2017 FSR. Employment is split between employees and self-employed based on the split in the March 2017 EFO.

C.12 This is consistent with the approach adopted for QR 2010 which used assumptions based on the OBR March 2014 EFO and the October 2013 version of the OBR cohort employment model.

Adjustments to numbers employed (employees and the self-employed)

C.13 For NIC modelling I blended the short-term projection series supplied by OBR into the longer-term projections from the cohort employment projection model.

C.14 Our models allow for economically active persons up to and including age 80.

Assumption about the rate of pension benefits to be paid

C.15 As described in Appendix A, the rate of nSP for an individual depends on the number of qualifying years (QYs) that the individual has accumulated over their working life as a result of paying contributions or receiving credits. Although information is available in the L2 database on the numbers of QYs individuals have earned up to 2015, future labour market behaviour will greatly influence the numbers of QYs have by the time they reach SPa. To allow for this, I have assumed that all people in Great Britain who reach SPa after April 2016 are eligible to receive some nSP, and that the average proportion of the full rate of nSP that individuals reaching SPa in the long term will receive is 96.0%, with short-term assumptions for those reaching SPa in the first 8 years of the projections reflecting the transition provisions in the Pensions Act 2014. Once individuals reach SPa the amount of nSP that they are eligible to receive is assumed not to alter. These assumptions apply to those receiving new State Pension and resident in Great Britain – nSP recipients resident outside the UK are assumed to receive proportions of the full rate based on information and projections of the numbers of QYs as at their emigration.

Economic assumptions

C.16 The short-term and long-term economic assumptions assumed for the 2015 review are summarised in Table C1.

Table C1: Key short- and long-term economic assumptions[1,2]

	QR2015 assumptions			QR2010 assumptions		
Financial Year	**Earnings increases**	**CPI (September)**	**Triple lock as applied in FY[2]**	**Earnings increases**	**CPI (September)**	**Triple lock as applied in FY[3]**
2015-16	1.8%[4]	-0.1%[4]	2.9%[4]	3.3%	2.0%	2.5%
2016-17	2.6%	1.0%	2.9%[4]	3.7%	2.0%	3.3%
2017-18	2.6%	2.6%	2.5%[4]	3.7%	2.0%	3.6%
2018-19	2.8%	2.2%	2.6%	3.8%	2.0%	3.7%
2019-20	3.0%	2.0%	2.7%	4.45%	2.0%	3.8%
2020-21	3.5%	2.0%	2.9%	4.45%	2.0%	4.75%
2021-22	3.7%	2.0%	3.4%	4.45%	2.0%	4.75%
2022-23[5]	4.3%	2.0%	3.6%	4.45%	2.0%	4.75%
2023-24 onwards	4.3%	2.0%	4.6%[5]	4.45%	2.0%	4.75%

1 http://cdn.budgetresponsibility.org.uk/March2017EFO-231.pdf
2 http://cdn.budgetresponsibility.org.uk/FSR_Jan17.pdf
3 The triple lock increase is not equal to the highest of 2.5% and the equivalent earnings growth and CPI figures shown. Triple lock increases for a year are based on the earnings growth and CPI as at the previous July and September respectively.
4 These values are already known as at the date of this report as they have been used to set the level of the basic State Pension and other benefits.
5 The triple-lock up-rating in 2023-24 onwards is based on assumed economic conditions in 2022-23 and is projected to be 4.6%

C.17 We have adopted OBR's March 2017 short-term view of CPI as shown in Table C1 above as set out in the "Economic and fiscal outlook" (March 2017 EFO). The assumption for CPI reverts to the Bank of England's long-term 2.0% a year target for later years. The OBR used this long-term assumption in their January 2017 Fiscal Sustainability Report (January 2017 FSR).

C.18 The same approach to deriving economic assumptions of using the latest assumptions from the OBR was adopted for QR 2010 and the corresponding figures assumed in the QR2010 are shown in Table C1.

CPI

General earnings growth

C.19 As with the CPI assumptions, short–term assumptions for general earnings growth have been based on the short-term view of earnings increases provided in the March 2017 EFO. For the long-term assumption I have assumed a long-term rate of 4.3% per annum. This is consistent with the long-term assumption in the January FSR 2017. The OBR long-term earnings growth assumption equals the product of labour productivity growth and GDP deflator[8]. OBR assume that labour productivity growth would be 2.0% by 2026-27 and that the long-term GDP deflator would be 2.3%. The earnings growth assumption is important both the growth of earnings which determine projected future contributions, for the assumption about triple lock up-rating of State Pensions, and for the re-rating of contribution rates and limits (see below).

Triple lock

C.20 The new State Pension and the basic State Pension are increased in line with the triple-lock policy (the greatest of CPI, earnings and 2.5% a year) guaranteed for the duration of this UK Parliament, and I have assumed that this policy continues indefinitely. The actual increases in benefit rates as at April 2016 and April 2017 have been used, and short-term triple-lock assumptions for 2018-19 to 2020-21 are assumed to be in line with the OBR March 2017 EFO, using the higher of 2.5% and the relevant earnings and CPI assumptions for each year's uprating. For the long term, starting with the up-rating in 2022-23 and based on economic conditions in 2021-22, I have added a margin of 0.34% to the earnings growth assumption to allow for the potential impact of the triple-lock policy. The margin of 0.34% a year is to allow for the possibility that both CPI and earnings will fluctuate from year to year sometimes being above 2.5% and sometimes below, regardless of the assumed long-term average. This margin is in line with that used by OBR in their January 2017 FSR.

Other up-rating of benefits and re-rating of limits

C.21 Apart from certain exceptions, earnings limits and benefits other than the new State Pension and the basic State Pension are currently expected to increase in line with prices (CPI) in the short term.

C.22 However, in order to avoid the projections being distorted by the effects of fiscal drag, that is, to avoid projected contribution income altering simply as a result of contribution earnings limits increasing at a slower rate than earnings growth, it is assumed that in the long term the majority of earnings limits increase in line with earnings. This is consistent with OBR's long-term approach.

[8] The GDP deflator is a much broader price index than the CPI, RPI or RPIX (which only measure consumer prices) as it reflects the prices of all domestically produced goods and services in the economy. Hence, the GDP deflator also includes the prices of investment goods, government services and exports, and subtracts the price of UK imports.

C.23 The main contribution earnings limits in the short term are:

Table C2: Earnings limits in the short term[1]

Financial Year	Earnings limits (£ a week)		
	Upper Earnings Limit	Primary Threshold	Secondary Threshold
2018-19	888	161	161
2019-20	909	165	165
2020-21	929	168	168
2021-22	949	171	171
2022-23	970	174	174

1 After the short term, earnings limits are generally assumed to increase in line with earnings

Investment return

C.24 Although not significant to the results of the review, an assumption about the investment return is needed in order to make projections of the balance of the National Insurance Fund. There is no OBR assumption on this matter. As noted in Appendix A, any surplus of contribution and other receipts over expenditure held in the National Insurance Fund Investment Account by the Commissioners for the Reduction of National Debt is expected, in the short-term, to earn interest at a rate close to the Official Bank of England Rate (Base Rate). I considered that a suitable proxy for long-term Base Rate projections is to assume notional investment in index-linked gilts. Consequently our long-term assumption is 1.65% (3.15% in the previous QR), based on an assumed long-term index-linked return net of RPI of around -1.5% a year, an assumed long-term difference between RPI and CPI of 1.15% a year and assumed long-term CPI of 2.0% a year.

C.25 GAD assumed investment returns (using the Bank of England's quarterly Inflation Report conditioning path projection database) are:

Table C3: Gross investment returns in the short term

Financial Year	Investment return QR2015	Investment return QR2010
2015-16	0.50%	1.10%
2016-17	0.33%	1.80%
2017-18	0.26%	2.20%
2018-19	0.41%	3.15%
2019-20	0.60%	3.15%
2020-21	0.80%	3.15%
2021-22	1.01%	3.15%
2022-23 onwards	1.65%	3.15%

Variants

Economic variants

C.26 Five economic variants have been assumed as follows:

High long-term real earnings growth (0.5% pa higher - 2022-23 onwards)

This variant assumes that the long-term real earnings growth will be 0.5% higher than the base-case assumption from 2022-23 onwards (i.e. the earnings growth is assumed to be 4.8% per annum from 2022-23 onwards, with triple-lock increases for 2023-24 onwards also 0.5% higher at 5.1% per annum).

