



Government  
Actuary's  
Department

# Government Actuary's Quinquennial Review of the National Insurance Fund as at April 2020





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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

March 2022



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To: The Right Hon. Thérèse Coffey MP, Secretary of State for Work and Pensions  
The Right Hon. Lucy Frazer QC MP, Financial Secretary to the Treasury

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 2015 to 5 April 2020, 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  
Government Actuary  
March 2022

# Contents

<b>1</b>	<b>Executive summary</b>	<b>7</b>
<b>2</b>	<b>Principal projection</b>	<b>10</b>
<b>3</b>	<b>Variant scenarios and sensitivity to assumptions</b>	<b>19</b>
Appendix A:	Comparisons to 2015 review	30
Appendix B:	Main benefit rates	34
Appendix C:	Main features of the contribution system	36
Appendix D:	Key assumptions	37
Appendix E:	Data, methodology and other assumptions	42

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# 1 Executive summary

- 1.1 This report sets out my review of the operation of the Great Britain National Insurance Fund ('the Fund') and my opinion on the extent to which the Fund may be expected to support demand in respect of benefit payments over the period 2020-2021 to 2085-2086.

## Projected financial position of the Fund to 2085-2086

- 1.2 The principal projection to 2085-2086 shows that the Fund balance is projected to rise to £104.9bn in 2032-2033 then to decrease and, in the absence of any additional financing, will be exhausted in 2043-2044. This projection does not allow for any Treasury Grants<sup>1</sup> that may be paid in the future to support projected benefit expenditure.
- 1.3 Changes in the Fund balance are a function of contribution income (mainly National Insurance contributions, 'NICs') and benefit expenditure (mainly state pension payments). As the Fund balance is small relative to annual contribution income and benefit expenditure, small changes in the size of these cashflows can have a large impact on the Fund balance.
- 1.4 Projected changes in the size and age structure of the population of Great Britain mean that during the projection period there is a major increase in the number of state pension recipients relative to the working age population. This leads to Fund expenditure being projected to increase more rapidly than Fund income. The effect of assumed increases in State Pension age ('SPa') has only a limited impact in mitigating this trend.
- 1.5 I have assumed that the Triple Lock will apply throughout the projection period except in April 2022. I have also assumed that contribution thresholds and limits generally increase in line with earnings increases. Since Triple Lock can be higher, but not lower, than earnings, this also causes benefit expenditure to increase relative to contribution income.
- 1.6 The assumptions used to determine the principal projection are based on the Office for National Statistics ('ONS') most recent 2020-based population projection for Great Britain and the Office of Budget Responsibility's ('OBR') most recent economic forecasts.
- 1.7 The development of benefit expenditure and contribution income is considered in more detail in Section 2.

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<sup>1</sup> Further detail is provided in the text box before 2.24.

## Breakeven contribution rate

- 1.8 In addition to projecting income, expenditure and the Fund balance over the projection period, this report also considers the 'breakeven' contribution rate needed each year. This is the overall contribution rate needed such that contribution income is equal to benefit expenditure. Since the majority of contributions are Class 1, I compare the breakeven contribution rate to the combined (employee plus employer) Class 1 NIC (excluding the temporary rise in 2022-2023).
- 1.9 The breakeven contribution rate is a useful measure to consider since, when projected over the long term projection period, it gives an indication of whether or not, and by how much, current NIC rates are sufficient to meet benefit expenditure. In the longer term, the current contribution rates are projected to be insufficient for the Fund to meet projected benefit expenditure, in the absence of additional financing.
- 1.10 In recent years contribution income has largely supported benefit expenditure. In other words current NICs rates have been close to the breakeven contribution.
- 1.11 At present, the breakeven contribution rate is below the current combined Class 1 NIC rate, meaning that Fund income exceeds Fund expenditure. The breakeven contribution rate is expected to exceed the current combined Class 1 NIC rate from 2033-2034, at which point Fund income would not be sufficient to cover Fund expenditure, and the Fund balance would begin to reduce. The imbalance could be addressed through increases in National Insurance contributions or some other source. The disparity between income and expenditure is projected to further increase in later decades, albeit that expected increases in SPa provide some mitigation. Without the injection of additional money into the Fund, the Fund balance would reach zero in 2043-2044.
- 1.12 The combined (employee plus employer) Class 1 NIC rate that would be required to cover benefit expenditure at the end of the projection period is projected to be 33.61%, compared to the current rate of 21.85%.

## Treasury Grants

- 1.13 'Treasury Grants' may be paid into the Fund if the balance of the Fund is projected to fall below one-sixth (16.7%) of estimated annual benefit expenditure. The current legislated maximum amount of a Treasury Grant in a year is 17% of estimated benefit expenditure in that year.
- 1.14 This report suggests that, in the absence of other additional financing, it is expected that Treasury Grants would first need to be paid in 2040-2041 and by 2058-2059 the annual Treasury Grant requirement would exceed the current legislated maximum of 17% of estimated benefit expenditure.

## Variant assumptions

- 1.15 The projection is sensitive to the assumptions used. Section 3 illustrates the sensitivity of the projection to variant demographic, economic and labour-market assumptions. For the variants chosen, demographic assumptions can have major influences on long-term projected outcomes while economic and labour market assumptions may have more immediate short-term impacts.
- 1.16 The 2020-based population projection does not include variant projections so I have prepared the variant projections in Section 3 using variants from the ONS 2018-based principal population projection.
- 1.17 In this report I have not included explicit climate change variants. However the economic assumptions adopted implicitly make an allowance for the cost of decarbonising the economy in line with the approach adopted by the OBR. Furthermore, the variants provided should enable the reader to understand broadly how climate change induced economic and demographic changes could affect the Fund.

## Professional standards and limitations

- 1.18 This work has been carried out in accordance with the relevant actuarial professional standards TAS 100 and ASORP1 issued by the Financial Reporting Council (FRC). The FRC sets standards for actuarial work in the UK.
- 1.19 This report has been prepared for Parliament in accordance with the Social Security Administration Act 1992. It is not appropriate for any other purpose. No other person or third party is entitled to place any reliance on the contents of this report and GAD has no liability to any other person or third party for any act or omission taken, either in whole or in part, on the basis of this report.
- 1.20 This report does not consider the Northern Ireland National Insurance Fund.



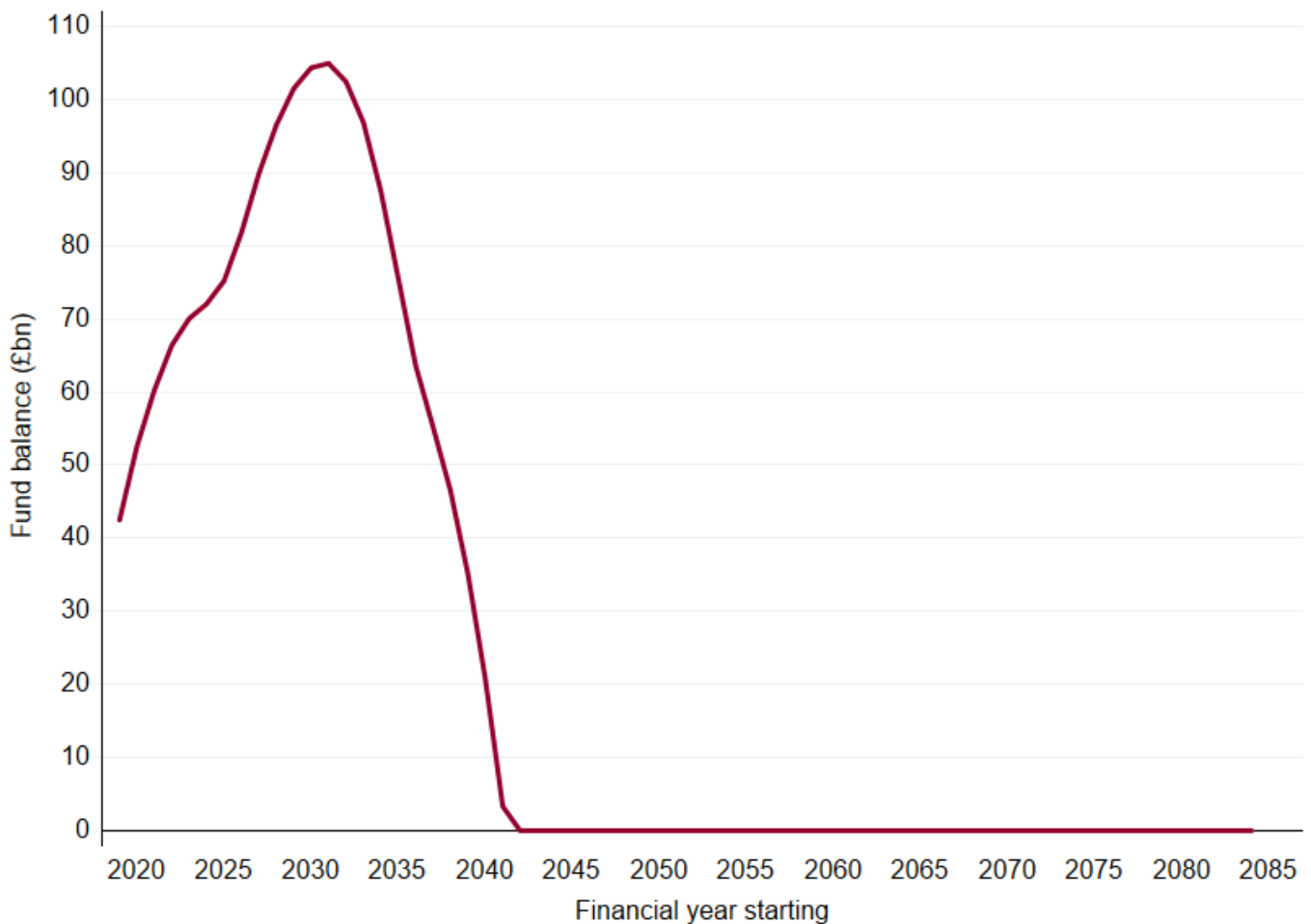
## 2 Principal projection

2.1 This section sets out the principal projection of the Fund balance and the underlying projections of income and expenditure, together with details of the key factors influencing the projection. This section also provides projections of breakeven contribution rates and Treasury Grants.

### Principal projection results

2.2 Chart 2.1 shows the projected Fund balance to 2085-2086 based on the assumptions and methodology set out in Appendices D and E. This shows that the Fund balance is projected to rise to £104.9bn by 2032-2033 then to decrease rapidly with the Fund projected to be exhausted in 2043-2044.

Chart 2.1 – Projected Fund balance 2020-2021 to 2085-2086



- 2.3 The projected increase in the Fund balance, followed by the rapid decline, is a reflection of current income being higher than current expenditure, and benefit expenditure being projected to increase by more than contribution income over the projection period. This means that in the very early years of the projection we see the Fund balance increasing but with expenditure exceeding income from 2033-2034, the Fund balance reduces to exhaustion by 2043-2044. This projection makes no allowance for any additional financing that could be provided in the future.
- 2.4 These features can be seen much more clearly in Chart 2.2 which shows the projected Fund income and expenditure in real earnings terms.

## Real earnings terms



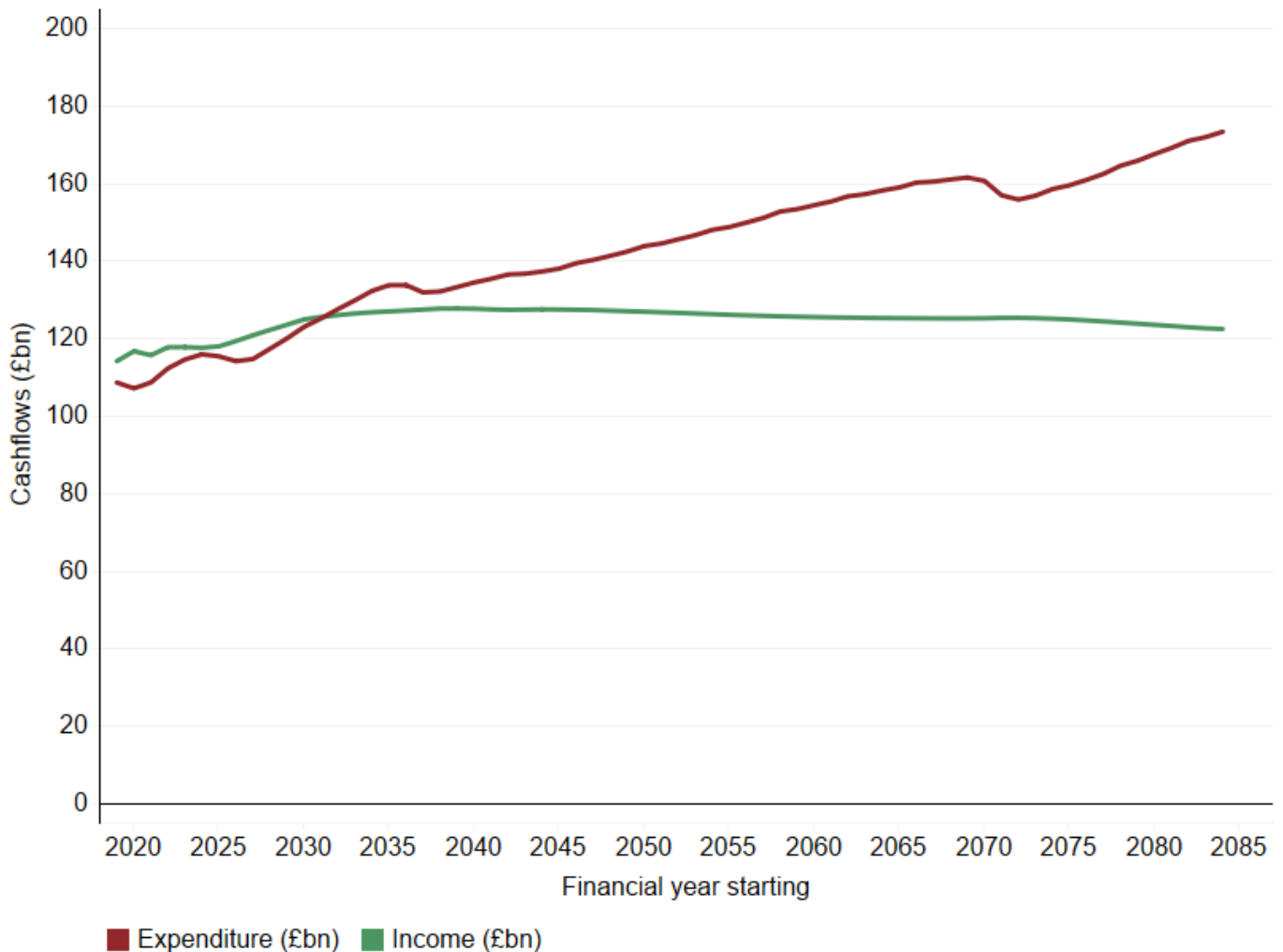
The cashflow projection figures in this review (except for Fund balance projections in Charts 2.1, 3.1 and 3.3) are presented in 'real earnings' terms, meaning that the effect of earnings inflation has been removed from the projection of nominal amounts.

For example the full rate of new State Pension in 2085-2086 is projected to be around £2,279.55 per week in nominal terms. That is the equivalent of £218.78 once the effect of earnings inflation since 2020 has been removed. For comparison the full rate of new State Pension in 2021-2022 is £185.15 per week, which illustrates that Triple Lock increases raise the new State Pension by more than earnings inflation.

This approach has been adopted to facilitate more meaningful comparisons between different projections, which can become difficult in nominal terms over a long projection period.