Low long-term real earnings growth (0.5% pa lower - 2022-23 onwards)

This variant assumes that the long-term real earnings growth will be 0.5% lower from 2022-23 onwards (i.e. the earnings growth is assumed to be 3.8% per annum from 2022-23 onwards, with triple-lock increases for 2023-24 onwards also 0.5% lower at 4.1% per annum).

Long-term economic assumptions throughout

This variant assumes the long-term assumptions apply from 2017-18 onwards (i.e. the earnings growth is assumed to be 4.3% per annum from 2017-18 onwards, CPI increases are 2.0% per annum from 2017-18 onwards and that triple-lock increases will be 4.6% per annum from 2018-19 onwards).

High short-term real earnings growth (3.5% above CPI per annum up to 2021-22 inclusive)

This variant assumes higher short-term real earnings growth from 2017-18 to 2021-22 and that triple-lock increases will also be higher for 2018-19 to 2022-23.

Low short-term real earnings growth (0% above CPI per annum up to 2021-22 inclusive)

This variant assumes lower short-term real earnings growth from 2017-18 to 2021-22 and that triple-lock increases will also be lower for 2018-19 to 2022-23.

Labour market variants

C.27 Four labour market variants, including variants which explore how different rates of labour market participation may lead to different rates of benefits being paid, have been considered as follows:

Average proportion of State pension

Higher proportion of full rate pension

This variant assumes recipients of the new State Pension receive a higher proportion of the full rate (100% rather than 96% in the base case scenario).

Lower proportion of full rate pension

This variant assumes recipients of the new State Pension receive a lower proportion of the full rate (92% rather than 96% in the base case scenario).

Labour market participation

High unemployment

This variant assumes long-term unemployment to be constant at 8.0%, implying a long-term employment rate of 92.0%.

Low unemployment

This variant assumes long-term unemployment to be constant at 2.7%, implying a long-term employment rate of 97.3%.

Demographic variants

C.28 For demographic variants, I have used the ONS variant projections for fertility, migration and life expectancy. I have also shown the effect of using ONS's 'young' and 'old' combined variants. The variant demographic assumptions are based on different combinations, as set out in Table C4 below, of the ONS's 2014-based principal, high and low life expectancy, fertility, and migration assumptions, to produce population estimates for Great Britain.

Table C4: Composition of demographic variants

Variant	Life expectancy	Fertility	Migration
Base case	Principal	Principal	Principal
High life expectancy	High	Principal	Principal
Low life expectancy	Low	Principal	Principal
High fertility	Principal	High	Principal
Low fertility	Principal	Low	Principal
High migration	Principal	Principal	High
Low migration	Principal	Principal	Low
'Young'	Low	High	High
'Old'	High	Low	Low

Variant policy initiatives

C.29 Two variant policy initiatives have been considered as follows:

Short-term Triple Lock (up to 2021-22 inclusive)

This variant assumes that increases in line with the triple-lock policy are only provided until the end of the current Parliament, with increases in basic State Pension and new State Pension benefit rates from April 2023 reverting to increasing in line with the long-term earnings increase of 4.3% per annum (the statutory minimum under section 150A of the Social Security Administration Act 1992).

State Pension age (SPa) immediate 32%

In this variant it is assumed that the longer term policy intention, of setting SPa to reflect the aim of up to 32% of adult life being spent in retirement, is implemented from 2040. This provides for SPa increases in line with the following timetable:

Period	SPa change
2018-2020	65 to 66
2026-2028	66 to 67
2037-2039	67 to 68
2040-2042	68 to 69
2054-2056	69 to 70
2068-2070	70 to 71

Appendix D: Calculation method

Introduction

D.1 This appendix summarises the methods and assumptions used to project National Insurance contributions and other income to the Fund and benefit and other expenditure from the Fund based on the Pensions Act 2014 legislation. The data sources and assumptions used in projecting contributions, other income and benefit and other expenditure are described in Appendices B and Appendix C, respectively.

Projecting benefit expenditure

D.2 Benefit expenditure is estimated for pension benefits separately for those reaching State Pension age before April 2016 and receiving retirement pension including additional pension (SERPS and S2P) under the Social Security Contributions and Benefits Act 1992, and for those reaching State Pension age from April 2016 receiving state pension under the Pensions Act 2014. Expenditure on other benefits paid from the National Insurance Fund under the Social Security Contributions and Benefits Act 1992, the Jobseekers Act 1995, and the Welfare Reform Act 2007 is estimated separately for each benefit. Allowance has been made for recent legislative changes, including the Pensions Act 2014 and, to the extent that it's relevant, the Welfare Reform Act 2012.

D.3 For the main benefits adjustments are applied to align the estimates for recent years with actual known levels of payments.

D.4 This section describes the methods used to project the following benefits and payments from the Fund:

- The new State Pension (nSP) under the Pensions Act 2014 for those reaching State Pension age (SPa) on or after 6 April 2016 who are in Great Britain
- "Protected payments" paid to those receiving nSP whose National Insurance contribution payments before April 2016 meant that they had accrued a pension as at that date larger than the full rate of nSP
- The basic retirement pension (basic State Pension or bSP) paid at a flat rate to those reaching State Pension age before 6 April 2016 who are in Great Britain
- Additional State Pension, known as the State Earnings-Related Pension Scheme (or SERPS) and later the State Second Pension (or S2P) paid to those receiving bSP who, broadly, had been an employee paying Class 1 National Insurance contributions, and associated deductions from SERPS and S2P arising from periods of contracted-out employment
- Graduated Retirement Pension (which accrued for people employed between 1961 and 1975)
- Amounts of flat-rate nSP and bSP for those resident outside the United Kingdom who are entitled to such pensions as a result of having paid National Insurance contributions at some stage in their working lives

> Bereavement Benefits
> Contributory Employment and Support Allowance
> Contributory Jobseeker's Allowance
> Guardian's allowance
> Christmas bonus
> Statutory payments
> Redundancy payments
> Other expenditure, including transfers to the Northern Ireland National Insurance Fund
> Administration costs.

New State Pension (nSP)

D.5 For those reaching SPa on or after April 2016 who will receive the nSP, amounts of nSP to be paid were projected using a model based on that used for basic State Pension (bSP), as described below, although aspects relating to derived rights and inherited rights for spouses are not generally applicable for nSP.

D.6 The model uses the 2014-based principal population projection for Great Britain, issued by Office for National Statistics (ONS), as a basis for the number of people over SPa. The estimates could allow for different proportions of the population at different ages in any given year above State Pension age to receive nSP, though actually 100% of the population above SPa among the relevant cohorts are assumed to be in receipt of some nSP as described in Appendix C.

D.7 Allowance is made for trends in the average amounts of benefit.

D.8 The estimated expenditure on the nSP was then obtained by multiplying the projected number of recipients by the estimated average amounts of basic retirement pension. Unlike for bSP I believe that any deferral of nSP will be immaterial (deferral will likely be less common for nSP than for bSP as the terms offered to those deferring are less generous).

D.9 The L2 database (Lifetime Labour Market database) provided by the Department for Work and Pensions (DWP) of anonymised data includes records on over 450,000 individuals who would be affected by the nSP transitional arrangements and shows for each individual past earnings and contribution record history. Based on this database, I calculated for each individual (a) their entitlement at the introduction of the new State Pension based on the pre-Pensions Act 2014 system, and (b) their entitlement assuming the new State Pension system had always been in place . The higher of these two amounts is the individual's 'starting amount'. If the starting amount was greater than the full rate of the nSP, the difference will become the individual's protected payment and is payable alongside SP.

D.10 As the database provided by DWP included data up to the end of the financial year 2014-15, the records were extrapolated up to 2016 with an allowance for mortality and assuming that each individual received a full qualifying year based on contributions or a credit for 2015-16. The protected payments were projected for years after 2016 allowing for CPI up-rating and mortality before and after coming into payment. I allowed for inheritance of these protected payment amounts consistent with the rules regarding inheritance of additional State Pension.

D.11 The nSP entitlements excluding the protected payments were converted to an average proportion of the full amount that individuals would achieve on average at SPa. This took into account both the starting amounts as described above and qualifying years that individuals might accrue after 2016. The approach to setting an appropriate assumption by age and sex has been aligned with DWP's emerging modelling. In the long term it is assumed that this average proportion stabilises at around 96% of the full new State Pension as described in Appendix C. The base case projection assumes the new State Pension will be up-rated in line with triple lock.

Basic State Pension (bSP)

D.12 Those who reached SPa before April 2016 would generally be eligible for bSP. These people essentially form a closed group of beneficiaries and their benefits are projected by surviving forward the pensions they are in receipt of in 2015-16 over time (and allowing for any future inheritance of bSP benefits). To do this, the proportion of the total population in receipt of bSP by age, sex and marital status for 2015-16, and the average pension in payment expressed as a proportion of the maximum pension payable by age, sex and marital status for 2015-16, were derived from DWP data and the 2014-based population projections.

D.13 The estimated expenditure on the basic retirement pension was then obtained by multiplying the projected number of recipients by the estimated average amounts of basic retirement pension in each future year assuming that the proportion of the population in receipt of bSP and the average amount expressed as a proportion of the maximum pension by sex and marital status would remain constant in future years for a given year of birth.

D.14 As deferral of pensions beyond SPa results in some deferral of expenditure but does not materially affect the Fund's long-term financial position, I have allowed for a small amount of deferral by GB resident pensioners in receipt of bSP, in the form of both increments to future pensions payable and lump sums.

D.15 Very small amounts of adult and child dependency increases paid with bSP until 2020 are negligible in the context of the Fund as a whole, and were not modelled in detail.

Overseas pensioners

D.16 A separate model is used to estimate the amounts of retirement pension paid to pensioners overseas (and therefore not covered by the ONS's population projections). This model takes as starting points DWP data on the amounts of pension currently paid to pensioners overseas and an estimate of the amounts of contributions paid in past years by people under State Pension age who are believed to be currently overseas (identified as those who did not participate in the National Insurance contribution system for two complete tax years). These are then projected allowing for mortality, immigration and emigration, and awards of new pension for claims by those reaching State Pension age. Allowance is made for those overseas cases whose pension rate is frozen. Allowance is also made for the effects of the introduction of new State Pension for those reaching State Pension age from April 2016 in terms of different eligibility conditions, a different rate of benefit and the effects of transition provisions.

D.17 In 2015, the basic State Pension paid to those outside the UK was about 4.6% of total expenditure on basic State Pension. This proportion including payment of nSP is projected to fall to 1.6% by the end of the projection period.

D.18 The estimated total number of men and women in receipt of a retirement pension in future, including people overseas, are shown in Table D1 below.

Table D1: Projected future numbers of retirement pensioners (millions)[1]

	QR2015[2]			QR2010[3]		
Financial year	**Men**	**Women**	**Total**	**Men**	**Women**	**Total**
2020-21	5.8	6.8	**12.6**	5.8	7.0	**12.8**
2030-31	6.7	7.8	**14.5**	7.4	8.6	**16.0**
2040-41	7.6	8.7	**16.2**	8.3	9.7	**18.0**
2050-51	7.6	8.8	**16.4**	8.5	10.0	**18.5**
2060-61	7.8	8.9	**16.8**	9.3	10.7	**20.0**
2070-71	8.1	9.0	**17.1**	9.8	11.0	**20.8**

1 Including GB pensioners assumed to be deferred.
2 The figures for QR2015 assume SPa increases to age 65 by 2018 for women and then further increases to age 66 between 2018 and 2020, age 67 between 2026 and 2028, age 68 between 2037 and 2039, age 69 between 2047 and 2049, age 70 between 2057 and 2059 and age 70 between 2068 and 2070 for men and women.
3 The figures for QR2010 assume SPa increases to age 65 by 2018 for women and then further legislated increases to age 66 between 2018 and 2020, age 67 between 2034 and 2036 and age 68 between 2044 and 2046 for men and women.

D.19 The number of male pensioners increases at a faster rate than for women. This is due chiefly to the increase in SPa for women which is being phased in between 2010 and 2018 and the increases in SPa for both men and women being phased in beyond then.

Additional State Pension (SERPS and State Second Pension)

D.20 Estimates are also made for amounts of additional state pension payable to those reaching SPa before 6 April 2016 based on data provided from DWP relating to amounts in payment at the end of March 2016. These amounts of additional state pension are projected forward using mortality rates based on the ONS's 2014-based population projection, with adjustment to allow for lighter mortality rates to apply to those with additional state pension than for the population as a whole. This adjustment to the mortality rates reflects experience observed in the DWP data on benefit expenditure. Allowance is made for additional state pension which is inherited by surviving widows and widowers after the death of a pensioner. A similar method is used for contracted-out deductions, including adjustments made to the mortality rates to allow for generally lighter mortality for those contracted out.

Graduated Retirement Benefit

D.21 We have based our estimates of expenditure on Graduated Retirement Benefit on the number of graduated 'units' earned between 1961 and 1975. The units accrued up to April 1975 are projected using population mortality rates modified slightly to allow for the expected lighter mortality experienced by recipients of graduated pension to be in line with that assumed for recipients of Additional Pension. I made an allowance for the inheritance of graduated units by widows and, from 1979, by widowers and, from 2005, by surviving civil partners. I assumed that units in respect of surviving spouses and other dependants under SPa would be put into payment at SPa. However, benefits payable to those who earned Graduated Benefit in their own right but who would not have reached SPa by April 2016 are not included as such people would now receive new State Pension. The appropriate graduated rate is applied to the remaining units over State Pension age and is projected to increase annually in line with assumed increases in prices (CPI).

Bereavement benefits

D.22 Bereavement benefits (Bereavement Payment, Widowed Parent's Allowance and Bereavement Allowance) make up around 0.6% of total benefit expenditure including Additional State Pension paid with Widowed Parent's Allowance, and the proportion is projected to fall, reaching less than 0.05% by the end of the projection period. For this reason I adopted a simple model for Bereavement benefits which extrapolated short-term estimates (that is, up to 2020-21) made by DWP, flat-rate and additional pension combined, in line with changes in the number of deaths in each year from then on.

Employment and Support Allowance / Incapacity Benefit

D.23 Employment and Support Allowance (ESA) currently makes up around 5% of total benefit expenditure. The proportion is projected to fall as ESA is assumed to have a lower rate of up-rating each year than State Pension.

D.24 For this reason, I adopted a simple model for ESA. As for bereavement benefits, I extrapolated the estimates made by DWP for the contributory part of ESA in the short term, up to 2020-21, in line with changes in the number of economically inactive people at each age – that is, those who are not in employment, self-employment or unemployment. The projections of the numbers of people who are economically inactive are made consistent with the population projections used for all benefits and contributions, the projections of those in employment used for the projections of contributions and the projections of unemployment used for the projection of Jobseeker's Allowance. An approximate allowance was made for increases in SPa.

D.25 These estimates make no allowance for any changes to be made to the contributory part of ESA by the introduction of Universal Credit, but it is not expected that any such changes will change the level of expenditure from the Fund materially.

D.26 Any residual amounts of Incapacity Benefit are negligible and are ignored.

Jobseeker's Allowance

D.27 The contributory component of Jobseeker's Allowance makes up around 0.3% of total benefit expenditure and the proportion is falling. For this reason I adopted a simple model which extrapolated estimates made by DWP in the short term up to 2020-21, in line with changes in the number of unemployed in each year from then on. As with Employment and Support Allowance, no allowance was made for the introduction of Universal Credit, and again this is not expected to be material in the context of the projections of Fund finances as a whole.

Maternity Allowance

D.28 Maternity Allowance makes up around 0.5% of total benefit expenditure with the proportion falling over time. For this reason I adopted a simple model for Maternity Allowance which extrapolated estimates made by DWP, flat-rate and earnings-related combined, in the short term (up to 2020-21) in line with changes in the expected number of births in each year to economically active women.

Guardian's Allowance

D.29 The amount of Guardian's Allowance paid in 201516 was approximately £2m. I estimated future expenditure by projecting this figure in line with projected number of children under the age of sixteen, taking into account the expected benefit increases.

Christmas bonus

D.30 We derived the estimated future expenditure on Christmas bonuses from the projected numbers eligible for those benefits which give entitlement to the lump sum, namely Retirement Pension, Widowed Parent's Allowance, Bereavement Allowance and Employment and Support Allowance. The benefit rate was assumed to remain fixed at £10 since there is no requirement in legislation for this to be increased.

Redundancy payments

D.31 The annual amount of redundancy payments net of recoveries was about £254m in 2015-16, some 0.3% of Fund outgo. I based our future estimates on the amounts projected by DWP to 2020-21 and then increasing in line with earnings.