- 2.5 Chart 2.2 shows a divergence between contribution income and benefit expenditure, with benefit expenditure first expected to exceed contribution income in 2033-2034. The shortfall between projected contribution income and benefit expenditure is projected to increase over time, albeit that expected increases in SPa provide some mitigation.
- 2.6 Contribution income varies in line with assumed earnings growth and employment. Projected changes to employment are small reflecting the net effect of changes in the size and age structure of the working age population and increases to SPa. As a result, contribution income is projected to be relatively flat in real earnings terms. In contrast, benefit expenditure is projected to increase in real earnings terms.
- 2.7 There are two main factors driving the greater real terms increases in projected benefit expenditure:
- demographic changes
  - the Triple Lock up-rating policy

**Chart 2.2 – Projected Fund income and expenditure 2020-2021 to 2085-2086 (in real earnings terms)**

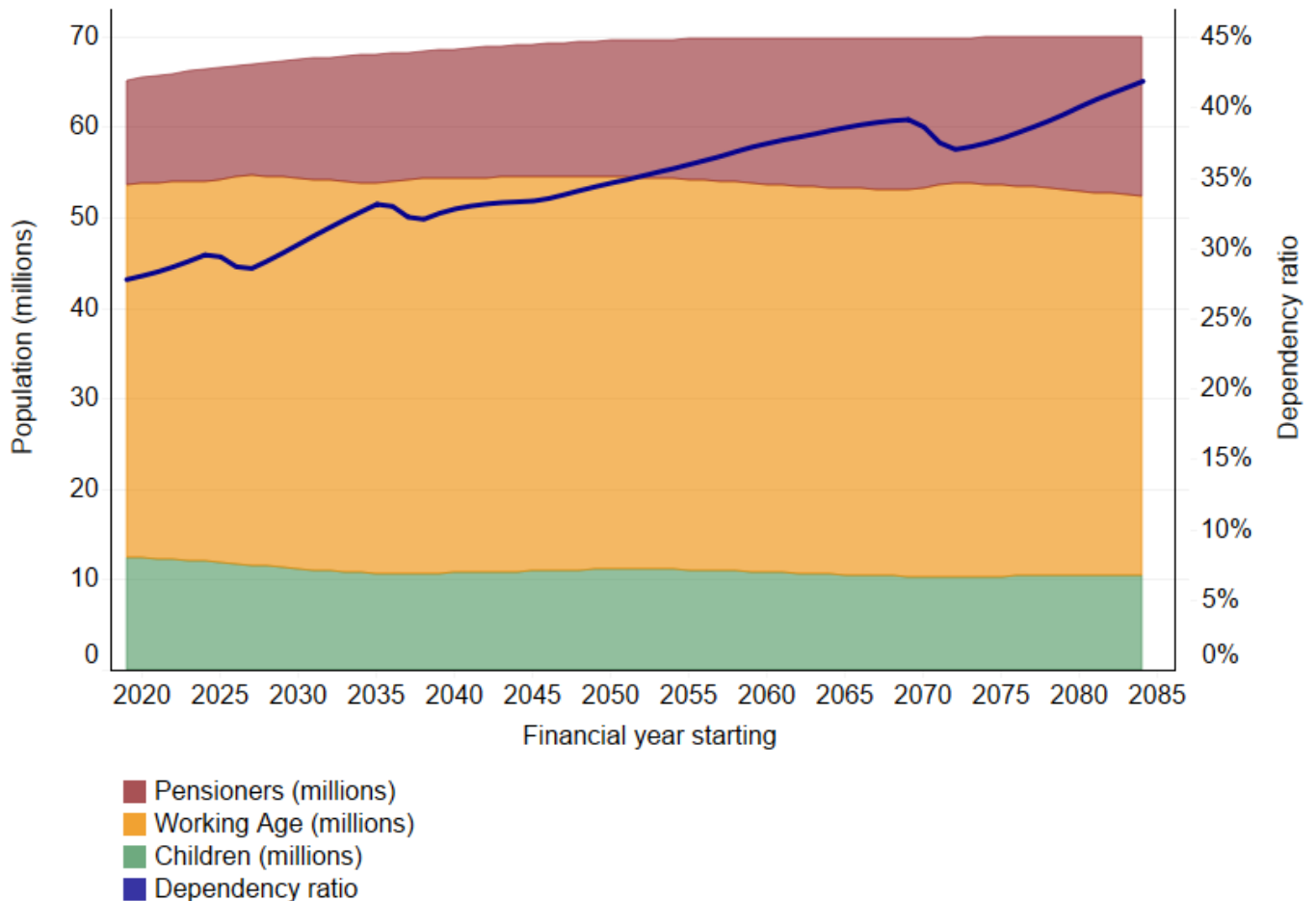


## Demographic changes

- 2.8 Demographic changes are the most significant reason for benefit expenditure being projected to increase by more than contribution income. The age structure of the population of Great Britain is expected to change such that the pensioner population will increase in size relative to the working-age population.
- 2.9 In 2020, 94% of the Fund's benefit expenditure related to state pension benefits, payable to those over State Pension age, whereas contribution income is derived from the working-age population. Therefore, as the relative sizes of each of these population groups change, so does the relationship between contribution income and benefit expenditure.
- 2.10 The relative size of these two population groups can be measured in terms of the 'dependency ratio' - the number of pensioners per 100 working-age people. As this ratio increases, Fund expenditure would generally be expected to rise relative to Fund income.

2.11 Chart 2.3 shows how the size and age structure of the population of Great Britain is projected to change by 2085, based on the 2020-based ONS principal population projection, together with the projected dependency ratio.

**Chart 2.3 – Projected population of Great Britain and dependency ratio**



2.12 Chart 2.3 shows how the dependency ratio is projected to increase between 2020 and 2085, with an increasing number of pensioners dependent on the working-age population. For example, the ratio in 2020 is around 27% whereas it is around 43% in 2085, allowing for an SPa of 69 by that point. The assumed SPa increases moderate the trend of the dependency ratio.

## Declining fertility rate



The fertility rate is the average number of children born per woman. The rate has been around 1.8<sup>1</sup> over the last 40 years, according to ONS data. In the UK a rate of around 2.1 is generally required to maintain the population size (with no net migration).

ONS data show a declining fertility rate in Great Britain and the 2020-based population projection assumes a fertility rate which sits between 1.5 and 1.6. This contributes to a decline in the projected number of working-age adults in future years.

### Triple Lock policy

- 2.13 The Triple Lock policy increases most<sup>2</sup> State Pension benefits by the highest of the Consumer Price Index ('CPI'), earnings growth and 2.5% pa, whereas NIC receipts are projected to increase broadly in line with earnings. That is, these increases cannot be lower, but can be higher, than earnings increases and therefore this would be expected to result in benefit expenditure increasing relative to contribution income.
- 2.14 Details of the short- and long-term assumptions adopted for CPI, earnings and the Triple Lock increase can be found in Appendix D.
- 2.15 The effect of the Triple Lock policy on the Fund over the long term is illustrated by variant projections under an alternative up-rating policy which can be found in Section 3.

### Combined effect

- 2.16 Chart 2.4 shows the expected impacts of the demographic changes, the Triple Lock up-rating policy and other effects on overall increase in benefit expenditure. The effects are shown in terms of percentage increases in projected benefit expenditure in real earnings terms. For example, benefit expenditure in 2085 (in real earnings terms) is projected to be 88% higher than benefit expenditure in 2020, of which 64% relates to demographic changes with the other 24% reflecting the Triple Lock policy.

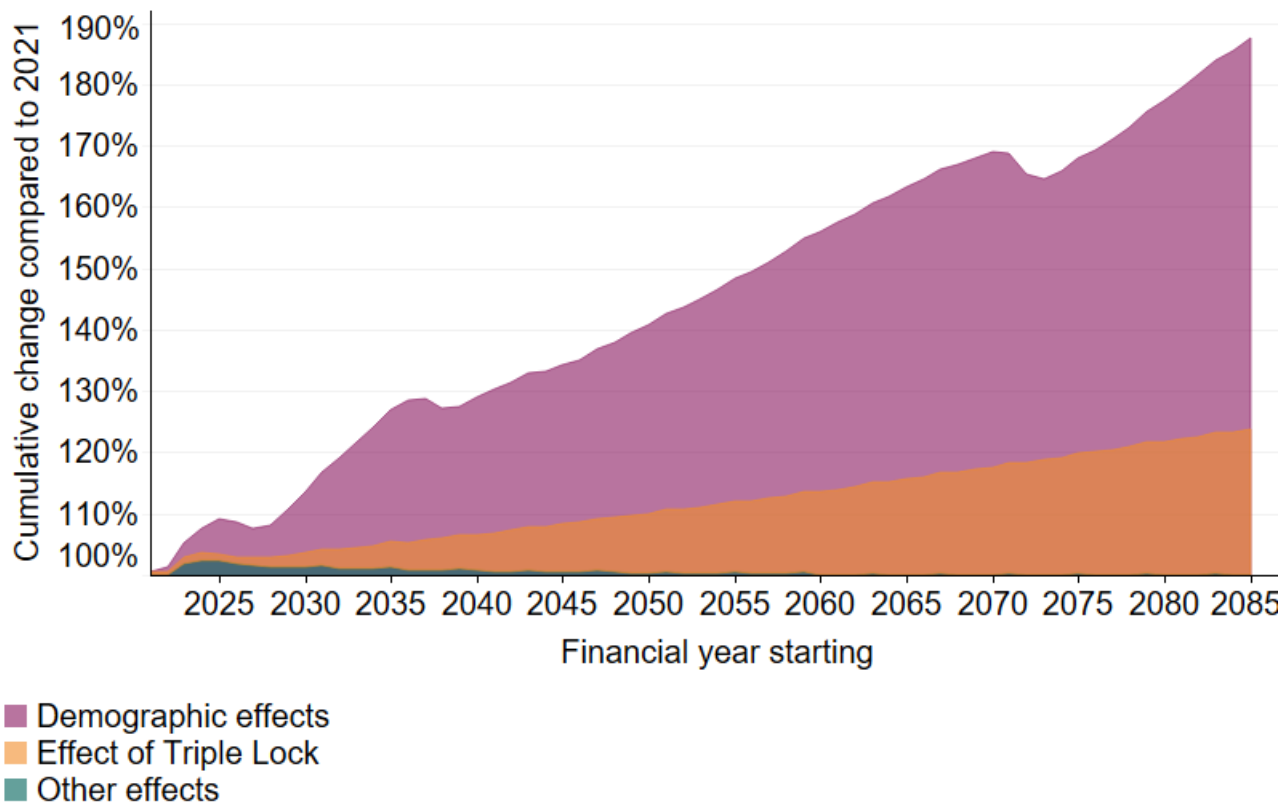
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1

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/methodologies/nationalpopulationprojectionsfertilityassumptions2020basedinterim>

<sup>2</sup> The full rates of basic State Pension and new State Pension are increased in line with the Triple Lock policy.

**Chart 2.4: Factors driving increases in total benefit expenditure (in real earnings terms)**

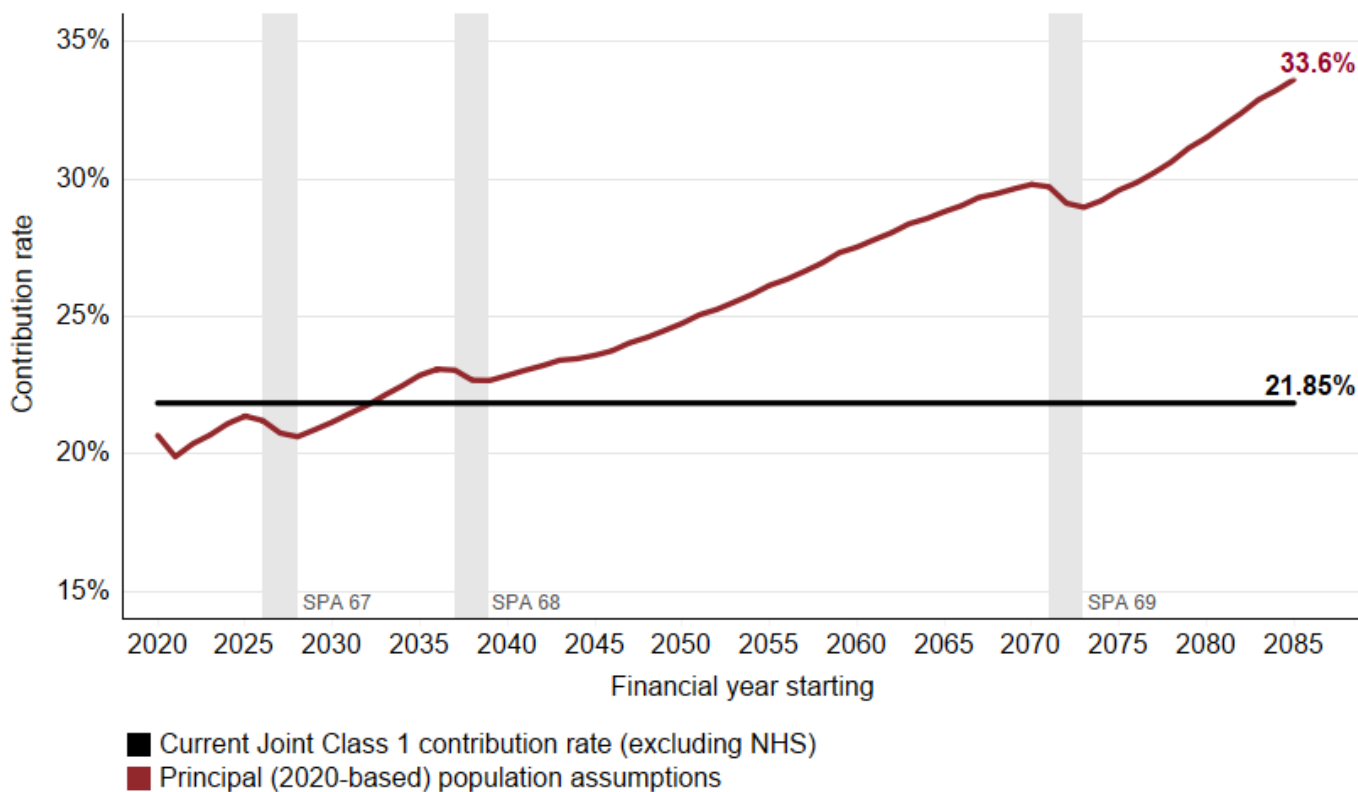


- 2.17 This shows that the demographic changes are the largest element of the projected increases in benefit expenditure and drive the shape of the expenditure projection (the steeper increase in projected expenditure during the 2030s reflects large cohorts expected to reach SPa at that time). The effect of the Triple Lock policy is expected to increase over time.
- 2.18 The other effects include a number of minor, miscellaneous features many of which relate to the ongoing effects of historic changes to the State Pension system, such as the introduction of SERPS in 1978, the introduction of State Second Pension in 2002 and the introduction of new State Pension in 2016. These changes impact benefit payments for many decades after they have been made.

## Additional financing

- 2.19 The principal projection shows that additional financing would be required to meet projected benefit expenditure from the Fund, and that the level of additional financing required is projected to increase further in later decades, with increases in SPa moderating this to an extent. This additional financing could be through increases in National Insurance contributions or some other source, such as a Treasury Grant.
- 2.20 Chart 2.5 shows the projected breakeven contribution rate, that is, the contribution rate required to cover benefit expenditure. This is shown against the current combined (employee plus employer) Class 1 NIC rate of 21.85%. This gives an indication of whether or not, and by how much, current NIC rates are sufficient to meet benefit expenditure.

**Chart 2.5 – Projected breakeven contribution rate required for income to equal expenditure**



- 2.21 In the longer term, the current contribution rate is projected to be insufficient for the Fund to meet projected benefit expenditure. The breakeven contribution rate is expected to exceed the current combined Class 1 NIC rate from 2033-2034. From this point Fund income would not be sufficient to cover Fund expenditure, and the Fund balance would begin to reduce. Without the injection of additional money into the Fund, the Fund balance is projected to fall to zero in 2043-2044.
- 2.22 The breakeven contribution rate at the end of the projection period is projected to be 33.61%, compared to the current combined Class 1 NIC rate of 21.85%. The projection does not include any allowance for any additional financing, such as Treasury Grants.
- 2.23 The trend in the projected breakeven contribution rate follows that for the dependency ratio (shown in Chart 2.3), again highlighting the fundamental influence of the age structure of the population on the finances of the Fund.