Statutory Payments

D.32 As noted in paragraph A.67 above, the amounts of these benefits have little effect on the finances of the Fund itself because a payment is made each year from the Consolidated Fund broadly equal to the amounts deducted from National Insurance contributions by employers. After allowing for retrospective adjustments based on data on the actual amounts recovered by employers, the payments from the Consolidated Fund should exactly equal the amounts of statutory payments recovered for each year. As noted in paragraph A.87, the additional amounts that small employers can recover and which are not reimbursed to the Fund by the payment from the Consolidated Fund are immaterial in relation to the Fund as a whole.

D.33 Nonetheless, I estimated the amounts of each statutory payment recovered by employers. The amounts of SMP are projected based on amounts for recent years and taking into account projections of the number of births, the estimated proportion of women at child-bearing ages who are contributing employees, the benefit rate and, in the case of the earnings-related part, earnings. Amounts of SPP and SAP have been projected based on amounts in recent years allowing for projected changes in the number of births and benefit rates.

Other expenditure and transfers to Northern Ireland

D.34 Amounts shown in the National Insurance Fund accounts as 'Other expenditure' was largely related to payments to the Isle of Man National Insurance Fund, and State Pension Deferred Lump Sum payments. For simplicity, other expenditure has been projected forward in line with earnings.

D.35 In 2015-16, the amount transferred to the Northern Ireland National Insurance Fund (see paragraph A.72) to ensure parity was £690m. To estimate future transfers I have assumed that amounts will be a fixed proportion of the Fund at the start of the year. As these payments are volatile, I assumed that the proportion is equal to that seen in 2015-16 (2.5%) which is close to the average of that for the years 2005-13 (2.8%).

Administration costs

D.36 The cost of administration was around £801m in 2015-16, about 0.8% of total expenditure. Of this amount, about 66% related to the role of the Department for Work and Pensions in administering the payment of benefits and the majority of the balance related to HM Revenue and Customs' collection of National Insurance contributions.

D.37 In future, whilst the numbers of contributors and those in receipt of benefits other than retirement pensions are relatively stable, the increase in the number of pensioners will tend to increase costs. On the other hand, this potential increase may be offset by improvements in the efficiency of administration. As administration costs are a relatively small proportion of total outgo, it has been assumed that they will remain constant until 2020-21 and then increase in line with earnings.

Future contribution receipts

D.38 The methods adopted for projecting National Insurance contributions (NICs) are summarised below:

Class 1 (employees and their employers)

D.39 We extend short-term projections of numbers of employees provided by the Office for Budget Responsibility (OBR) into the long term in line with the trends observed from OBR's long-term cohort employment projection model. That model is based on ONS's Labour Force Statistics and ONS population projections, and allows for the assumed pattern of SPa increases. The result of this is a projection of the total number of employees in each future year.

D.40 We also use OBR's cohort employment projection model to prepare projections of the age and gender profile of employees for each future year. In addition, distributions of earnings by age and gender are derived from the ONS's annual survey of hours and earnings and the survey of personal incomes (SPI) provided by Her Majesty's Revenue and Customs (HMRC).

D.41 By putting together the projected age and gender profile, the projected total numbers of employees, the earnings distributions by age and gender and the assumed rate of earnings growth, it is possible to project total earnings in the relevant earnings bands. Applying the assumed pattern of increases in contribution earnings limits to these projected earnings allows us to project NICs. As noted in Appendix C, contribution earnings limits are assumed to increase in line with CPI in the short term and in line with the earnings growth in the long-term.

D.42 Actual known contribution receipts in recent years were used to adjust the projected amounts of contributions to align results from modelling with available information on actual contributions.

Class 1A and 1B (employers in respect of company cars and other fringe benefits)

D.43 As Class 1A and Class 1B contributions are not large, a simpler approach was adopted based on information provided by HMRC and allowing for future assumed growth in earnings and the total number of employees.

Class 2 and Class 4 (self-employed people)

D.44 Projections were carried out for the self-employed in a similar manner to Class 1, but using a distribution of relevant earnings derived from the S PI. For Class 2, the distribution of relevant earnings was used to determine what proportion of the projected number of self-employed have profits above the Small Profits Threshold and would therefore be liable to pay flat-rate Class 2 contributions.

Class 3 (voluntary contributors)

D.45 Class 3 contributions are very small and were projected simply using information from HMRC and allowing for growth in line with earnings and the working age population.

D.46 For all classes of contributions, amounts accruing in any one year are turned into amounts of receipts in that and subsequent years allowing for observed lags in payments of the relevant class of contributions.

Other income

D.47 The compensation payments made to the Fund in respect of statutory payment recoveries are set to be equal to the amount of the statutory payments which are calculated as described in paragraph D.33.

Appendix E: Detailed results

E.1 The tables below shows a more detailed breakdown of the projection results for the base-case scenario shown in the main body of this report. The table shows receipts and payments at ten yearly intervals in nominal cash terms.

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.2**	**31.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Total Class 1 contributions	83.1	107.3	171.1	270.3	428.8	676.5	1,074.1	1,696.7
All other Classes	3.3	3.7	5.5	8.7	13.9	21.8	34.6	54.7
Contribution income	**86.5**	**111.0**	**176.6**	**279.0**	**442.6**	**698.3**	**1,108.8**	**1,751.5**
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.8	5.3	7.6	10.6	15.1	22.1
Investment income	0.1	0.3	0.4	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**180.9**	**284.3**	**450.2**	**708.9**	**1,123.8**	**1,773.5**
Payments								
Pre-2016 basic State Pensions	88.7	66.0	59.1	35.9	8.5	0.4	0.0	0.0
Pre-2016 earnings-related State Pensions		20.3	17.3	9.2	2.0	0.1	0.0	0.0
new State Pensions	N/A	14.1	104.6	278.6	507.4	830.2	1,328.3	2,197.6
Protected Payments		0.4	1.1	1.3	0.9	0.3	0.1	0.0
Total State Pension	**88.7**	**100.8**	**182.0**	**325.0**	**518.8**	**831.0**	**1,328.3**	**2,197.6**
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.1	9.2	11.5	14.5	18.1
Other Benefits	1.5	1.4	1.7	2.0	2.5	3.0	3.6	4.4
Total working-age benefits	**6.0**	**6.1**	**7.3**	**9.1**	**11.7**	**14.5**	**18.1**	**22.5**
Total benefit expenditure	**94.7**	**106.8**	**189.4**	**334.1**	**530.5**	**845.5**	**1,346.5**	**2,220.1**
Transfers to Northern Ireland	0.7	0.7	0.8	0.0	0.0	0.0	0.0	0.0
Other payments	1.3	1.3	2.0	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**108.9**	**192.1**	**337.1**	**535.1**	**852.4**	**1,357.1**	**2,236.3**
Surplus / (shortfall) of income over outgo	2.2	5.3	-11.2	-52.8	-84.8	-143.6	-233.2	-462.7
Fund balance at end of year	**23.2**	**34.5**	**20.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.7%	23.2%	25.9%	26.0%	26.3%	26.4%	27.6%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	32.2%	10.5%	0.0%	0.0%	0.0%	0.0%	0.0%

E.2 The receipts section of the table highlights the significance of Class 1 NICs, accounting for around 97% of the Fund income throughout the projection period. Similarly State Pension benefits are by far the most significant expenditure accounting for an increasing proportion over the projection period. The table also illustrates the run-off of pre 2016 State Pensions and the rapid growth of new State Pension.

Appendix F: Variant results

F.1 The tables on the following pages show more detailed breakdowns of the projection results shown in the main body of this report, for the period to 2080-81, on the variant sets of assumptions summarised in section 4. As for the base-case projections in Appendix E, all figures are in nominal cash terms.

Table F1: High long-term real earnings growth variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.2**	**41.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	184.6	305.9	509.2	842.8	1,403.7	2,325.8
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.9	5.6	8.2	11.8	17.5	26.9
Investment income	0.1	0.3	0.6	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**189.1**	**311.5**	**517.4**	**854.6**	**1,421.3**	**2,352.7**
Payments								
Pre-2016 State Pensions	88.7	86.3	78.5	48.2	11.7	0.5	0.0	0.0
new State Pensions	0.0	14.5	109.8	305.0	581.1	996.0	1,671.0	2,899.5
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.3	9.5	12.1	15.5	19.6
Other Benefits	1.5	1.4	1.6	2.0	2.4	2.9	3.5	4.2
Total benefit expenditure	**94.7**	**106.8**	**195.7**	**362.5**	**604.7**	**1,011.6**	**1,690.0**	**2,923.3**
Other payments	1.9	2.0	3.0	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**108.9**	**198.7**	**365.5**	**609.2**	**1,018.5**	**1,700.6**	**2,939.4**
Surplus / (shortfall) of income over outgo	2.2	5.3	-9.6	-54.0	-91.8	-163.9	-279.3	-586.7
Fund balance at end of year	**23.2**	**34.5**	**31.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.7%	22.9%	25.6%	25.7%	26.0%	26.1%	27.3%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	32.2%	16.2%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F2: Low long-term real earnings growth variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.2**	**21.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	169.0	254.2	384.3	577.9	874.5	1,316.6
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.8	5.1	7.1	9.5	13.1	18.4
Investment income	0.1	0.3	0.2	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**173.0**	**259.4**	**391.5**	**587.4**	**887.6**	**1,335.1**
Payments								
Pre-2016 State Pensions	88.7	86.3	74.1	42.1	9.5	0.4	0.0	0.0
new State Pensions	0.0	14.5	101.8	257.2	445.2	693.2	1,056.8	1,666.4
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.3	9.5	12.1	15.5	19.6
Other Benefits	1.5	1.4	1.6	2.0	2.4	2.9	3.5	4.2
Total benefit expenditure	**94.7**	**106.8**	**183.3**	**308.5**	**466.5**	**708.6**	**1,075.7**	**1,690.3**
Other payments	1.9	2.0	2.5	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**108.9**	**185.8**	**311.5**	**471.1**	**715.5**	**1,086.3**	**1,706.4**
Surplus / (shortfall) of income over outgo	2.2	5.3	-12.8	-52.2	-79.6	-128.1	-198.7	-371.3
Fund balance at end of year	**23.2**	**34.5**	**8.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.7%	23.4%	26.2%	26.3%	26.6%	26.7%	27.9%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	32.2%	4.7%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F3: Long-term economic assumptions throughout variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**37.5**	**58.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	118.5	189.7	299.5	475.1	749.4	1,189.8	1,879.2
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	3.0	3.9	5.5	7.9	11.0	15.7	23.0
Investment income	0.1	0.3	0.9	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**121.8**	**194.5**	**305.0**	**483.0**	**760.3**	**1,205.5**	**1,902.3**
Payments								
Pre-2016 State Pensions	88.7	89.6	80.7	47.7	11.2	0.5	0.0	0.0
new State Pensions	0.0	15.2	114.0	301.9	548.5	896.2	1,433.5	2,371.6
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.3	9.5	12.1	15.5	19.6
Other Benefits	1.5	1.4	1.7	2.0	2.4	2.9	3.6	4.3
Total benefit expenditure	**94.7**	**110.9**	**202.0**	**358.9**	**571.5**	**911.8**	**1,452.5**	**2,395.5**
Other payments	1.9	2.2	3.4	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**113.1**	**205.4**	**361.9**	**576.1**	**918.7**	**1,463.1**	**2,411.6**
Surplus / (shortfall) of income over outgo	2.2	8.7	-10.9	-56.9	-93.1	-158.4	-257.6	-509.4
Fund balance at end of year	**23.2**	**46.2**	**47.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.2%	23.0%	25.9%	26.1%	26.4%	26.5%	27.7%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	41.6%	23.4%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F4: High short-term real earnings growth variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**45.3**	**116.6**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	125.8	204.1	322.3	511.2	806.2	1,280.0	2,021.3
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	3.1	4.1	5.7	8.2	11.4	16.4	24.2
Investment income	0.1	0.4	1.9	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**129.3**	**210.1**	**328.0**	**519.4**	**817.7**	**1,296.4**	**2,045.5**
Payments								
Pre-2016 State Pensions	88.7	92.0	84.0	49.7	11.6	0.5	0.0	0.0
new State Pensions	0.0	15.7	119.6	317.2	576.2	941.5	1,506.1	2,491.6
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.3	9.5	12.1	15.5	19.6
Other Benefits	1.5	1.4	1.6	2.0	2.4	2.9	3.5	4.2
Total benefit expenditure	**94.7**	**113.8**	**211.0**	**376.2**	**599.7**	**957.1**	**1,525.0**	**2,515.4**
Other payments	1.9	2.4	4.9	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**116.2**	**215.9**	**379.2**	**604.2**	**964.0**	**1,535.6**	**2,531.6**
Surplus / (shortfall) of income over outgo	2.2	13.1	-5.8	-51.1	-84.8	-146.3	-239.2	-486.0
Fund balance at end of year	**23.2**	**58.4**	**110.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	19.5%	22.3%	25.3%	25.4%	25.8%	25.9%	27.0%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	51.2%	52.4%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F5: Low short-term real earnings growth variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**26.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	107.1	166.7	263.3	417.8	659.3	1,046.9	1,653.9
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.7	5.2	7.4	10.2	14.6	21.3
Investment income	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**110.2**	**170.5**	**268.5**	**425.2**	**669.6**	**1,061.5**	**1,675.2**
Payments								
Pre-2016 State Pensions	88.7	85.9	74.9	44.1	10.3	0.5	0.0	0.0
new State Pensions	0.0	14.4	103.2	273.2	496.1	810.5	1,296.4	2,144.8
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.3	9.5	12.1	15.5	19.6
Other Benefits	1.5	1.4	1.6	2.0	2.4	2.9	3.5	4.2
Total benefit expenditure	**94.7**	**106.4**	**185.4**	**326.6**	**518.3**	**826.0**	**1,315.4**	**2,168.6**
Other payments	1.9	2.0	2.0	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**108.4**	**187.3**	**329.6**	**522.8**	**832.9**	**1,326.0**	**2,184.8**
Surplus / (shortfall) of income over outgo	2.2	1.8	-16.9	-61.1	-97.6	-163.4	-264.4	-509.5
Fund balance at end of year	**23.2**	**28.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	21.4%	24.0%	26.8%	26.9%	27.2%	27.3%	28.5%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	26.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F6: Higher proportion of full rate pension variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.1**	**20.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	176.6	279.0	442.6	698.3	1,108.8	1,751.5
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.8	5.3	7.6	10.6	15.1	22.1
Investment income	0.1	0.3	0.2	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**180.7**	**284.3**	**450.2**	**708.9**	**1,123.8**	**1,773.5**
Payments								
Pre-2016 State Pensions	88.7	86.3	76.3	45.0	10.5	0.5	0.0	0.0
new State Pensions	0.0	14.6	108.9	290.1	528.4	864.5	1,382.8	2,287.7
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.3	9.5	12.1	15.5	19.6
Other Benefits	1.5	1.4	1.6	2.0	2.4	2.9	3.5	4.2
Total benefit expenditure	**94.7**	**107.0**	**192.5**	**344.4**	**550.8**	**879.9**	**1,401.8**	**2,311.6**
Other payments	1.9	2.0	2.5	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**109.0**	**195.0**	**347.4**	**555.4**	**886.9**	**1,412.4**	**2,327.7**
Surplus / (shortfall) of income over outgo	2.2	5.2	-14.3	-63.1	-105.1	-178.0	-288.5	-554.2
Fund balance at end of year	**23.2**	**34.2**	**5.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.8%	23.5%	26.7%	27.0%	27.3%	27.5%	28.7%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	31.9%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F7: Lower proportion of full rate pension variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.3**	**42.6**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	176.6	279.0	442.6	698.3	1,108.8	1,751.5
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.8	5.3	7.6	10.6	15.1	22.1
Investment income	0.1	0.3	0.6	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**181.1**	**284.3**	**450.2**	**708.9**	**1,123.8**	**1,773.5**
Payments								
Pre-2016 State Pensions	88.7	86.3	76.3	45.0	10.5	0.5	0.0	0.0
new State Pensions	0.0	14.4	102.5	269.7	488.2	796.6	1,273.8	2,107.5
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.3	9.5	12.1	15.5	19.6
Other Benefits	1.5	1.4	1.6	2.0	2.4	2.9	3.5	4.2
Total benefit expenditure	**94.7**	**106.7**	**186.2**	**324.0**	**510.6**	**812.0**	**1,292.8**	**2,131.3**
Other payments	1.9	2.0	3.0	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**108.8**	**189.2**	**327.0**	**515.2**	**819.0**	**1,303.4**	**2,147.4**
Surplus / (shortfall) of income over outgo	2.2	5.4	-8.1	-42.7	-64.9	-110.1	-179.5	-373.9
Fund balance at end of year	**23.2**	**34.7**	**34.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.7%	22.8%	25.1%	25.0%	25.2%	25.3%	26.5%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	32.4%	18.5%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F8: High unemployment assumption variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.2**	**4.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	171.7	271.2	430.2	678.7	1,077.8	1,702.4
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.7	5.2	7.4	10.3	14.6	21.5
Investment income	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**175.4**	**276.3**	**437.6**	**689.0**	**1,092.4**	**1,723.9**
Payments								
Pre-2016 State Pensions	88.7	86.3	76.3	45.0	10.5	0.5	0.0	0.0
new State Pensions	0.0	14.5	105.7	279.9	508.3	830.5	1,328.3	2,197.6
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.1	9.2	11.5	14.5	18.1
Other Benefits	1.5	1.4	1.9	2.3	2.8	3.4	4.2	5.1
Total benefit expenditure	**94.7**	**106.8**	**189.6**	**334.4**	**530.9**	**845.9**	**1,347.0**	**2,220.9**
Other payments	1.9	2.0	2.1	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**108.9**	**191.7**	**337.4**	**535.4**	**852.9**	**1,357.6**	**2,237.0**
Surplus / (shortfall) of income over outgo	2.2	5.3	-16.2	-61.0	-97.8	-163.9	-265.2	-513.0
Fund balance at end of year	**23.2**	**34.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.7%	23.9%	26.7%	26.7%	27.0%	27.2%	28.4%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	32.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F9: Low unemployment assumption variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.2**	**57.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	181.6	286.8	455.0	717.8	1,139.8	1,800.5
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.9	5.5	7.8	10.9	15.5	22.7
Investment income	0.1	0.3	0.9	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**186.4**	**292.2**	**462.8**	**728.7**	**1,155.3**	**1,823.2**
Payments								
Pre-2016 State Pensions	88.7	86.3	76.3	45.0	10.5	0.5	0.0	0.0
new State Pensions	0.0	14.5	105.7	279.9	508.3	830.5	1,328.3	2,197.6
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.1	9.2	11.5	14.5	18.1
Other Benefits	1.5	1.4	1.4	1.7	2.1	2.5	3.1	3.7
Total benefit expenditure	**94.7**	**106.8**	**189.2**	**333.8**	**530.2**	**845.1**	**1,345.9**	**2,219.4**
Other payments	1.9	2.0	3.4	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**108.9**	**192.6**	**336.8**	**534.7**	**852.0**	**1,356.5**	**2,235.6**
Surplus / (shortfall) of income over outgo	2.2	5.3	-6.1	-44.6	-71.9	-123.3	-201.2	-412.4
Fund balance at end of year	**23.2**	**34.5**	**51.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.7%	22.5%	25.2%	25.2%	25.5%	25.7%	26.8%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	32.2%	27.2%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F10: 2014 ONS high fertility population variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.2**	**31.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	176.6	280.4	451.4	724.7	1,175.8	1,905.2
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.8	5.4	7.8	11.0	16.0	24.0
Investment income	0.1	0.3	0.4	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**180.9**	**285.8**	**459.2**	**735.7**	**1,191.8**	**1,929.2**
Payments								
Pre-2016 State Pensions	88.7	86.3	76.3	45.0	10.5	0.5	0.0	0.0
new State Pensions	0.0	14.5	105.7	279.9	508.3	830.5	1,328.3	2,197.6