# Treasury Grant



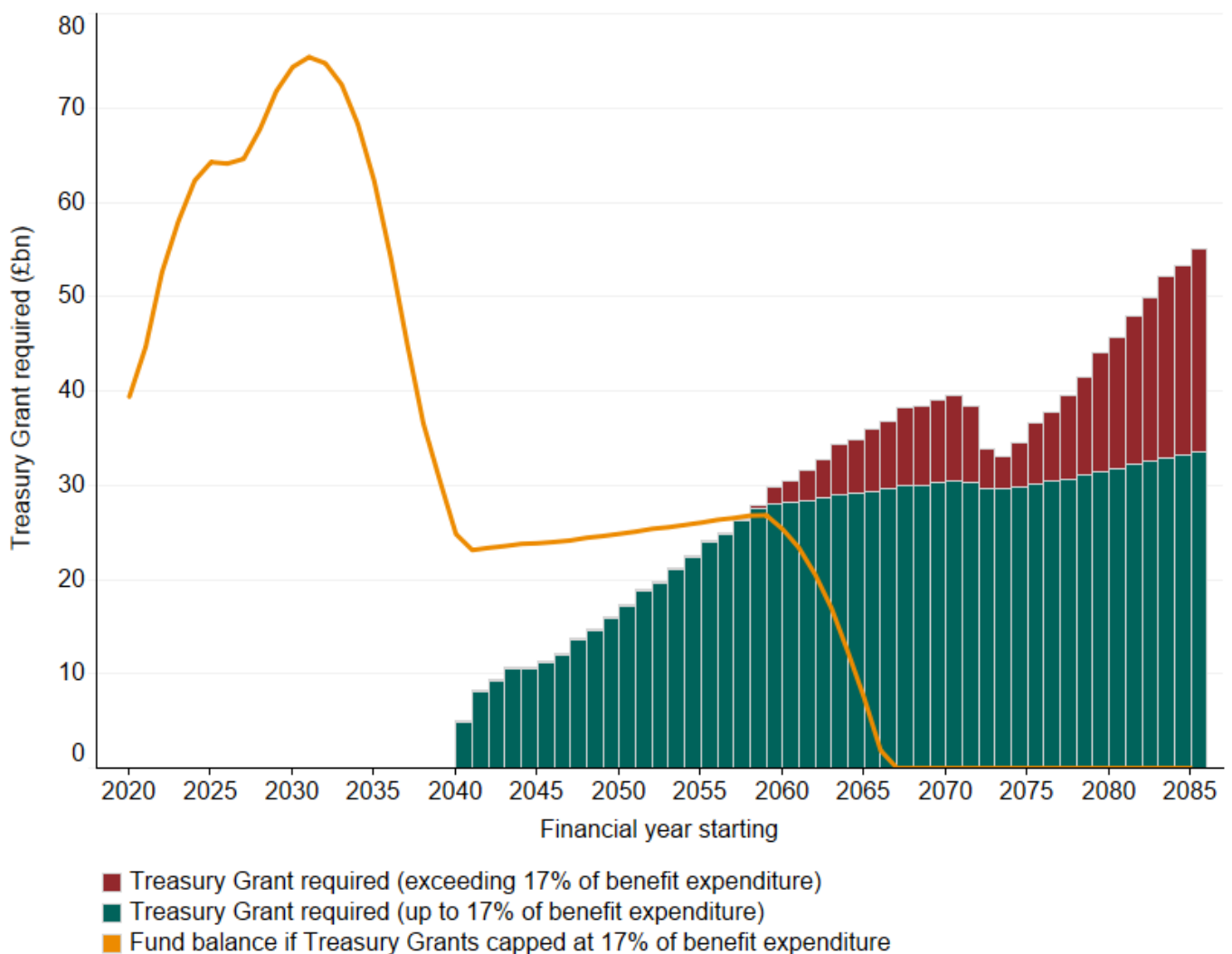
A 'Treasury Grant' may be paid into the Fund if the balance of the Fund is projected to fall below one-sixth (16.7%) of estimated annual benefit expenditure. I reviewed this 'minimum fund balance' in 2020 and recommended it should be kept at one-sixth of estimated annual benefit expenditure.

The current legislated maximum amount of a Treasury Grant in a year is 17% of estimated benefit expenditure in that year.

2.24 I have estimated the Treasury Grant that would be required each year in order to ensure the Fund balance is at least one-sixth of projected benefit expenditure.

2.25 Chart 2.6 shows the Treasury Grant required, with the amounts above the current legislated maximum shown in red. Consistent with the income and expenditure projections provided, I have presented these required Treasury Grants in real earnings terms.

**Chart 2.6 – Projected Treasury Grant requirements (in real earnings terms)**





2.26 Chart 2.6 shows that Treasury Grants would first need to be paid in 2040-2041 and by 2058-2059 the annual Treasury Grant requirement would exceed the current legislated maximum of 17% of estimated benefit expenditure. Therefore, if the assumptions underlying this projection are borne out and Treasury Grants are paid in line with current policy, the current rate of NICs together with the Treasury Grant payments would be insufficient to maintain a Fund balance equal to one-sixth of benefit expenditure.

## State Pension age

- 2.27 Projected expenditure from the Fund depends on the age at which state pension benefits first come into payment, that is, the SPa. The Pensions Act 2014 introduced legislation to provide for regular reviews of SPa to be undertaken, the first of which was in 2017 and the second review is currently underway. The principal projection assumes SPa increases in line with the 2017 review of SPa.
- 2.28 SPa in 2020 is 66 and current legislation provides for this to increase to 67 between 2026 and 2028. In line with the intentions set out following the 2017 review, I have assumed SPa will increase to 68 in 2037-2039 and, based on the 2020 population projection, 69 in 2071-2073<sup>1</sup>.
- 2.29 SPa reviews are required to have regard to life expectancy and other factors. As such, future SPa changes could be very different to those projected in this review. Sensitivity to a different pattern of SPa increases is illustrated by the variant projection provided in Section 3.

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<sup>1</sup> Further detail is provided in D.14

## 3 Variant scenarios and sensitivity to assumptions

- 3.1 The principal projection shown in Section 2 depends on a wide range of assumptions about the future. Such projections are very sensitive to some of the assumptions used, and the degree and likelihood of deviation from the principal assumptions can vary depending upon the specific assumption and the timescale being considered.

### Baseline for variants

- 3.2 I have used the ONS 2020-based population projection for Great Britain for the principal projection provided in Section 2. The 2020-based release does not include variant projections, in recognition of the uncertainty in the mid-2020 base year population estimates and in setting long-term demographic assumptions following the onset of the coronavirus (COVID-19) pandemic. I have therefore prepared the variant projections in this section using the ONS 2018-based principal population projection for Great Britain and the associated variant population projections.
- 3.3 That is, all the variant projections in this section are shown relative to a projection based on the ONS 2018-based principal population projection. The approach adopted for SPA assumptions means that the increase to age 69 occurs between 2068 and 2070 when using the 2018-based population projection. All other assumptions and the methodology used are unchanged from those adopted for the principal projection.
- 3.4 Table 3.1 below provides an overview of the differences between the ONS 2018-based and 2020-based principal population projections for Great Britain.

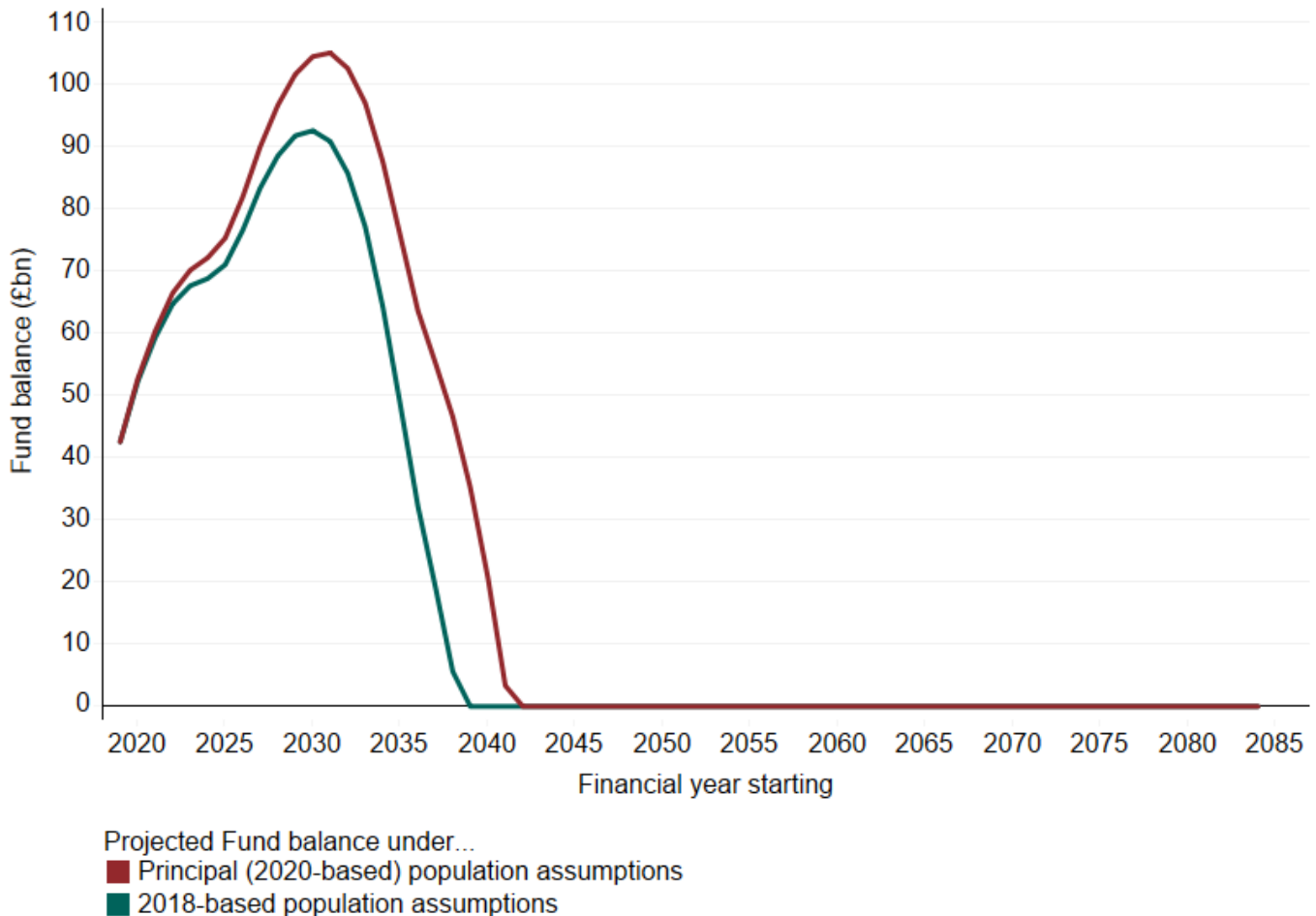
**Table 3.1: Changes in long-term assumptions between ONS 2018-based and 2020-based principal population projection for Great Britain**

Assumption	2018-based	2020-based
Long-term average number of children per woman <sup>a</sup>	1.78	1.59
Net annual long-term international migration	188,500	203,000
Long-term mortality improvement rate to age 90	1.2%	1.2%
Male life expectancy at birth, 2045 <sup>a</sup>	82.8	82.2
Female life expectancy at birth, 2045 <sup>a</sup>	85.7	85.3

a. UK figures

3.5 Chart 3.1 compares the projected Fund balance to 2085-2086 under both the principal assumptions and the principal assumptions using the 2018-based principal population projection. Chart 3.2 shows the corresponding comparison for the projected breakeven contribution rate.

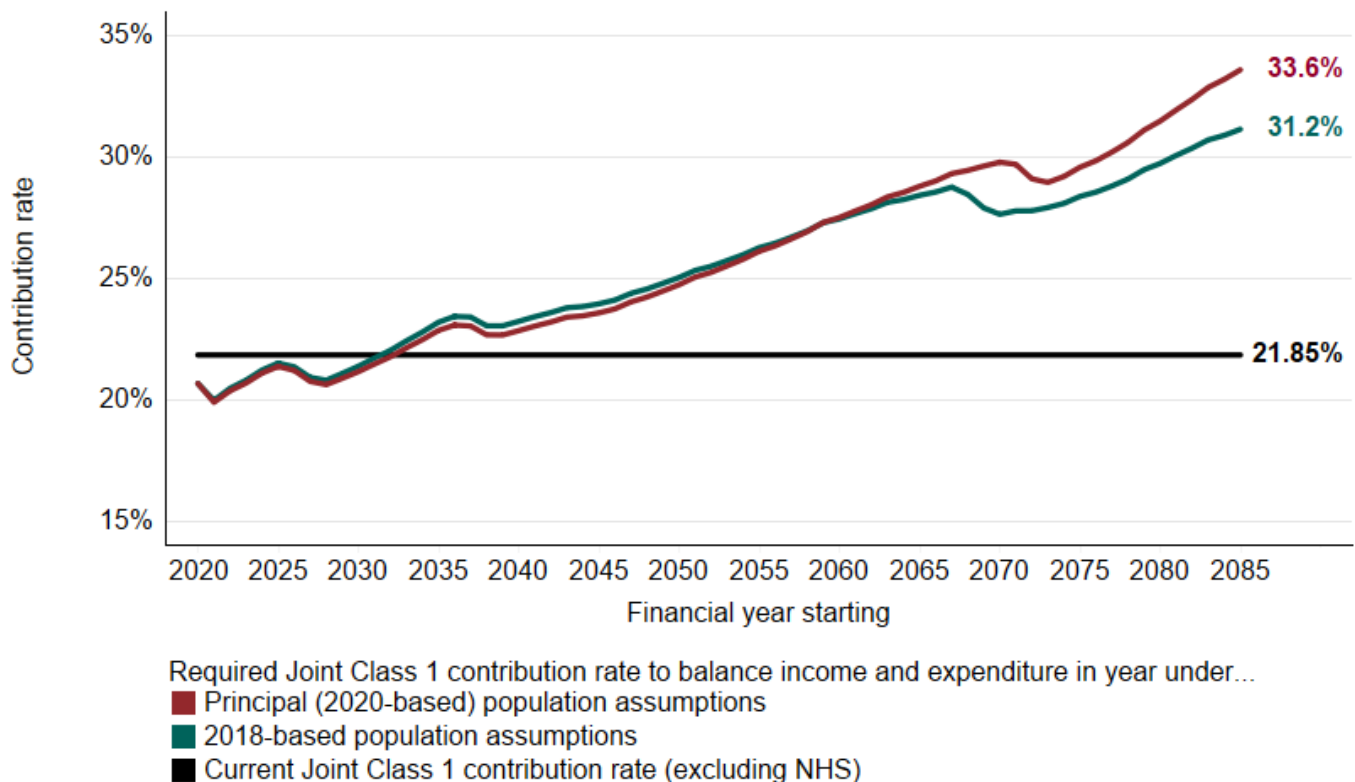
**Chart 3.1 – Projected Fund balance 2020-2021 to 2085-2086 – principal assumptions & 2018-based population assumptions**



3.6 The lower migration assumptions and higher life expectancy in the 2018-based population projection, provide for an earlier exhaustion date when using the 2018-based population projection.

3.7 The differences in the breakeven contribution rate are relatively small until the final 20 years of the projection period when the higher birth rate assumed in the 2018-based population projection feeds into a material increase in the working age population, reducing the rate at which the breakeven contribution rate increases. The earlier increase in SPa to 69 due to higher life expectancy in the 2018-based population projection is also apparent in Chart 3.2.

**Chart 3.2 – Projected breakeven contribution rates 2020-2021 to 2085-2086 – principal assumptions & 2018-based population assumptions**



3.8 Comparing the variant projections in this section with the principal Fund projection in Section 2 captures both:

- the change associated with moving from the 2020 based population projection to the 2018 based population projection and
- the effect of the 2018 population projection based variant

The first of these effects is discussed above and shown at the start of Table 3.2.

## Variant scenarios

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

- Demographic experience
- Economic experience
- Labour market experience
- Policy

Government Actuary's Quinquennial Review of the National Insurance Fund  
as at April 2020

- 3.10 In this section I illustrate the impact on the Fund of varying some of the assumptions in the four areas mentioned above. These variant projections indicate that, whilst these factors can have a material impact on the projected Fund exhaustion point and breakeven contribution rates, it is unlikely that the Fund balance will remain above zero over the long term. The projected Fund balance for these variants is expected to have reduced to zero in all cases by 2058-2059.
- 3.11 In the absence of major changes to benefit or contribution policy, or additional financing such as Treasury Grants, the economic outlook or age structure of the population would need to change materially for scenarios to emerge whereby the Fund is not exhausted during the projection period.
- 3.12 The effect of multiple variant assumptions can broadly be estimated by combining the effects of the relevant scenarios.

**Table 3.2 – Fund exhaustion date and breakeven contribution rate in 2085-2086**

Variant type	Variant	Fund exhaustion date (financial year starting)	Breakeven rate in 2085-2086
Principal projection (with 2020-based ONS population projection)		2043	33.6%
<b>Principal projection (with 2018-based ONS population projection)</b>		<b>2040</b>	<b>31.2%</b>
Demographic	High fertility	2040	29.5%
	Low fertility	2040	34.7%
	High life expectancy	2038	35.1%
	Low life expectancy	2043	25.0%
	High migration	2045	30.0%
	Low migration	2037	32.6%
	‘Old population’	2036	41.5%
	‘Young population’	2058	23.0%
Economic	High long term earnings	2041	30.9%
	Low long term earnings	2039	31.5%
	High short term earnings	2048	30.3%
	Low short term earnings	2036	31.8%
	Long term assumptions	2041	31.2%
Labour market	High unemployment	2036	32.5%
	Low unemployment	2043	30.5%
Policy	Time limited Triple Lock	2048	25.5%
	Alternative SPa path	2039	33.1%

## Variant demographic assumptions

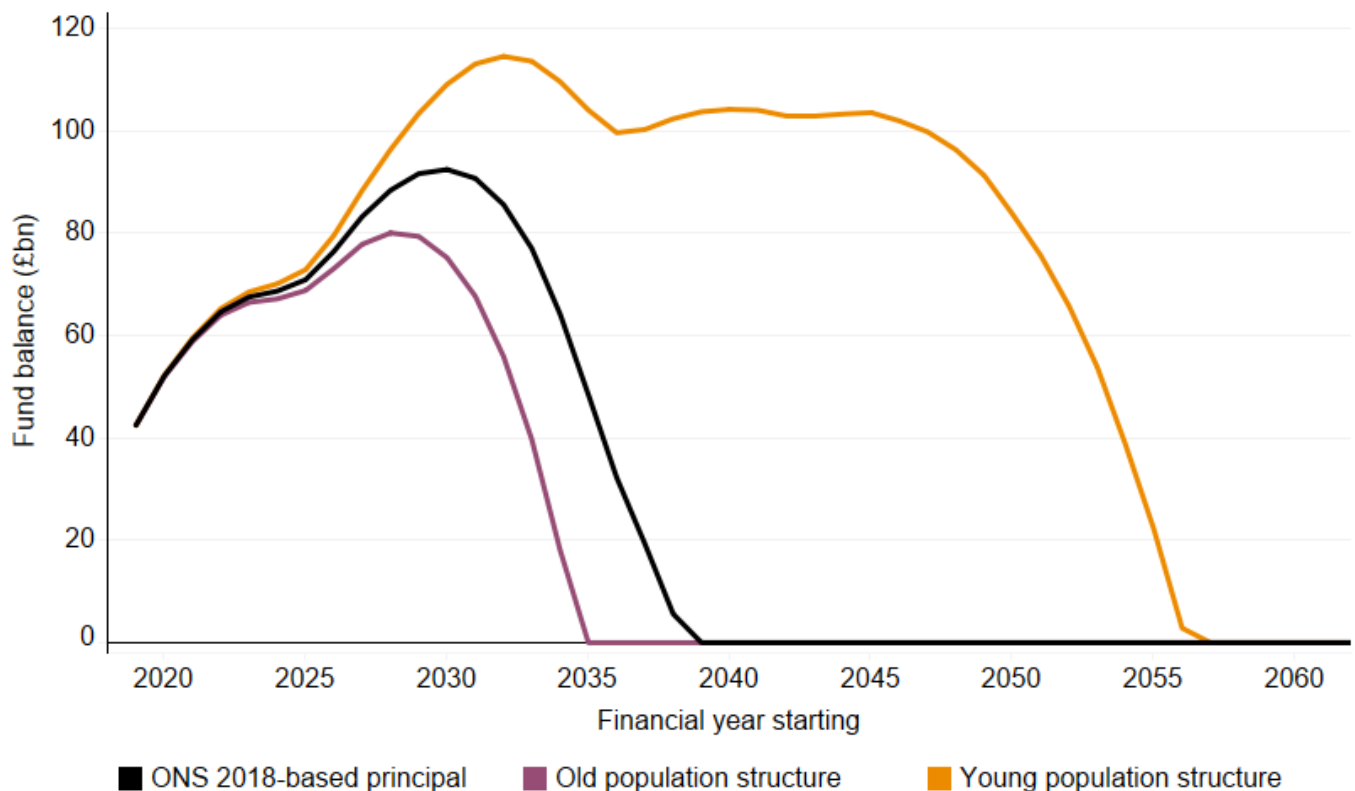
3.13 Details of the variant demographic assumptions are set out in Table 3.3.

**Table 3.3 – Variant demographic assumptions**

<b>Variant</b>	<b>Difference compared to central 2018-based projection</b>
High fertility	0.1 children per woman higher than the central assumption of 1.78
Low fertility	0.2 children per woman lower than the central assumption of 1.78
High life expectancy	Annual rates of mortality improvement converge to 1.9% by 2043, compared to the central assumption of 1.2%
Low life expectancy	Annual rates of mortality improvement converge to 0% by 2043, compared to the central assumption of 1.2%
High migration	Long-term annual net migration to GB to be 99,000 higher than the central assumption of 188,500
Low migration	Long-term annual net migration to GB to be 99,000 lower than the central assumption of 188,500
'Old population'	Combination of low fertility, high life expectancy and low net migration assumptions
'Young population'	Combination of high fertility, low life expectancy and high net migration assumptions

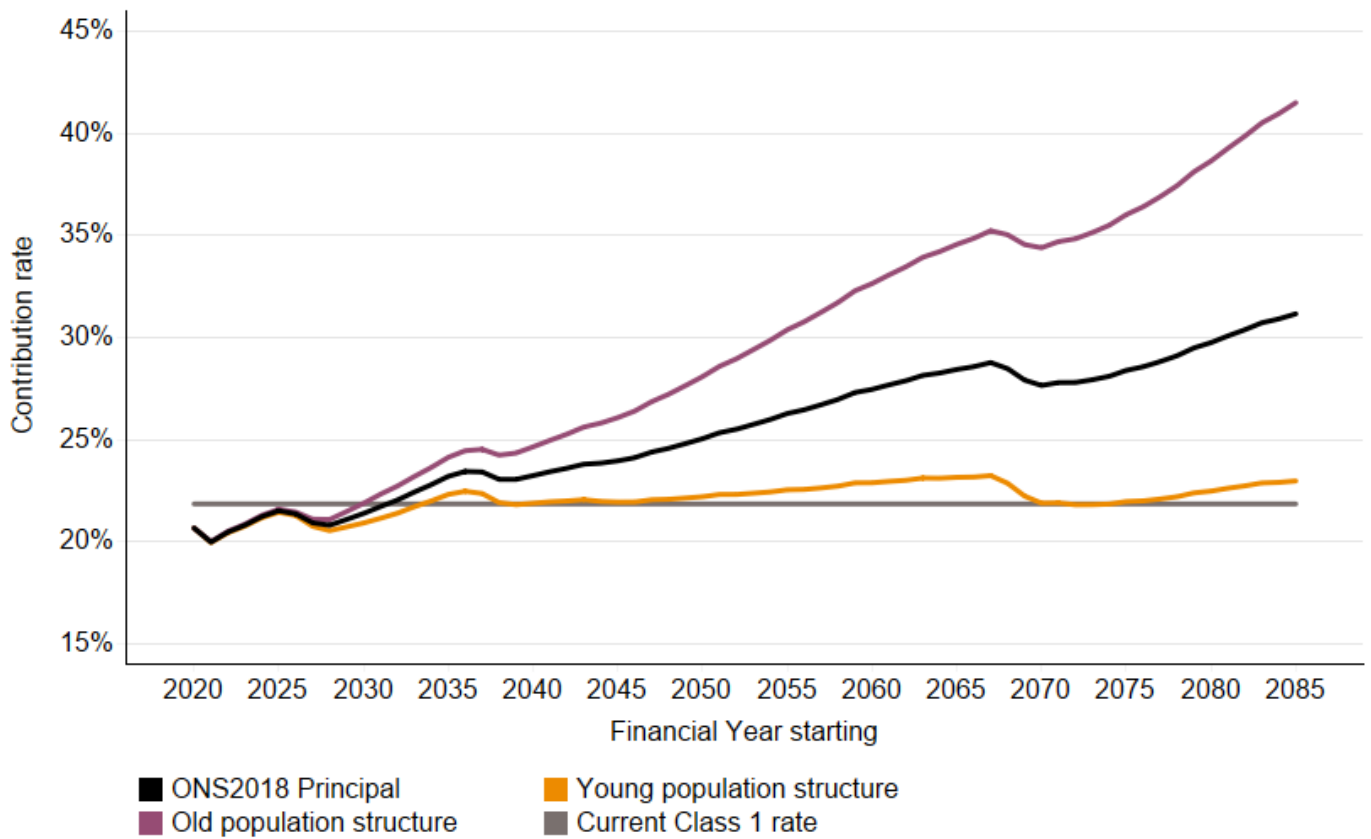
- 3.14 Variation in life expectancy is expected to have a greater effect on the Fund than fertility or migration by the end of the projection period. This is partly a reflection of the variant life expectancy assumptions including a much larger deviation from the principal assumption than the other demographic assumptions in view of the greater uncertainty around future life expectancy.
- 3.15 Fertility rates do not affect pension benefit expenditure within the projection period but would lead to changes in contribution income in later years of the projection period.
- 3.16 The level of migration has an immediate impact on contribution income 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 review of the Fund are much higher or lower than expected, this could potentially have a larger impact on the Fund balance in the short term than indicated.
- 3.17 Charts 3.3 shows the projected Fund balance for the ONS combined 'old' and 'young' population scenarios. Chart 3.4 shows the corresponding breakeven rate projections.

**Chart 3.3 – Young and old populations scenario – Fund balance**



- 3.18 This highlights that even with greatly altered fertility, migration and life expectancy assumptions, e.g. the young population scenario, the Fund is still projected to run down to zero before the end of the projection period. The Fund balance is only small relative to contribution income and benefit expenditure and thus, once the breakeven rate begins to exceed the current contribution rate, the Fund balance can reduce over a relatively short period to exhaustion.
- 3.19 The breakeven rate for the ‘young population’ variant is projected to be very close to the current combined Class 1 NIC rate for much of the projection period. However, in the absence of additional financing such as a Treasury Grant, the Fund balance is still not sufficient to support the Fund during the period for which the breakeven rate is higher than the current rate.
- 3.20 It should also be noted that for the high and low life expectancy and ‘old/young population’ variants, SPa might be expected to change in response to a change in life expectancy, thus moderating the change in breakeven contribution rate.
- 3.21 In practice, there would naturally be some lag between higher or lower life expectancy being projected and changes to SPa being implemented, and life expectancy is only one of the factors that will be considered in reviews of the SPa. An example of a different pattern of SPa increases is described in paragraphs 3.32-3.34.

**Chart 3.4 – Young and old populations scenarios – Projected breakeven contribution rate**



## Variant economic assumptions

**Table 3.4 – Variant economic assumptions**

Variant	Short-term earnings growth (up to 2026-2027)	Long-term earnings growth (2027-2028 onwards)
Higher long-term earnings growth	Principal	Principal +0.5%
Lower long-term earnings growth	Principal	Principal -0.5%
Long term assumptions throughout	Principal long term assumptions	Principal
Higher short-term earnings growth	CPI +3.5%	Principal
Lower short-term earnings growth	CPI	Principal



- 3.22 The experience of the Fund is sensitive to sustained periods of high or low real earnings growth. I have considered the effects of both short- and longer-term deviations from the principal assumptions, as detailed in Table 3.4. I have also considered the scenario where the principal long-term assumptions for earnings, CPI and the Triple Lock increase apply from the start of the projection period, rather than from 2027-28.
- 3.23 Details of the principal assumptions adopted for long-term real earnings growth and CPI inflation can be found in Appendix D.
- 3.24 Higher earnings growth increases both contribution income and expenditure on state pensions. In the short term this results in an increase to the projected Fund balance. However, even when the Fund balance increases much faster than the principal projection, the Fund is still projected to be exhausted by 2048-2049 reflecting the projected increases in expenditure associated with the large cohorts reaching SPa from the late 2020s.
- 3.25 Lower earnings growth results in lower contribution income but the full rates of basic State Pension and new State Pension are increased in line with the Triple Lock. This results in benefit expenditure increasing at a faster rate than contribution income, compared to the principal projection, resulting in the Fund balance falling to zero several years sooner.

## **Variant labour market assumptions**

- 3.26 The Fund projection is impacted by the assumed level of employment in the population, as this affects the numbers of individuals paying NICs. In my principal projection I assumed long term unemployment of 4.0% in line with assumptions made by OBR in their July 2020 Fiscal Sustainability Review. For the purposes of illustrating the sensitivity of the Fund balance 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 2.0%
- with consistent changes in levels of employment in each case.
- 3.27 As might be expected, 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.

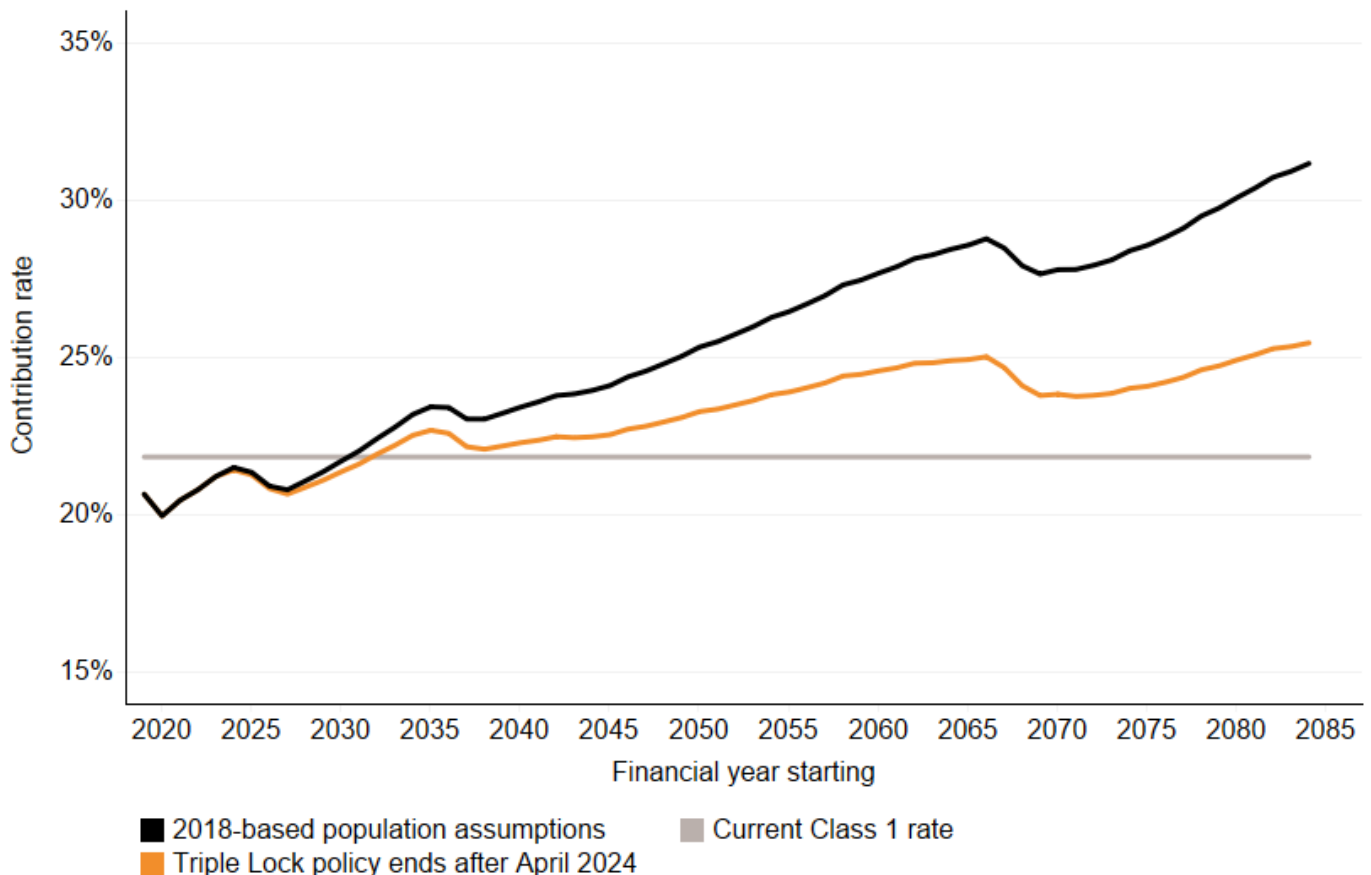
## **Policy**

- 3.28 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 alternative policy approaches covering:
- Up-rating of State Pension benefits
  - State Pension age

### Up-rating of State Pension benefits

3.29 The full rates of the basic State Pension and new State Pension 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, I have allowed for increases in line with Triple Lock by adding a margin of 0.36% a year to the long term earnings growth assumption.