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.1	9.3	11.8	15.1	19.4
Other Benefits	1.5	1.4	1.7	2.1	2.5	3.1	3.9	4.9
Total benefit expenditure	**94.7**	**106.8**	**189.4**	**334.1**	**530.7**	**845.9**	**1,347.4**	**2,221.9**
Other payments	1.9	2.0	2.7	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**108.9**	**192.1**	**337.1**	**535.2**	**852.9**	**1,357.9**	**2,238.0**
Surplus / (shortfall) of income over outgo	2.2	5.3	-11.2	-51.3	-76.1	-117.2	-166.2	-308.8
Fund balance at end of year	**23.2**	**34.5**	**19.9**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.7%	23.2%	25.8%	25.5%	25.3%	24.9%	25.3%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	32.2%	10.5%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F11: 2014 ONS low fertility population variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.2**	**31.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	176.6	276.7	431.3	667.3	1,034.1	1,587.3
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.8	5.3	7.4	10.1	14.1	20.0
Investment income	0.1	0.3	0.4	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**180.9**	**281.9**	**438.7**	**677.4**	**1,048.2**	**1,607.4**
Payments								
Pre-2016 State Pensions	88.7	86.3	76.3	45.0	10.5	0.5	0.0	0.0
new State Pensions	0.0	14.5	105.7	279.9	508.3	830.5	1,328.3	2,197.6
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.1	9.1	11.3	13.9	16.7
Other Benefits	1.5	1.4	1.6	2.0	2.4	2.8	3.3	3.9
Total benefit expenditure	**94.7**	**106.8**	**189.4**	**334.1**	**530.3**	**845.0**	**1,345.5**	**2,218.3**
Other payments	1.9	2.0	2.7	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**108.9**	**192.1**	**337.0**	**534.9**	**852.0**	**1,356.1**	**2,234.4**
Surplus / (shortfall) of income over outgo	2.2	5.3	-11.2	-55.1	-96.2	-174.6	-307.9	-627.0
Fund balance at end of year	**23.2**	**34.5**	**20.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.7%	23.2%	26.1%	26.6%	27.5%	28.3%	30.4%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	32.2%	10.6%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F12: ONS high life expectancy population variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**28.4**	**18.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	176.6	279.0	442.6	698.3	1,108.8	1,751.5
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.8	5.3	7.6	10.6	15.1	22.1
Investment income	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**180.7**	**284.3**	**450.2**	**708.9**	**1,123.8**	**1,773.5**
Payments								
Pre-2016 State Pensions	88.7	86.7	78.7	51.9	17.8	2.2	0.1	0.0
new State Pensions	0.0	14.5	106.5	287.9	549.4	952.7	1,596.4	2,743.2
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.1	9.3	11.6	14.6	18.3
Other Benefits	1.5	1.4	1.6	1.9	2.3	2.8	3.3	4.0
Total benefit expenditure	**94.7**	**107.2**	**192.5**	**348.8**	**578.8**	**969.2**	**1,614.4**	**2,765.6**
Other payments	1.9	2.0	2.4	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**109.3**	**194.9**	**351.8**	**583.3**	**976.2**	**1,625.0**	**2,781.7**
Surplus / (shortfall) of income over outgo	2.2	4.9	-14.2	-67.5	-133.1	-267.3	-501.2	-1,008.2
Fund balance at end of year	**23.2**	**33.3**	**4.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.8%	23.5%	27.0%	28.3%	30.1%	31.6%	34.3%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	31.0%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F13: ONS low life expectancy population variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.9**	**44.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	176.6	279.0	442.6	698.3	1,108.8	1,751.5
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.8	5.3	7.6	10.6	15.1	22.1
Investment income	0.1	0.3	0.7	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**181.1**	**284.3**	**450.2**	**708.9**	**1,123.8**	**1,773.5**
Payments								
Pre-2016 State Pensions	88.7	85.9	74.0	38.5	5.6	0.1	0.0	0.0
new State Pensions	0.0	14.5	104.9	271.2	463.6	707.4	1,068.1	1,668.2
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.1	9.2	11.4	14.3	17.8
Other Benefits	1.5	1.4	1.7	2.1	2.6	3.3	4.1	5.1
Total benefit expenditure	**94.7**	**106.4**	**186.2**	**318.9**	**481.0**	**722.1**	**1,086.5**	**1,691.2**
Other payments	1.9	2.0	3.1	3.0	4.6	6.9	10.8	29.1
Total Payments	**96.6**	**108.5**	**189.3**	**321.9**	**485.5**	**729.1**	**1,097.4**	**1,720.3**
Surplus / (shortfall) of income over outgo	2.2	5.7	-8.2	-37.6	-35.3	-20.2	26.5	53.3
Fund balance at end of year	**23.2**	**35.6**	**36.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.7%	22.8%	24.7%	23.6%	22.5%	21.3%	21.0%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	33.3%	19.4%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F14: ONS high migration population variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.2**	**49.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	181.3	291.0	469.3	750.7	1,204.3	1,922.1
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.9	5.6	8.1	11.3	16.3	24.2
Investment income	0.1	0.3	0.7	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**186.0**	**296.6**	**477.4**	**762.0**	**1,220.7**	**1,946.3**
Payments								
Pre-2016 State Pensions	88.7	86.3	76.3	45.0	10.5	0.5	0.0	0.0
new State Pensions	0.0	14.5	106.0	281.5	513.7	849.1	1,386.6	2,336.5
Employment & Support Allowance (contributory)	4.5	4.6	5.8	7.3	9.7	12.3	15.6	19.7
Other Benefits	1.5	1.4	1.7	2.1	2.6	3.1	3.9	4.8
Total benefit expenditure	**94.7**	**106.9**	**189.8**	**335.9**	**536.5**	**865.0**	**1,406.1**	**2,361.0**
Other payments	1.9	2.0	3.2	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**108.9**	**193.0**	**338.9**	**541.0**	**871.9**	**1,416.7**	**2,377.1**
Surplus / (shortfall) of income over outgo	2.2	5.3	-7.0	-42.3	-63.6	-109.9	-196.0	-430.8
Fund balance at end of year	**23.2**	**34.4**	**42.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.7%	22.6%	25.0%	24.8%	25.0%	25.4%	26.7%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	32.1%	22.1%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F15: ONS low migration population variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.2**	**13.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	172.0	266.9	415.9	645.9	1,013.2	1,580.7
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.7	5.1	7.2	9.8	13.8	20.0
Investment income	0.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**175.8**	**272.0**	**423.0**	**655.7**	**1,027.0**	**1,600.7**
Payments								
Pre-2016 State Pensions	88.7	86.3	76.3	45.0	10.5	0.5	0.0	0.0
new State Pensions	0.0	14.5	105.4	278.4	503.0	812.1	1,270.2	2,058.9
Employment & Support Allowance (contributory)	4.5	4.6	5.6	6.9	8.7	10.8	13.4	16.6
Other Benefits	1.5	1.4	1.6	1.9	2.3	2.8	3.3	4.0
Total benefit expenditure	**94.7**	**106.8**	**188.9**	**332.3**	**524.6**	**826.1**	**1,287.0**	**2,079.4**
Other payments	1.9	2.0	2.3	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**108.9**	**191.2**	**335.3**	**529.1**	**833.0**	**1,297.5**	**2,095.6**
Surplus / (shortfall) of income over outgo	2.2	5.3	-15.4	-63.3	-106.1	-177.3	-270.6	-494.9
Fund balance at end of year	**23.2**	**34.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.7%	23.7%	26.9%	27.3%	27.8%	27.6%	28.6%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	32.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F16: ONS old population structure population variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**28.5**	**1.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	172.2	265.4	406.9	620.4	950.0	1,439.2
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.7	5.1	7.0	9.4	12.9	18.2
Investment income	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**175.9**	**270.5**	**413.9**	**629.8**	**963.0**	**1,457.4**
Payments								
Pre-2016 State Pensions	88.7	86.7	78.7	51.9	17.8	2.2	0.1	0.0
new State Pensions	0.0	14.5	106.1	286.3	543.8	932.8	1,532.2	2,583.0
Employment & Support Allowance (contributory)	4.5	4.6	5.6	6.9	8.7	10.6	12.9	15.3
Other Benefits	1.5	1.4	1.6	1.9	2.1	2.4	2.8	3.3
Total benefit expenditure	**94.7**	**107.2**	**192.0**	**347.0**	**572.4**	**948.0**	**1,547.9**	**2,601.6**
Other payments	1.9	2.0	2.0	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**109.2**	**194.0**	**350.0**	**577.0**	**954.9**	**1,558.5**	**2,617.7**
Surplus / (shortfall) of income over outgo	2.2	4.9	-18.1	-79.5	-163.0	-325.1	-595.5	- 1,160.3
Fund balance at end of year	**23.2**	**33.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.8%	24.1%	28.3%	30.5%	33.1%	35.4%	39.2%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	31.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F17: ONS young population structure population variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.9**	**61.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	181.1	291.6	475.6	771.2	1,258.9	2,051.4
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.9	5.6	8.2	11.6	17.1	25.8
Investment income	0.1	0.3	1.0	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**186.0**	**297.2**	**483.8**	**782.9**	**1,276.0**	**2,077.2**
Payments								
Pre-2016 State Pensions	88.7	85.9	74.0	38.5	5.6	0.1	0.0	0.0
new State Pensions	0.0	14.5	105.2	272.7	468.7	724.2	1,118.9	1,780.8
Employment & Support Allowance (contributory)	4.5	4.6	5.8	7.3	9.7	12.4	16.0	20.6
Other Benefits	1.5	1.4	1.7	2.2	2.9	3.7	4.7	6.1
Total benefit expenditure	**94.7**	**106.5**	**186.7**	**320.7**	**486.8**	**740.4**	**1,139.6**	**1,807.6**
Other payments	1.9	2.0	3.5	3.0	4.6	8.6	23.4	73.0
Total Payments	**96.6**	**108.5**	**190.2**	**323.7**	**491.4**	**748.9**	**1,163.0**	**1,880.6**
Surplus / (shortfall) of income over outgo	2.2	5.7	-4.2	-26.5	-7.5	34.0	113.0	196.7
Fund balance at end of year	**23.2**	**35.5**	**57.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.7%	22.3%	23.8%	22.2%	20.9%	19.7%	19.2%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	33.3%	30.5%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F18: Short-term triple lock assumption variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.2**	**41.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	176.6	279.0	442.6	698.3	1,108.8	1,751.5
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.8	5.3	7.6	10.6	15.1	22.1
Investment income	0.1	0.3	0.6	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**181.1**	**284.3**	**450.2**	**708.9**	**1,123.8**	**1,773.5**
Payments								
Pre-2016 State Pensions	88.7	86.3	75.0	43.2	9.9	0.4	0.0	0.0
new State Pensions	0.0	14.5	103.4	266.1	469.7	745.6	1,158.7	1,862.6
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.3	9.5	12.1	15.5	19.6
Other Benefits	1.5	1.4	1.6	2.0	2.4	2.9	3.5	4.2
Total benefit expenditure	**94.7**	**106.8**	**185.7**	**318.6**	**491.4**	**761.0**	**1,177.7**	**1,886.5**
Other payments	1.9	2.0	3.0	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**108.9**	**188.7**	**321.6**	**496.0**	**768.0**	**1,188.3**	**1,902.6**
Surplus / (shortfall) of income over outgo	2.2	5.3	-7.7	-37.3	-45.7	-59.1	-64.4	-129.0
Fund balance at end of year	**23.2**	**34.5**	**33.9**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.7%	22.7%	24.7%	24.1%	23.7%	23.1%	23.4%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	32.2%	18.2%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F19: Currently legislated State Pension age variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.2**	**31.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	176.6	276.5	437.5	682.1	1,073.6	1,677.8
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.8	5.3	7.6	10.5	14.9	21.7
Investment income	0.1	0.3	0.4	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**180.8**	**281.8**	**445.1**	**692.6**	**1,088.5**	**1,699.5**
Payments								
Pre-2016 State Pensions	88.7	86.3	76.3	45.0	10.5	0.5	0.0	0.0
new State Pensions	0.0	14.5	105.7	296.1	534.4	919.5	1,514.0	2,536.3
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.0	9.2	11.3	14.3	17.9
Other Benefits	1.5	1.4	1.7	2.0	2.4	2.9	3.5	4.2
Total benefit expenditure	**94.7**	**106.8**	**189.4**	**350.2**	**556.5**	**934.2**	**1,531.8**	**2,558.5**
Other payments	1.9	2.0	2.7	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**108.9**	**192.1**	**353.2**	**561.1**	**941.1**	**1,542.4**	**2,574.6**
Surplus / (shortfall) of income over outgo	2.2	5.3	-11.3	-71.4	-115.9	-248.5	-453.9	-875.1
Fund balance at end of year	**23.2**	**34.5**	**19.9**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.7%	23.2%	27.4%	27.5%	29.7%	31.0%	33.1%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	32.2%	10.5%	0.0%	0.0%	0.0%	0.0%	0.0%

Table F20: State Pension age increases to maintain future life expectancy at 32% variant

£ billions	2015 -2016	2020 -2021	2030 -2031	2040 -2041	2050 -2051	2060 -2061	2070 -2071	2080 -2081
Fund balance at start of year	**20.9**	**29.2**	**31.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Receipts								
Contribution income	86.5	111.0	176.7	280.8	444.4	700.0	1,109.3	1,751.5
Treasury Grant	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compensation for statutory payment recoveries	2.6	2.9	3.8	5.3	7.6	10.6	15.1	22.1
Investment income	0.1	0.3	0.4	0.0	0.0	0.0	0.0	0.0
Other receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Receipts	**98.8**	**114.2**	**181.0**	**286.1**	**452.0**	**710.6**	**1,124.4**	**1,773.6**
Payments								
Pre-2016 State Pensions	88.7	86.3	76.3	45.0	10.5	0.5	0.0	0.0
new State Pensions	0.0	14.5	105.7	275.5	508.5	830.8	1,328.5	2,197.7
Employment & Support Allowance (contributory)	4.5	4.6	5.7	7.1	9.2	11.5	14.5	18.1
Other Benefits	1.5	1.4	1.7	2.0	2.5	3.0	3.6	4.4
Total benefit expenditure	**94.7**	**106.8**	**189.4**	**329.6**	**530.6**	**845.7**	**1,346.7**	**2,220.2**
Other payments	1.9	2.0	2.7	3.0	4.6	6.9	10.6	16.1
Total Payments	**96.6**	**108.9**	**192.1**	**332.6**	**535.2**	**852.6**	**1,357.2**	**2,236.4**
Surplus / (shortfall) of income over outgo	2.2	5.3	-11.1	-46.4	-83.1	-142.1	-232.9	-462.8
Fund balance at end of year	**23.2**	**34.5**	**20.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings)	23.5%	20.7%	23.2%	25.4%	25.9%	26.2%	26.4%	27.6%
End of year fund balance as multiple of expenditure (including net redundancy payments)	24.4%	32.2%	10.6%	0.0%	0.0%	0.0%	0.0%	0.0%