**Chart 3.5 – Variant Triple Lock scenario – Projected breakeven contribution rate**



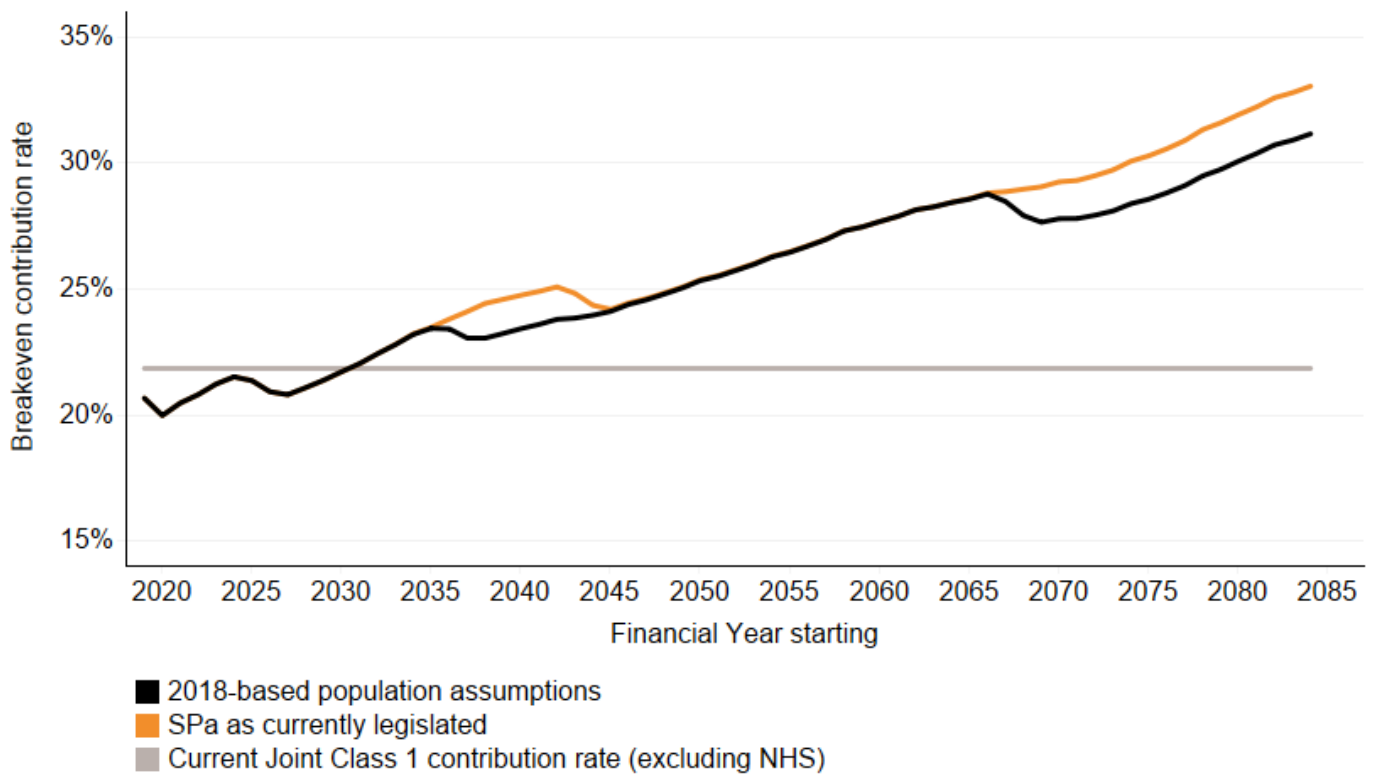
3.30 I have considered a scenario whereby increases in line with the Triple Lock policy are only provided until the end of the current Parliament, that is, increases in relevant benefit rates from April 2025 would revert to increasing in line with earnings, which is the minimum increase currently required under legislation. In this scenario the Fund projection is little changed, with the Fund projected to reach zero 8 years later than in the principal scenario. However, the breakeven contribution rate provides further insight into the potential long term impact of the Triple Lock policy.

3.31 The actual impact of the Triple Lock policy could be much different from either of the two projected scenarios. As the policy involves 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 under Triple Lock increases.

### State Pension age

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

**Chart 3.6 – Variant SPa scenario - Projected breakeven contribution rate**



3.33 The most recent Secretary of State for Work and Pensions report on SPa<sup>1</sup> indicated an expected increase in SPa from 67 to 68 during 2037-2039 and a longer term policy intention for SPa to be set to reflect an aim of up to 32% of adult life expected to be spent beyond SPa. The base-case makes an assumption about how this could be achieved, but policy in this area is subject to review and may change at the upcoming SPa review.

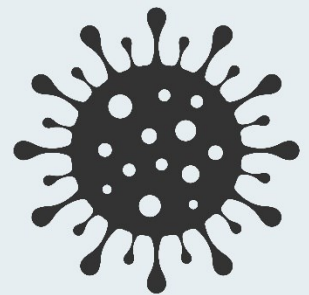
3.34 Chart 3.6 shows the breakeven contribution rates for the current legislated SPa path, and the SPa path associated with the 2018-based population projection. In both cases the long-term breakeven contribution rate is higher than the current NIC rate.

<sup>1</sup> <https://www.gov.uk/government/collections/state-pension-age-review>

## Climate change

- 3.35 I have used long term financial assumptions from OBR's 2020 Fiscal Sustainability Report ('FSR'), and the population projection provided by ONS. OBR assume that a transition to net zero carbon emissions occurs in line with government policy, and that the effect on productivity is broadly neutral. ONS have not made any specific allowance for the effects of climate change in their 2018 or 2020 based population projections. I have not included explicit climate change variants but the variants provided should enable the reader to broadly understand how climate change induced economic and demographic changes could affect the Fund.

## Coronavirus pandemic – a short term shock to the Fund



Although this section has dealt primarily with changes to long-term assumptions, the effects of shorter-term 'shocks' to the Fund should not be overlooked and often have long-term implications. Historic shocks have come in many different forms, such as the 2008 financial crisis and the 2020 coronavirus pandemic.

During the 2020-2021 financial year, with the partial shutdown of the UK economy, Fund revenues were around £5bn\* lower than expected. Benefit expenditure was up slightly by around £0.3bn\*, driven by higher levels of working age benefits. There will also be longer term effects such as a lower number of pensioners following a period of excess deaths, and a drop in the number of babies born.

Whilst it is hard to predict what the next shock might look like, experience suggests that they will continue to occur.

\* figures taken from my [2021 Up-rating Report](#)

## Comparison to previous review

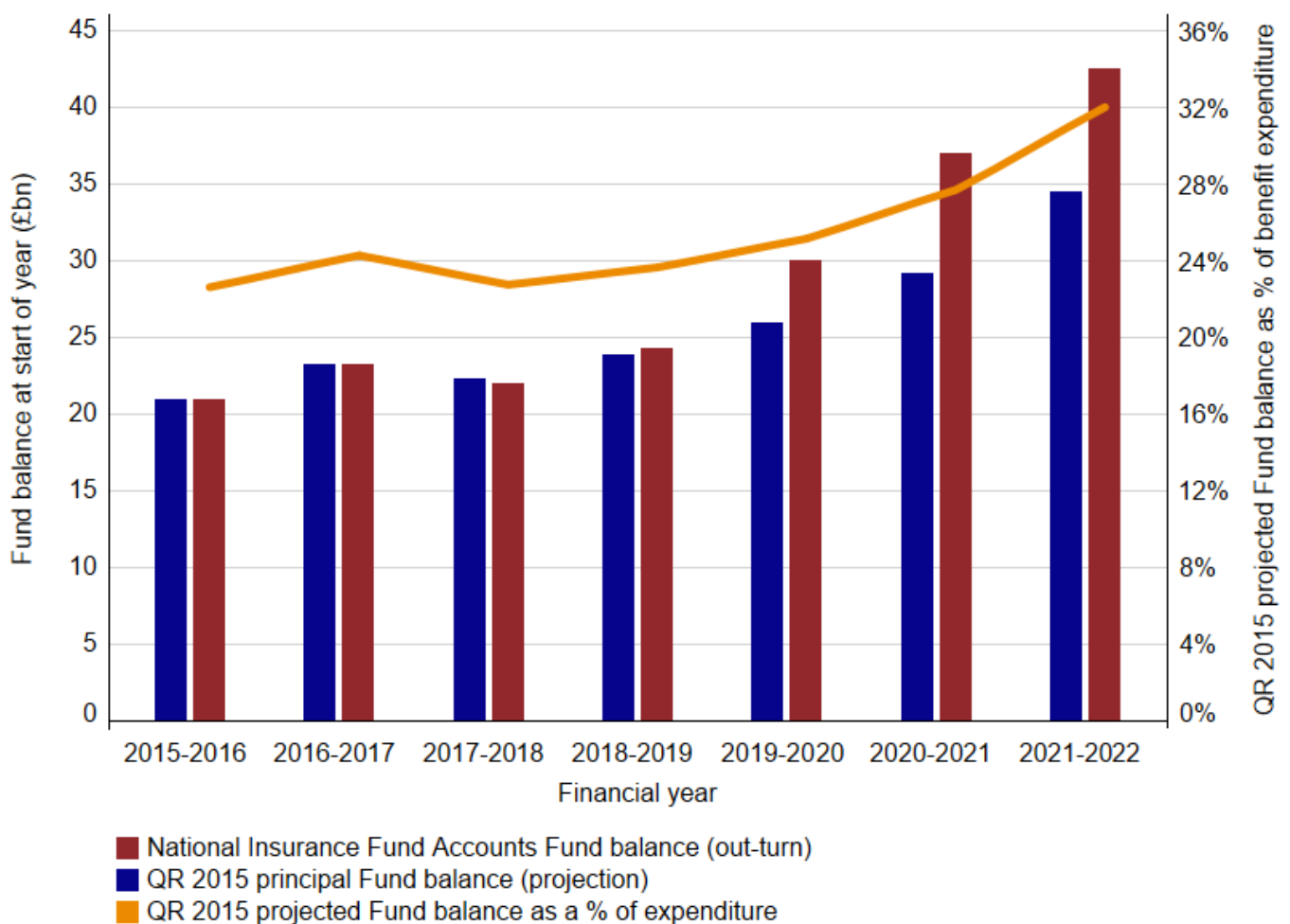
- 3.36 Appendix A provides an overview of the performance of the Fund since the 2015 review and a comparison of the projection in this review and that provided in the 2015 review.

# Appendix A: Comparisons to 2015 review

## Performance of the Fund between 6 April 2015 and 5 April 2021

- A.1 The Fund balance increased from around £21bn in April 2015 to around £42bn in April 2021. As it was projected to run below one-sixth of projected benefit expenditure in 2015-2016, a Treasury Grant of £9.6bn was paid in that year, increasing the balance to around £23bn by April 2016. This was included in my Quinquennial Review 2015 ('QR 2015') projection.
- A.2 Chart A.1 shows the actual outturn since 2015-2016, alongside the projected balance in the principal QR 2015 projection. The 2015 projection used accounts figures for the years up to and including 2015-2016.

**Chart A.1 – Fund balance 2015-2016 to 2020-2021**

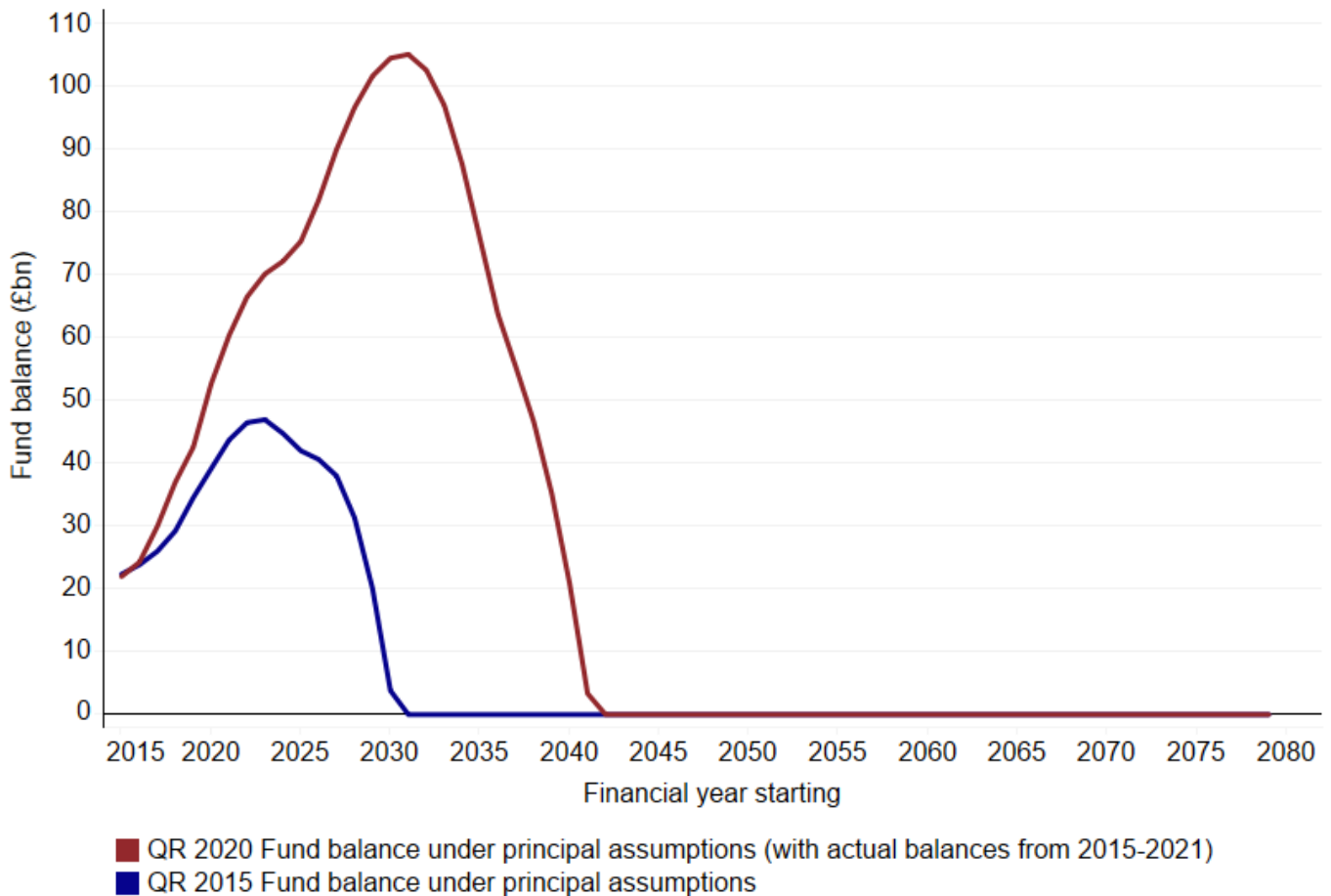


- A.3 Actual Fund income was higher than projected due to actual earnings increases being higher than projected and because the Upper Earnings Limit was increased by more than CPI in April 2019.
- A.4 The cost of benefits was broadly as projected. The overall effect on the actual Fund balance is therefore driven by these earnings increases, although the coronavirus pandemic tempered this growth in the year 2020-2021.

### Comparison to previous projection (6 April 2021 onwards)

- A.5 I have also looked at how the projection after 2020-2021 in this review compare with my QR 2015 projection.

Chart A.2 – Fund balances in QR 2015 and QR 2020



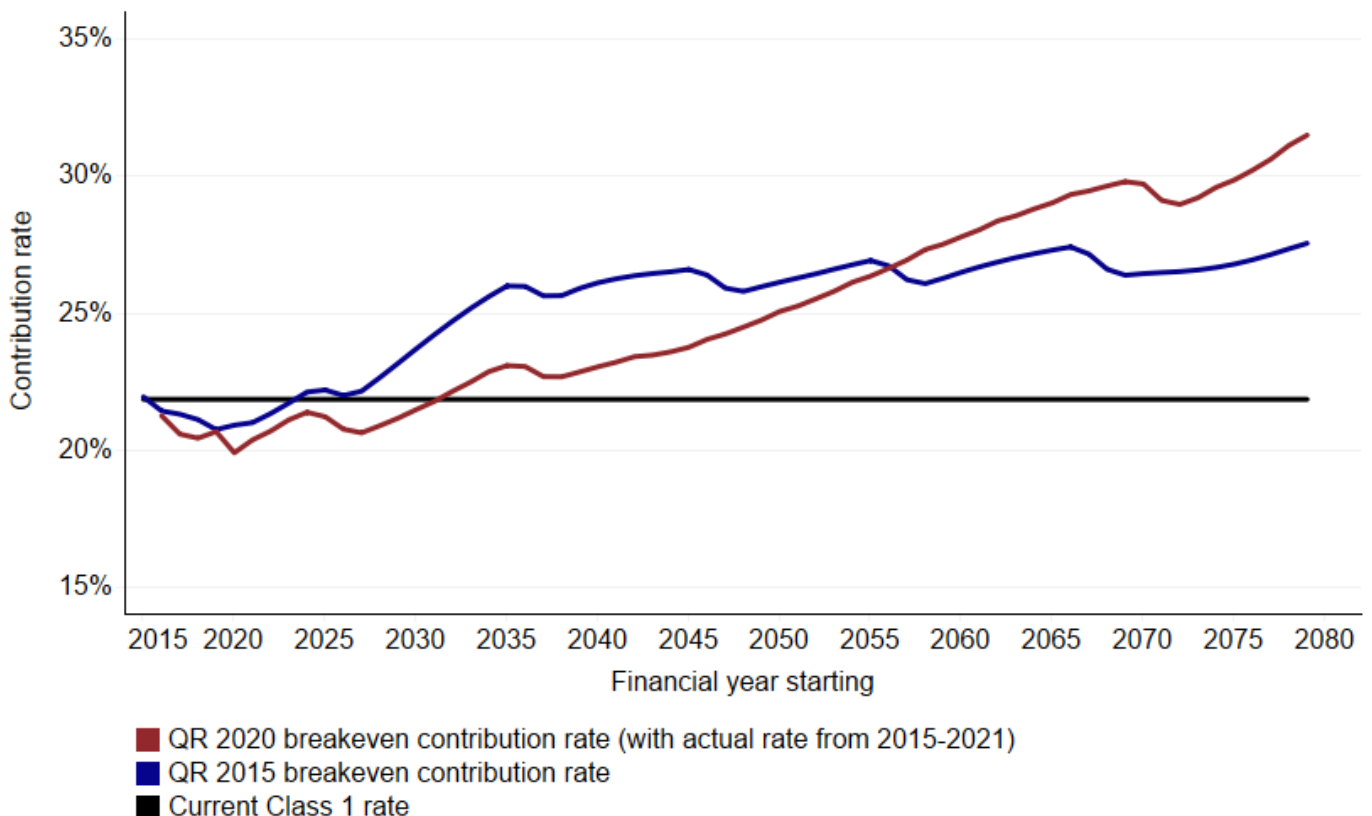
- A.6 It can be seen in Chart A.2 that the Fund balance at 6 April 2021 is higher in this review than in my QR 2015 projection. In my QR 2015 projection, the Fund balance was projected to fall to zero in the early 2030s, whereas in this projection, it is projected to reach zero in the early 2040s.

- A.7 Both contributions and benefits are projected to be lower in this projection compared to my QR 2015 projection, however the difference is greatest for benefits, producing a higher relative Fund balance in future years in this QR 2020 projection.
- A.8 Compared to the QR 2015, contributions are projected to be lower in the 2020 projection because of lower assumptions for future earnings growth in this QR 2020 projection.
- A.9 Compared to the QR 2015, benefit expenditure is projected to be lower in this QR 2020 projection. There are two reasons for this. First, a lower level of projected pension increases (linked to the lower earnings growth via Triple Lock). Second, a smaller number of pensioners due to higher projected mortality rates. My QR 2015 projection used the ONS 2014-based population projection for Great Britain, whereas this projection uses the ONS 2020-based population projection for Great Britain.

**Breakeven contribution rate**

- A.10 In Chart A.3 the breakeven contribution rate is shown for both my QR 2015 projection and this QR 2020 projection, alongside the current combined Class 1 NIC rate. It shows that in my QR 2015 projection, the breakeven contribution rate rose more steeply, but was then steadier, compared to this projection which show a stronger upwards trend.
- A.11 The kinks in the lines represent SPa increases. In my QR 2015 projection, SPa was projected to increase to 71, compared to 69 in this projection.

**Chart A.3 – Breakeven contribution rates in QR 2020 and QR 2015 (excluding NHS components)**



- A.12 The population projection underlying this projection incorporates a lower fertility rate than that underlying my QR 2015 projection. This contributes to the dependency ratio of people above SPa to those of working age, increasing more steeply and to a higher rate of increase in the breakeven contribution rate during the latter two thirds of the projection period.



## Appendix B: Main benefit rates

Table B.1 – Current rates of benefits paid from the Fund

All figures in £s	Weekly rate in 2022-2023
<b>State pension</b>	
New State Pension (full rate) <sup>a</sup>	185.15
Basic State Pension category A or B (paid to individuals over SPa as at 5 April 2016 based on their own contributions or those made by a deceased spouse or civil partner) <sup>b</sup>	141.85
Basic State Pension category BL (paid to an individual over SPa as at 5 April 2016 based on their spouse or civil partner's contributions while the spouse/civil partner is alive) <sup>c</sup>	85.00
Graduated Retirement Benefit (unit)	0.1492
<b>Bereavement benefits<sup>d</sup></b>	
Bereavement Support Payment (lump sum standard rate)	2,500.00
Bereavement Support Payment (lump sum higher rate)	3,500.00
Bereavement Support Payment (monthly payments standard rate)	100.00
Bereavement Support Payment (monthly payments higher rate)	350.00
Widowed parent's allowance (maximum rate)	126.35
<b>Employment and Support Allowance (contributory)<sup>e</sup></b>	
Personal allowance (age 25 or over)	77.00
Work-related activity component	30.60
Support component	40.60
<b>Jobseeker's Allowance (contribution-based)<sup>f</sup></b>	
Personal benefit for those aged 18 to 24	61.05
Personal benefit for those aged 25 and over	77.00
<b>Maternity Allowance<sup>g</sup></b>	
<b>Statutory Maternity Pay, Statutory Paternity Pay, Statutory Adoption Pay, Statutory Shared Parental Pay and Statutory Parental Bereavement Pay</b>	
Standard rate <sup>g</sup>	156.66
<b>Guardian's allowance</b>	
First child/other children	18.55
<b>Increases for the children of widows, widowers, retirement pensioners and those on long-term rate and higher short-term rate of incapacity benefit and recipients of Incapacity Benefit over pension age</b>	
First child	11.35
Other children	8.00
<b>Christmas bonus</b>	
Christmas bonus to pensioners (lump sum)	10.00

a. Under transitional arrangements not everyone receives this rate; awards are based on an individual's National Insurance record. A *de minimis* of 10 years of contributions applies in respect of the new State Pension.

b. Proportionate rates are paid to those with proportionate contribution records. Pensioners in receipt of Category A or B basic State Pensions receive an increase of 25p per week on reaching age 80 (the Age Addition).

## Government Actuary's Quinquennial Review of the National Insurance Fund as at April 2020

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- c. Pensioners in receipt of Category BL basic State Pensions receive an increase of 25p per week on reaching age 80 (the Age Addition).
- d. Bereavement Support Payment (consisting of a lump sum and 18 monthly payments) is available to persons of working age whose spouse or civil partner died on or after 6 April 2017. The higher rate is payable if the surviving spouse or civil partner has dependent children (linked to Child Benefit entitlement). Widowed Parent's Allowance is available to working age parents whose spouse or civil partner died before 6 April 2017 for as long as there is a Child Benefit entitlement.
- e. Employment and Support Allowance (ESA) replaced Incapacity Benefit for new claims from 27 October 2008. The benefit contains some extra additions dependent on the circumstances of the recipients. Everyone who satisfies the Work Capability Assessment will receive a personal allowance and either the work-related activity component or the support component. However, from April 2017 the Welfare Reform and Work Act 2016 provides that new ESA claimants placed in the work-related activity group will no longer receive the work-related activity component. The process to review Incapacity Benefit claims to assess if they can be transferred to ESA is now largely complete.
- f. Unemployed people who meet certain conditions, primarily relating to the payment of NICs in the period recently before they become unemployed, can claim new style Jobseeker's Allowance, a contributory benefit for people who are looking for work. Other unemployed people who either exhaust or have no entitlement to new style Jobseeker's Allowance may receive income-related support through Universal Credit. Universal Credit may also be paid to recipients of new style Jobseeker's Allowance if their income-related benefit requirements exceed the rate of new style Jobseeker's Allowance.
- g. The first 6 weeks of Statutory Maternity Pay and Statutory Adoption Pay are paid at 90% of the recipient's average weekly earnings with no upper limit. Thereafter the remaining weeks (maximum 33) are paid at the standard rate or, if lower, 90% of the recipient's average weekly earnings. Maternity Allowance is paid to employed women for up to 39 weeks at the amount shown or 90% of the woman's average weekly earnings if this calculation results in a figure which is less. The amount of Maternity Allowance a self-employed woman may receive depends on how many Class 2 NICs they have paid in the 66 weeks immediately preceding the week their baby is due. Statutory Paternity Pay, Statutory Shared Parental Pay and Statutory Parental Bereavement Pay are paid at the standard rate or 90% of average weekly earnings if lower.

# Appendix C: Main features of the contribution system

Table C.1 – NIC rates, limits and thresholds

		2022-2023 value
<b>Class 1</b>	Lower earnings limit (LEL)	£123 a week
	Upper earnings limit (UEL)	£967 a week
	Primary threshold	£190 a week
	Secondary threshold	£175 a week
	Upper secondary threshold for under age 21 group	£967 a week
	Upper secondary threshold for relevant apprentices	£967 a week
	Contribution rates (NI Fund and NHS combined)	
Primary (employee)	On earnings between the primary threshold and UEL	13.25% <sup>a</sup>
	On earnings above the UEL	3.25% <sup>a</sup>
	NHS allocation included in above – percentage of earnings between the primary threshold and UEL	3.30% <sup>a</sup>
	– percentage of earnings above the UEL	2.25% <sup>a</sup>
Secondary (employer)	On all earnings above the secondary threshold	15.05% <sup>a</sup>
	Zero-rate on earnings between the secondary threshold and upper secondary threshold for under age 21 group and relevant apprentices	0.00%
	NHS allocation included in above (percentage of all earnings on which contributions are paid for employees earning above the primary threshold) <sup>b</sup>	3.15% <sup>a</sup>
<b>Class 1A and Class 1B</b>	Contribution rate (employer only)	15.05% <sup>a</sup>
	NHS allocation included in above	3.15% <sup>a</sup>
<b>Class 2</b>	Flat-rate contribution	£3.15 a week
	Small profits threshold	£6,725.00 a year
	NHS allocation included in above (percentage of contribution)	15.50%
<b>Class 3</b>	Flat-rate contribution	£15.85 a week
	NHS allocation included in above (percentage of contribution)	15.50%
<b>Class 4</b>	Lower Profits Limit (LPL)	£9,880 a year
	Upper Profits Limit (UPL)	£50,270 a year
Contribution rate	On profits between the LPL and UPL	10.25% <sup>a</sup>
	On profits above the UPL	3.25% <sup>a</sup>
NHS allocation included in above	Percentage of profits between the LPL and UPL	3.40% <sup>a</sup>
	Percentage of profits above the UPL	2.25% <sup>a</sup>

a. Includes a 1.25% temporary addition that will be removed at the end of 2022-2023.

b. The amount of the secondary Class 1 NICs apportioned to the NHS is calculated as the relevant percentage (3.15%) of the total earnings of those employees who earn above the primary threshold. This is in line with the interpretation of subsections (5) and (5A) of section 162 of the Social Security Administration Act 1992 provided to GAD by HMRC.

# Appendix D: Key assumptions

## General

- D.1 The population assumptions used in this report are taken from the Office for National Statistics ('ONS') 2020 and 2018-based population projections for Great Britain. The short-term economic assumptions up to 2026-2027 used in this report are consistent with the central assumptions used by the OBR in its Economic and Fiscal Outlook ('EFO') report published on 27 October 2021. The long-term economic assumptions used are consistent with those in OBR's Fiscal Sustainability Report ('FSR') published on 14 July 2020.
- D.2 My understanding is that both ONS and OBR have determined these assumptions with the intention that there is no allowance for prudence or optimism. In my view, these assumptions are reasonable for the purposes of estimating the financial position of the Fund over the period considered in this report and I have therefore decided to adopt them.
- D.3 My previous report was finalised in October 2017. The estimates in that report were based on the most recent population projection and economic assumptions at that time. These were ONS's 2014-based principal population projection for Great Britain (published in 2015) and the OBR's EFO published in March 2017. Those assumptions are the "QR 2015" assumptions shown in the tables in this appendix.

## Population over State Pension age

- D.4 In the central projection, my assumptions for the number of individuals over SPa are based on the ONS 2020 population projection for Great Britain, published in January 2022. I have also used the ONS 2018 population projection for Great Britain in my variant projections. Table D.1. shows the numbers of people over SPa in different future years in my central projection and compares this to the equivalent numbers from my previous review. These projections do not include any individuals over SPa who receive a state pension while living overseas.
- D.5 ONS have not made any specific allowance for the effects of climate change in their 2018 or 2020 based population projection.