Appendix G: Glossary

Term	Abbreviation	Description
Additional State Pension		An earnings-related pension payable to employees who paid Class 1 National Insurance contributions between April 1978 and April 2016. Entitlements accrued based on earnings between specified limits. ASP accrued under the State Earnings Related Pensions Scheme (SERPS) up until April 2002 and as the State Second Pension from 6 April 2002.
The Department for Business, Energy and Industrial Strategy	BEIS	Responsible for making Redundancy Payment Scheme awards, and for paying to HMRC an amount to compensate the Fund for the shortfall in NICs resulting from employers withholding NICs to cover the cost of a number of Statutory payments (eg adoption and paternity).
Break-even contribution rate		The level of National Insurance contributions expressed as a percentage of earnings on which contributions are charged which would be required to make the annual income, excluding investment income, equal to expenditure.
Basic State Pension	bSP	A flat-rate pension payable to those who reached SPa before 6 April 2016, requiring at least 30 qualifying years to receive the full benefit rate, with proportionately reduced benefits payable for shorter qualifying periods.
Category A	Cat A	A basic State Pension payable based on an individual's own contribution record.
Category B	Cat B	A basic State Pension payable based on a spouse's contribution record.
Class 1 National Insurance contributions		Contributions payable by employers and employees on earnings falling within certain bands.
Class 1 primary contributions		Contributions payable by employees.
Class 1 secondary contributions		Contributions payable by employers.

Term	Abbreviation	Description
Class 2 National Insurance contributions		Flat-rate contributions payable by self-employed persons.
Class 3 National Insurance contributions		Voluntary contributions paid to enhance benefit entitlement by those not liable to pay contributions as employed or self-employed persons.
Class 4 National Insurance contributions		Earnings-related contributions payable by self-employed persons with profits above the Lower Profits Limit
Contracted-out Deduction	COD	The reduction in the Additional State Pension earned between 6 April 1978 and 5 April 1997 by someone who was contracted out of the State Earnings Related Pension Scheme during that period.
Consumer Price Index	CPI	A measure of the change in price of staple household goods and services
Department for Work and Pensions	DWP	Responsible for the award and payment of most benefits payable from the Fund
Economic and fiscal outlook	EFO	OBR publication setting out medium-term forecasts for the economy and the public finances, and an assessment of whether the Government is likely to meet its fiscal objectives
Employment and Support Allowance	ESA	Benefit payable to those who can't work due to illness or disability. Replaced Incapacity Benefit for new claims from 27 October 2008.
Fiscal Sustainability Report	FSR	OBR publication assessing the long-term sustainability of public finances.
Gross Domestic Product	GDP	A measure of the economic activity taking place in UK economic territory, equivalent to the value added to the economy by this activity
Her Majesty's Revenue and Customs	HMRC	Responsible for collecting NICs and recording them against individuals' contribution records (necessary to determine entitlement to benefits).
Her Majesty's Treasury	HMT	Responsible for oversight of public spending including the welfare system.

Term	Abbreviation	Description
Incapacity Benefit	IB	Benefit payable to those who can't work due to illness or disability. Replaced by Employment and Support Allowance for new claims from 27 October 2008.
Jobseeker's Allowance	JSA	A benefit based on unemployment, which in certain circumstances is payable out of the Fund
Lower Earnings Limit	LEL	The minimum level of earnings required to receive SMP benefits.
Lower Profits Limit	LPL	Class 4 contributions are paid on profits above this level.
Maternity Allowance Threshold	MAT	The minimum level of earnings required to receive Maternity Allowance (£30 a week from April 2017).
National Insurance Contributions	NICs	Contributions of all classes to the NIF.
National Insurance Fund	NIF	The fund established under section 161 of the Social Security Administration Act 1992 to hold contributions in respect of social security benefits, and to provide working capital to ensure these benefits can be paid.
New State Pension	nSP	The flat-rate pension payable to those who reached SPa after 5 April 2016, requiring at least 35 qualifying years to receive the full benefit rate, with proportionately reduced benefits payable for shorter qualifying periods, subject to a minimum of 10 qualifying years.
Office for Budget Responsibility	OBR	Produces independent forecasts for the economy and public finances and assess the long-term sustainability of the public finances.
Office for National Statistics	ONS	Produces UK official statistics related to the economy, population and society, including population projections.
Primary Threshold	PT	Class 1 primary contributions are paid on earnings above this level.
Protected payment	PP	The amount by which an individual's starting amount exceeds the full level of the new State Pension.
Qualifying year	QY	A year of contributions or credits counting towards retirement pension entitlement.

Term	Abbreviation	Description
Quinquennial review	QR	Review of the NIF by the Government Actuary carried out every 5 years under the Social Security Administration Act 1992.
	QR2010	The Government Actuary's review of the National Insurance Fund as at April 2010.
	QR2015	The Government Actuary's review of the National Insurance Fund as at April 2015.
Secondary Threshold	ST	Class 1 secondary contributions are paid on earnings above this level.
Small Earnings Exception		Class 2 contributions are not payable by those earning below this level.
State Earnings-Related Pension Scheme	SERPS	The earnings-related additional retirement pension scheme for those with earnings over the Lower Earnings Limit between April 1978 and April 2002.
State Pension age	SPa	The age from which retirement pensions are payable.
State Second Pension	S2P	The additional retirement pension scheme replacing SERPS for those with earnings over the Lower Earnings Limit from April 2002.
Statutory Adoption Pay	SAP	A benefit on adoption, payable by employers to their employees for up to 39 weeks.
Statutory Shared Parental Pay	SShPP	A benefit on the birth or adoption of a child where SMP or SAP payments have ceased. Payable by employers to their employees for the outstanding period for which SMP or SAP would have been payable.
Statutory Maternity Pay	SMP	A benefit on the birth of a child, payable by employers to their employees for up to 39 weeks.
Statutory Paternity Pay	SPP	A benefit on the birth of a child, payable by employers to their employees for up to 2 weeks.
Statutory Sick Pay	SSP	A benefit payable by employers to their employees for up to 28 weeks to employees who are unable to work owing to illness.
Starting amount		The value of an individual's rights accrued before April 2016 under the new State Pension.

Term	Abbreviation	Description
Treasury Grant		A payment of up to 17% of estimated benefit expenditure in the relevant year to ensure a reasonable working balance in the Fund, made under the Social Security Act out of money provided by Parliament. Previous payments from general taxation receipts were made under different legislation.
Triple lock		Method of up-rating benefits that guarantees that increases will be set at the maximum of 2.5%, average earnings or CPI growth over the previous year.
Upper Earnings Limit	UEL	Rates of primary NICs are significantly lower above this limit.
Upper Profits Level	UPL	Class 4 contributions are payable at a lower rate by self-employed persons on profits above this level.

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