**Table D.1 – Numbers over SPa at the start of the financial year**

Financial year	QR 2015 people-based (millions)	QR 2020 people-based (millions)	Change (millions)
2019-2020	11.9	11.7	(0.2)
2025-2026	13.0	12.4	(0.6)
2035-2036	15.2	14.1	(1.1)
2045-2046	15.9	14.5	(1.4)
2055-2056	16.2	15.4	(0.8)
2065-2066	16.7	16.4	(0.3)
2075-2076	16.6	16.2	(0.4)
2085-2086	N/A	17.6	N/A

## Employment levels

D.6 My assumptions for the number of GB employees are set out in Table D.2 below:

**Table D.2 - Number of GB employees**

Financial year	QR 2015 (millions)	QR 2020 (millions)	Change (millions)
2019-2020	27.3	27.2	(0.1)
2025-2026	27.7	27.6	(0.1)
2035-2036	28.4	29.5	1.1
2045-2046	29.5	30.0	0.5
2055-2056	30.3	29.8	(0.5)
2065-2066	31.1	29.6	(1.5)
2075-2076	32.3	29.4	(2.9)

D.7 The assumed number of employees refers to the number of people employed rather than the number of jobs, as one person may have more than one job. Employees exclude the self-employed. The estimates are less sensitive to the assumed number of self-employed people.

D.8 The short-term assumptions (up to 2026-2027) in Table D.2 have been derived by:

- taking the number of UK employees from Table 1.6 of the supplementary economy tables published alongside the OBR's October 2021 EFO
- adjusting these figures to exclude Northern Ireland employees

D.9 The longer-term employment assumptions have been derived from the cohort employment projection model that OBR used to set employment assumptions for the FSR 2020. This model, originally developed by HMT, has been extensively reviewed by OBR; therefore, I have not examined the model in detail.

D.10 Long-term unemployment is assumed to be constant at 4% of the labour force, implying an employment rate of 96%. Allowance is made for the progression of SPa rises as described below. The model produces UK figures that are then adjusted to exclude Northern Ireland. Employment is split between employees and self-employed based on the split in the October 2021 EFO.

D.11 For NIC modelling, I have blended the short-term assumptions into the longer-term assumptions over five years.

## State Pension age

- D.12 The Secretary of State for Work and Pensions' report on the government's first SPa review<sup>1</sup> was published in July 2017. A second review will be published by 7 May 2023. I have based my assumptions on current legislation and stated policy, as set out in the July 2017 review. Policy may change in the upcoming second review and any changes in SPa policy could materially affect the projection in this review.
- D.13 The 2017 review did not propose any changes to the legislated increase to 67 in 2026-2028, and set out the intention for an increase to 68 in 2037-2039. I have assumed these increases will happen at these times.
- D.14 It also indicated a longer term intention for SPa to be set with 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 an increase in SPa to 69 in line with the 32% policy intention. Under this approach, increases beyond 69 would fall beyond the end of the projection period.
- D.15 This approach results in the first two SPa timetables in Table D.3. The legislated increases are also included. The increase to age 69 falls at different dates under the two ONS population projections because of differing longevity. I have used the ONS 2020-based projection dates for the central projection and the ONS 2018-based projection dates for all variant projections (except the variant SPa scenario in Section 3 using legislated changes only).

**Table D.3 – Assumed progression of SPa**

SPa change	Periods of changes		
	ONS 2018-based projection	ONS 2020-based projection	Legislated changes only <sup>2</sup>
66 to 67	2026-2028	2026-2028	2026-2028
67 to 68	2037-2039	2037-2039	2044-2046
68 to 69	2068-2070	2071-2073	N/A

## Increases in earnings and CPI

- D.16 My assumptions for increases in employee earnings and CPI are set out in Table D.4 below. These represent the increase in earnings over the financial year and the rate of CPI inflation to September. For the QR 2020, the assumptions up to 2026-2027 are taken from tables 1.6 and 1.7 of the October 2021 EFO supplementary economy tables. The long-term assumptions are taken from the table of long-term economic determinants published by the OBR in March 2020, which informed the FSR 2020.

<sup>1</sup> <https://www.gov.uk/government/publications/state-pension-age-review-final-report>

<sup>2</sup> The SPa variant in Section 3 uses legislated SPa increases only.

**Table D.4 - Annual increase in earnings and CPI**

Financial year starting April	CPI <sup>a</sup>			Increase in earnings (employees)		
	QR 2015	QR 2020	Change	QR 2015	QR 2020	Change
2020	2.0%	0.5% <sup>b</sup>	(1.5%)	3.5%	1.4% <sup>b</sup>	(2.1%)
2021	2.0%	3.1% <sup>b</sup>	1.1%	3.7%	5.2% <sup>b</sup>	1.5%
2022	2.0%	3.9%	1.9%	4.3%	4.0%	(0.3%)
2023	2.0%	2.4%	0.4%	4.3%	2.5%	(1.8%)
2024	2.0%	2.0%	0.0%	4.3%	2.3%	(2.0%)
2025	2.0%	2.0%	0.0%	4.3%	3.1%	(1.2%)
2026	2.0%	2.0%	0.0%	4.3%	3.6%	(0.7%)
2027 to 2035	2.0%	2.0%	0.0%	4.3%	3.7%	(0.6%)
2036 to 2085	2.0% <sup>c</sup>	2.0%	0.0%	4.3% <sup>c</sup>	3.8%	(0.5%)

a. September value

b. Known values.

c. QR2015 assumptions apply to 2080.

D.17 OBR assume that a transition to net zero carbon emissions occurs in line with government policy, and that the effect on productivity is broadly neutral.

## Triple Lock

D.18 The full rates of the new State Pension and the basic State Pension are usually increased in line with the Triple Lock policy (the greatest of September CPI price increases, AWE May-July earnings and 2.5% a year). This has been committed to for the duration of this UK Parliament (except for 2022-2023). I have assumed that this policy continues indefinitely, except for one variant projection where I assume Triple Lock applies only to the end of the current Parliament and increases thereafter are in line with earnings (as required by legislation<sup>1</sup>).

D.19 The increases in benefit rates at April 2020, 2021 and 2022 are known, and short-term Triple Lock assumptions for April 2023 – April 2027 are assumed to be in line with the OBR's October 2021 EFO. For April 2028 onwards, I have added a margin of 0.36% to the earnings growth assumption to allow for the impact of the Triple Lock policy. The margin of 0.36% a year is to reflect that the relationship between 2.5%, CPI and earnings will vary from year to year, with different measures being highest in different years. This margin is in line with that used by OBR in their July 2020 FSR.

D.20 The up-rating each April is generally based on earnings from the preceding May-July quarter, therefore the earnings measure used to set the Triple Lock increase may differ from the value in Table D.4.

<sup>1</sup> Social Security Administration Act 1992 150A(2)



**Table D.5 - Annual Tripe Lock increases**

Year of April up-rating	Triple Lock increases		
	QR 2015	QR 2020	Change
2020	2.9%	3.9% <sup>a</sup>	1.0%
2021	3.4%	2.5% <sup>a,b</sup>	(0.9%)
2022	3.6%	3.1%	(0.5%)
2023	4.6%	3.9%	(0.7%)
2024	4.6%	3.1%	(1.5%)
2025	4.6%	2.5%	(2.1%)
2026	4.6%	2.8%	(1.8%)
2027	4.6%	3.5%	(1.1%)
2028 to 2036	4.6%	4.1%	(0.5%)
2037 to 2085	4.6% <sup>c</sup>	4.2%	(0.4%)

a. Known values.

b. Earnings were excluded from the calculation for April 2022.

c. QR2015 assumptions apply to 2080.

## NICs earnings limits

- D.21 NICs earnings limits are assumed to increase in line with prices (CPI) in the short term up to 2026-2027. However, as announced at the March 2021 Budget, I have assumed that the Upper Earnings Limit and the Upper Profits Limit remain constant at the 2021-2022 level up to and including 2025-2026.
- D.22 In order to avoid the projection 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.



# Appendix E: Data, methodology and other assumptions

## General

E.1 During the preparation of this report I have relied on the data sets supplied to me at that time. In particular I have relied on the general completeness and accuracy of the information supplied without independent verification. I have not carried out an independent audit of the data supplied and cannot confirm or guarantee the overall quality or correctness of the data. Any issues with the data could impact on the projection in this report.

## Contributions modelling

### Earnings projection

E.2 Contributions are estimated separately for each class of NICs.

E.3 Estimates of Class 1 NICs are made by first making a projection of workforce earnings based on:

- assumed levels of employment in each year as described in Appendix D, together with an assumed profile of workers by age and gender derived from OBR's cohort employment projection model used for its FSR published in July 2020; employment numbers are broken down between Great Britain and Northern Ireland using ONS labour force data up to 2020-2021 with an allowance for expected future population changes
- earnings distributions, by age and gender; these were derived using the 2019 Annual Survey of Hours and Earnings (ASHE) produced by ONS<sup>1</sup>
- assumptions on the rate of earnings growth from year to year

### Total NICs income

E.4 The projection of earnings is then used to estimate the expected NICs due in each year.

E.5 Other classes of NICs, which generate substantially lower revenues than Class 1, are estimated using simplified models.

E.6 For years up to 2026-2027, Class 1A and Class 1B contributions are estimated using data and projections provided by HMRC. These are UK figures and the amount attributable to Great Britain is taken as a percentage of the UK figure. For later years, the amounts are projected in line with assumed growth in earnings and the total number of employees.

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<sup>1</sup> ONS have no responsibility for the distributions adopted beyond the data that they originally supplied to GAD.

- E.7 Class 2 and Class 4 contributions made by the self-employed are estimated in a similar way to Class 1, but using assumptions on employment, earnings growth and earnings distributions specifically for the self-employed. These earnings distributions are derived from HMRC's Survey of Personal Incomes.
- E.8 Class 3 contributions are a very small part of total NICs. They have been estimated approximately assuming they are stable up to 2026-2027 and thereafter increase in line with earnings and the working age population.
- E.9 Modelled estimates of NICs were compared with data provided by HMRC on actual NIC receipts up to and including 2020-2021. For Classes 2 and 4, I have aligned my estimates with the data on NICs payable in respect of income in 2019-2020, which is largely before the pandemic.
- E.10 For Class 1 NICs, I would normally align with data on NICs due in respect of 2020-2021 earnings. However, the labour market in that year was significantly affected by the pandemic and aligning my estimates with that data may lead to distortions in my estimates for future years.
- E.11 Therefore, for this report, I have aligned my estimates of Class 1 NICs for 2021-2022 with the estimate made by HMRC for OBR's October 2021 EFO. The HMRC figure took into account partial data on PAYE receipts in 2021-2022 and a judgement by OBR on how receipts for the full year are likely to perform. In particular, this will reflect the assumed pace of recovery from the pandemic.
- E.12 I have not analysed how OBR has derived its assumption. However, given I am adopting OBR's economic assumptions more generally, I consider it is reasonable to have regard to their assumption about Class 1 NICs in 2021-2022.
- E.13 In preparing the Fund accounts, HMRC need to split the total UK contributions between those payable to the Great Britain and Northern Ireland Funds. Apart from Class 4, the split has in recent years been set at 98% for Great Britain and 2% for Northern Ireland. However, it is the intention to apply a lower level of rounding from 2021-2022. Therefore, in 2021-2022, it is expected that the split of contributions will be 97.9%:2.1%. I have made an allowance for this change in practice in my estimates. A different split is applied to Class 4 receipts using an analysis of postcodes relating to Class 4 liabilities, and this is not changing.
- E.14 Adjustments are also made to allow for HMRC estimates of the effect of certain measures announced in successive fiscal events that it is not possible to include directly in the calculation models. These adjustments represent less than 0.5% of projected NIC income.
- E.15 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.

### **NICs allocation between the Fund and the NHS**

- E.16 The above calculations focus on making a projection of total NICs. It is then necessary to divide these NICs between those allocated to the Fund and those allocated to the NHS.

- E.17 Class 1 contributions are split between primary Fund and NHS and secondary Fund and NHS contributions based on data derived from end of year returns from the National Insurance PAYE System (NPS) database and provided in the Earnings Limits Scan supplied by HMRC. The latest Earnings Limits Scan provides information up to and including 2019-2020. I have therefore used this information to split the total Class 1 NICs received in 2019-2020, as produced by the calculation model, between the different components. The split of NICs in future years was then derived from the model adjusted so that it is consistent with the split shown by the Earnings Limits Scan information.
- E.18 For Classes 1A, 1B, 2 and 3, the NHS allocations are defined in legislation as a fixed proportion of the total NICs payable, as set out in Appendix C.
- E.19 The NHS allocation for Class 4 contributions is different for contributions paid on profits above and below the Upper Profits Limit. This means there is not a constant ratio between contributions allocated to the Fund and NHS for this class. Therefore, I have used the calculation model to determine the split between the Fund and the NHS shares of the contributions based on the assumed self-employed earnings distribution.

### **Reclaimed NICs for statutory payments**

- E.20 Employers can reclaim a proportion of the statutory payments made to employees from the amounts of Class 1 NICs they pay. The main statutory payments are Statutory Maternity Pay, Statutory Paternity Pay and Statutory Shared Parental Pay.
- E.21 These benefits have little effect on the finances of the Fund. This is because regular payments are made to the Fund from the Consolidated Fund equal to the amounts deducted from NICs by employers. Small employers can also reclaim an element of "compensation" from their NICs and the Fund is not reimbursed for this from the Consolidated Fund. However, these compensation amounts are not material for the Fund as a whole.
- E.22 Given reclaims of statutory payments have little impact on the Fund, I have not modelled them for this report.

### **Other receipts modelling**

- E.23 The investment income has been estimated for future years by applying an assumed rate of investment return to the average balance in the Fund during each future year. The investment return on the Fund is expected to be close to the Official Bank of England Rate (Bank Rate) given that the assets of the Fund are deposited with the Commissioners for the Reduction of National Debt. The assumed rate of investment return is based on OBR's long term forecast of the Bank Rate consistent with their March 2021 EFO.

### **Pension benefits modelling**

- E.24 Estimates of expenditure on contributory benefits are projected separately for each of the following 6 types of benefit:
- Basic State Pension

- Lump sums payable to those who have deferred, and are not yet in receipt of, their basic State Pension
  - Additional Pension (SERPS and S2P)
  - Graduated Retirement Benefit
  - New State Pension
  - Protected Payments (paid alongside new State Pension)
- E.25 The projection approaches adopted for each type of benefit are detailed in paragraphs E.35 to E.82. The projections allow for increases in SPa as set out in paragraphs D.12 to D.15
- E.26 The projections use the following data sets provided by DWP:
- the “quarterly statistical extract” of state pension payments (QSE) data set - this is a data set which contains anonymised data for a 5% sample of individuals in receipt of benefits and the amount of benefit in payment - the estimates in this report are based on the QSE relating to payments as at 31 March 2020 - QSE data sets also include past lump sums paid where the recipient is still in receipt of a benefit
  - the “lifetime labour market database 2” (L2) data set - this is a data set which sets out anonymised data for a 1% sample of the population showing past earnings and contribution record history - the estimates in this report are based on the L2 data set as at 31 March 2020
  - the “forecast data” - this is DWP management data forecasting aggregate amounts of benefit expenditure over the current financial year, revised monthly based on actual out-turn
- E.27 The projections use the following population projections published by ONS:
- The central projection uses the 2020-based population projection for Great Britain
  - The variant projections use the 2018-based population projections for Great Britain, combined with
    - 2019-based population estimate for Great Britain
    - 2020-based population estimate for Great Britain
- E.28 The projections use the 2008-based marital status projection for England and Wales, published by ONS.
- E.29 The ONS data sets were largely determined before the pandemic and consequently the initial benefit projections based solely on them include limited allowance for recent excess pensioner deaths caused by the pandemic or the possibility that fewer deaths might occur in future as a result.
- E.30 The 6 separate benefit projections were scaled so that the 2021-2022 estimates align with the “forecast data” in 2021-2022. I understand that the “forecast data” used (January 2021) allows for actual and assumed excess pensioner deaths due to the pandemic in the year 2021-2022 of around 34,850. This is consistent with the assumption for 2021-2022 excess pensioner deaths made in the EFO.

- E.31 I then applied different adjustment factors in each future year so that my projections are consistent with OBR's other assumption in their EFO that excess pensioner deaths are generally brought forward from the following 8 years.
- E.32 From the data provided I have not been able to identify what proportion of the difference between the individual benefit projections and DWP's forecast data for 2021-2022 is due to excess pensioner deaths and what proportion is due to other factors. This impact of the pandemic therefore creates more uncertainty than usual around the benefit expenditure projections.
- E.33 The overall adjustment factors used in the year 2021-2022 are as set out below and the adjustment factors in future years of the projections differ from these (due to population recovery from excess deaths) by less than 1% for all benefits for all future years:
- Basic State Pension: 1.00
  - Lump sums: 0.98
  - Additional Pension: 1.00
  - Graduated Retirement Benefit: 0.95
  - New State Pension: 0.99
  - Protected Payments: 1.03
- E.34 The majority of the adjustment factors are close to 1.00. Aside from excess pensioner deaths, there are various reasons why I would not expect them to equal 1.00. For example, the QSE data set is only a 5% sample size and is produced close to the extract date so does not allow for corrected payments made retrospectively where incorrect benefit payments have initially been made.

### **Basic State Pension**

- E.35 To project expenditure on basic State Pension, for each projection year, I multiplied together:
- a projected number of people over SPa
  - an assumed "proportion of the population entitled" (PEnt) to any basic State Pension
  - an assumed "mean proportion of the standard rate" (MPnSR) payable to those entitled to any basic State Pension
  - an annual standard benefit rate
- E.36 I have carried out the above calculations separately for each age and for 5 categories of people; men, single women, married women, divorced women and widows.
- E.37 The number of men and women at each age over SPa is taken directly from the relevant population projection. I then split the numbers for women into single, married, divorced and widowed women using ONS's England and Wales 2008-based marital status projection.

*Proportions entitled (PEnt)*

- E.38 For each age for each of the 5 categories of people I have determined a PEnt assumption by comparing the number of people receiving basic State Pension in the QSE data with the number of people in the population projection. For married women I have set PEnt assumptions separately depending on whether entitlement is to Category A pension, Category BL pension or both.
- E.39 This comparison showed that for men and divorced and widowed women the proportion entitled is close to 100% at all ages. For single and married women the proportion is age related matching recent demographic trends - for example that there were more female earners in younger generations. Based on these observations I have set PEnt assumptions as 98% for men, 96% for divorced women, 100% for widows and age related assumptions for single women and married women.
- E.40 The same PEnt assumptions are then used in every year of the projection but with the age related assumption applying to those aged one year older in each subsequent projection year reflecting ageing of recipients.

*Mean proportion of the standard rate (MPnSR)*

- E.41 For each age for each of the 5 categories of people I have determined an MPnSR assumption. This is done by calculating the average amount of basic State Pension for those receiving some basic State Pension in the QSE data and expressing this as a proportion of the standard benefit rate. For married women I have set MPnSR assumptions separately depending on whether entitlement is to Category A pension, Category BL pension or both.
- E.42 This comparison shows that for men and single, divorced and widowed women the proportion entitled is between 90% and 100% at all ages old enough to qualify for basic State Pension. For married women the proportion is age related. Based on these observations I have set MPnSR assumptions as 97% for men, 91% for single women, 94% for divorced women, 98% for widows and age related assumptions for married women entitled to different categories of basic State Pension.
- E.43 The same MPnSR assumptions were then used in every year of the projection but with the age related assumption applying to those aged one year older in each subsequent projection year reflecting ageing of recipients.

*Adjustments for Category D pensions and increments*

- E.44 Some pensioners in receipt of basic State Pension are eligible for an increase in pension up to a specified amount on reaching age 80 (the Category D "Over 80 Pension"). This increase is not based on NICs and is not payable from the Fund but is included and not separately identified in the QSE data. The projection therefore includes an adjustment to the MPnSR assumptions described above to model the exclusion of Over 80 Pension payments from the expenditure projection for basic State Pension. These adjustments range between a 0% and 4% reduction in the MPnSR assumption depending on the category of person being projected. In general larger reductions are made to those with lower MPnSR assumptions.



- E.45 After calculating the MPnSR assumptions described above I have made an adjustment to those assumptions to reflect that some basic State Pension relates to increments paid to those who have previously deferred their basic State Pension and are now in receipt of it. These adjustments reflect the proportion of basic State Pension that is made up of increments as shown in the QSE data and the different up-rating that increments attract (CPI rather than the Triple Lock that generally applies to basic State Pension).
- E.46 Apart from lump sums captured in the lump sums projection described below, new awards in relation to those who have deferred their basic State Pension and are not yet in receipt of it are ignored.
- E.47 Except for women with entitlement to Category BL pension (regardless of any entitlement to Category A), the standard benefit rate for projection year 2022-2023 is £141.85 per week. For women with entitlement to Category BL pension the standard benefit rate for projection year 2022-2023 is £85.00 per week. The standard benefit rates used thereafter are up-rated in line with Triple Lock up-rating implied by the economic assumptions for future projection years.

#### *Overseas pensioners receiving basic State Pension*

- E.48 Pensioners residing overseas are not captured in the approach to projecting basic State Pension expenditure described above as the population projection used only cover those in GB.
- E.49 The QSE data set shows that the net impact of immigration and emigration over SPa is immaterial to the total level of overseas state pension payable. I therefore model payment of basic State Pension to overseas pensioners separately as though this group are a closed population. This separate projection is then added to the basic State Pension projection described above.
- E.50 Payments of basic State Pension to pensioners overseas (including increments already in payment) are projected forward by running off the existing payments shown in the QSE data set. The run off uses mortality rates based on the relevant population projection (i.e. assuming mortality rates for overseas pensioners are in line with those experienced domestically). This projection does not uprate pensions for those living in countries where pensions are frozen.
- E.51 This projection allows for Category B coming into payment to widows at an average aggregate rate equal to 90% of the Category A pension that it derives from and ignore Category B coming into payment to widowers and bereaved civil partners. Apart from lump sums captured in the lump sum projection described below, new awards in relation to those living overseas who have deferred their basic State Pension and are not yet in receipt of it are also ignored.

#### **Lump sums**

- E.52 People reaching SPa before 6 April 2016 can defer payment of their basic State Pension and take a lump sum when they bring their basic State Pension into payment. A projection is made of the amounts of lump sum payable in the future to those still deferring their basic State Pension.

- E.53 Data from the QSE data set (including previous QSE data sets back to 2011) is used to identify those who have reached SPa before 6 April 2016 and who have subsequently taken a lump sum after deferring their pension. The proportion of those reaching SPa in each year before 6 April 2016 who deferred their pension and took a lump sum is then calculated separately for different deferral periods. For each deferral period the average proportion of the maximum lump sum payable (allowing for up-rating of pension in deferment and payment of interest at 2% above the Bank of England base rate) is also calculated.
- E.54 These proportions are then projected forward for each year and applied to all people who reached SPa in each year before 6 April 2016. This provides estimates of the numbers who are still deferring their pension, the length of time before they will cease deferring their pension and the proportion of the maximum lump sum payable they will receive when they cease deferring (allowing for up-rating of pension in deferment and interest). Any lump sums projected to be paid in each year are then added up to produce the projection of lump sums payable in each of those years.
- E.55 This lump sum projection is carried out separately for four groups: males and females with each split into residents of Great Britain or elsewhere.

#### **Additional Pension and Graduated Retirement Benefit**

- E.56 I have projected Additional Pension and Graduated Retirement Benefit by running off the existing payments shown in the QSE data set using mortality rates based on the relevant population projection.
- E.57 The QSE data set shows that people with Additional Pension exhibit lower mortality rates than in the population. Mortality rates used for modelling these benefits are therefore set lower than those implied by the population data in E.27. The adjustments vary by age and sex but, on average for those receiving Additional Pensions, are equivalent to Additional Pensions being in payment for about half a year longer than if standard population mortality rates were used (under current age profile).
- E.58 These projections allow for CPI up-rating of these benefits throughout the projection period with adjustments for Additional Pension for contracting-out deductions and their pre 1988 and post 1988 up-rating rules.
- E.59 These projections allow for the inheritance of benefits to widows, widowers and bereaved civil partners using the 2008-based marital status projection for England and Wales.
- E.60 As the QSE data set includes payment to overseas pensioners this projection approach automatically captures payments of Additional Pension and Graduated Retirement Benefit to overseas pensioners.
- E.61 This modelling approach involves various simplifications which I do not expect to be material. For example, I have ignored the possibility of new awards in relation to current deferrals (new awards to current deferrers will be increasingly rare as the minimum period of deferral increases with the passage of time).



## New State Pension

- E.62 To project expenditure on new State Pension, for each projection year, I multiplied together:
- the projected number of people over SPa
  - an assumed “mean proportion of the standard rate” (MPnSR) representing the average proportion payable to each person once over SPa
  - the annual standard benefit rate
- E.63 I have carried out the above calculations separately for each age and for men and women. The number of men and women at each age over SPa was taken directly from the relevant population projection.
- E.64 This approach differs a little to the basic State Pension projection. This is because the two projections use different data to determine the average amount payable to each person over SPa. This derives from there being no new awards of basic State Pension and relatively few recipients of new State Pension in the QSE data used.
- E.65 For each age for men and women I have determined an MPnSR assumption using the QSE and L2 datasets. For each individual in the L2 dataset I have assumed that their post 6 April 2020 contribution record extends such that when they reach SPa they have completed between half and 70% of their remaining potential qualifying years (with younger workers more likely to achieve a qualifying year in a given financial year).
- E.66 The same MPnSR assumptions were then used in every future year of the projection but with the age-related assumption applying to those aged one year older in each future projection year reflecting the ageing of recipients.
- E.67 This leads to an MPnSR assumption of around 90%-95% for both men and women. The MPnSR decreases as age increases, so future recipients are assumed to have a slightly higher MPnSR than current recipients. The lower MPnSR assumptions for older members reflects a number of factors, including changes to SPa and the effects of historic contracting-out.
- E.68 The standard benefit rate for projection year 2022-2023 is £185.15 per week. This is thereafter up-rated in line with Triple Lock up-rating implied by the economic assumptions for future projection years.
- E.69 This new State Pension projection assumes no-one chooses to defer new State Pension. This assumption is made because of limited data on deferral behaviour and because deferrals are offered on terms that are broadly cost neutral.
- E.70 The projection of new State Pensions is based on data as at 31 March 2020. At this time, new State Pensions had only been payable for a few years and so the estimates of expenditure on these (including Protected Payments) are based on more limited data than other expenditure.

*Overseas pensioners receiving new State Pension*

- E.71 Pensioners residing overseas are not captured in the approach to projecting new State Pension expenditure described above as the population projection used only covers those in GB.
- E.72 The new State Pension projection therefore include a separate projection for new State Pension payable to individuals residing overseas. This separate projection is then added to the new State Pension projection for those resident in Great Britain described above.
- E.73 New State Pensions already in payment to those residing overseas are captured in the QSE data set and are projected using the same run off approach and same assumptions as used to project overseas basic State Pensions already in payment (see paragraphs E.48 to E.51 above) but with no inheritance.
- E.74 New awards of new State Pension arising from those reaching SPa in the future while resident overseas are then included in each starting and future projection year by multiplying together:
- the total projected number of new overseas pensioner awards each year
  - an assumed average proportion of the standard rate of new State Pension put into payment
  - the standard benefit rate allowing for up-rating
- E.75 The projection of new awards of new State Pension overseas is carried out separately for four groups: men and women and whether pensions in the overseas country of residence are frozen or not.
- E.76 The total number of new overseas pensioners reaching SPa in each projection year is projected by assuming that the rate of new awards to overseas pensioners between 2016 and 2020 (compared to the numbers of recent new awards in GB) continues at the same rate beyond 2020.
- E.77 The assumed average proportion of the standard rate is derived from QSE data across all benefit types and are:
- 60% for males with frozen benefits
  - 46% for males with non-frozen benefits
  - 57% for females with frozen benefits
  - 49% for females with non-frozen benefits
- E.78 As there are high deferral rates for overseas new awards the approach described above is adjusted to allow for deferrals assuming that 50% of those reaching SPa each year defer payment by up to five years. An allowance is also added for the increments such deferrers would receive.

## Protected Payments

- E.79 Those reaching SPa from 6 April 2016 onwards may be entitled to Protected Payments in addition to new State Pension. A person's protected payment is their entitlement at the introduction of the new State Pension based on the pre-Pensions Act 2014 system less the full rate of new State Pension. If this amount is less than zero a person has no protected payment.
- E.80 I have identified individuals from the QSE and L2 datasets who would be affected by the new State Pension transitional arrangements and calculated protected payment amounts for all in this group.
- E.81 I projected these Protected Payments by running off these amounts using the same mortality rates used to project Additional Pensions and Graduated Retirement Benefit (see paragraphs E.56 and E.57). The projection allows for CPI up-rating and mortality before and after coming into payment. Allowance is made for inheritance of Protected Payments using ONS's 2008-based marital status projection for England and Wales.
- E.82 As the L2 data set includes contribution records for those who have paid NICs and then emigrated overseas this projection approach automatically captures Protected Payments to overseas pensioners.

## Working age benefits and other payments modelling

- E.83 In addition to State Pension, the Fund also pays a range of other benefits, mainly to those of working age. These include contribution-based Employment and Support Allowance (ESA), contribution-based Jobseeker's Allowance (JSA), Bereavement Support Payment, Maternity Allowance and Guardian's Allowance.
- E.84 The most significant of these benefits is ESA, although it is less than 5% of Fund expenditure. For years up to 2026-2027, projected ESA expenditure is based on figures provided by DWP as part of the October 2021 EFO. Thereafter, expenditure is projected to rise in line with the number of economically inactive people and CPI inflation. The projection of the economically inactive population is taken from the OBR's cohort employment projection model that I have used for setting my long-term assumptions about employment.
- E.85 The other working age benefits are much smaller than ESA and therefore I have adopted more simplified approaches for projecting them. Expenditure up to 2026-2027 has been taken from DWP's estimates for the October 2021 EFO. For subsequent years, expenditure is assumed to vary in line with CPI inflation and the number of:
- Births in the case of Maternity Allowance
  - Deaths at working ages in the case of Bereavement Support Payments
  - Unemployed in the case of contribution-based JSA
  - Children in the case of Guardian's Allowance
- E.86 Expenditure on widowed parent's allowance that was only payable for deaths before 6 April 2017 is assumed to run off to zero by 2034-2035.

- E.87 The Insolvency Service has provided a projection of gross redundancy payments which underlie recent OBR projections. Redundancy payments estimates net of redundancy receipts have been estimated by GAD as 95% of the projected gross redundancy payments, based on the patterns in recent years.
- E.88 DWP has identified certain groups of basic State Pension recipients who may have been underpaid<sup>1</sup>. The total size of the underpayments has been estimated in the EFO at £1.063bn and is expected to be repaid by the end of 2023, I have assumed that repayments outstanding at 30 September 2021 will be spread evenly over the remainder of the repayment period. Future benefit payments are also expected to increase once records are corrected. I have used details from the EFO to allow for correction of underpayments and uplifts to future benefit outgoings. These amounts are included within basic State Pension figures in this report.
- E.89 Although data used in this projection is checked for reasonableness, such issues are not always detectable (see E.1).
- E.90 The administration costs are based on those incurred in 2020-2021 as recorded in the published Fund accounts, with future costs estimated as the 2020-2021 costs increased in line with earnings growth.
- E.91 Each year transfers between the Great Britain National Insurance Fund and the Northern Ireland National Insurance Fund are made in order to keep the balance in the Northern Ireland National Insurance Fund at a certain percentage of the combined balance in the two funds (the "parity ratio"). The projection in this report allows for estimated transfers between the two Funds.
- E.92 The total payment made in 2021-2022 will be based on a parity ratio of 2.76%. This proportion is based on analysis of the populations aged 16 and over in Great Britain and Northern Ireland as provided in the mid-2020 population estimate published by ONS in summer 2021. This methodology, including the use of the latest ONS population estimates, was agreed following my review of the parity process in 2020 and remains appropriate. Payments made after 2021-2022 are assumed to be based on the same parity ratio.

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<sup>1</sup> <https://www.gov.uk/government/publications/state-pension-underpayments-progress-on-cases-reviewed-to-30-september-2021/state-pension-underpayments-progress-on-cases-reviewed-to-30-september-2021>



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