Government Actuary's Department

Judicial Pension Schemes

Valuation Results

Actuarial valuation as at 31st March 2020

Fiona Dunsire FIA and Michael Scanlon FIA

7 February 2024

Highlights

Employer Contribution Rate

62.3%*

of pensionable pay expected to be paid from 1 April 2024 to 31 March 2027

£229.5m**

in 2020 monetary terms.

Comparison to current Employer Contribution Rate

+11.2%

increase from 51.1%*

+£41.3m** in 2020 monetary terms.

JPS 2022 employer cost cap

33.1%

of pensionable pay

Under the cost control mechanism, at future valuations costs will be assess against this employer cost cap of 33.1% pay.

Comparison to NJPS 2015 employer cost cap

+7.5%

increase from 25.6%

Next steps: The Lord Chancellor should make arrangements for implementing the revised Employer Contribution Rate of 62.3%* of pensionable pay from 1 April 2024, and including the 2022 scheme Employer Cost Cap in scheme regulations.

* An administration charge of 0.25% of pensionable pay is also currently payable by employers in addition to the employer contribution rate.

** Monetary amounts are annual, based on pensionable pay at the valuation date.

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Any terms that are described in the Glossaries are underlined the first time they appear on a page within this report.

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Introduction

Who is this report for?

This report is addressed to the Lord Chancellor. It sets out the results of the actuarial valuation of the Judicial Pension Schemes (the ‘scheme’) as at 31st March 2020.

What are the outcomes of the valuation?

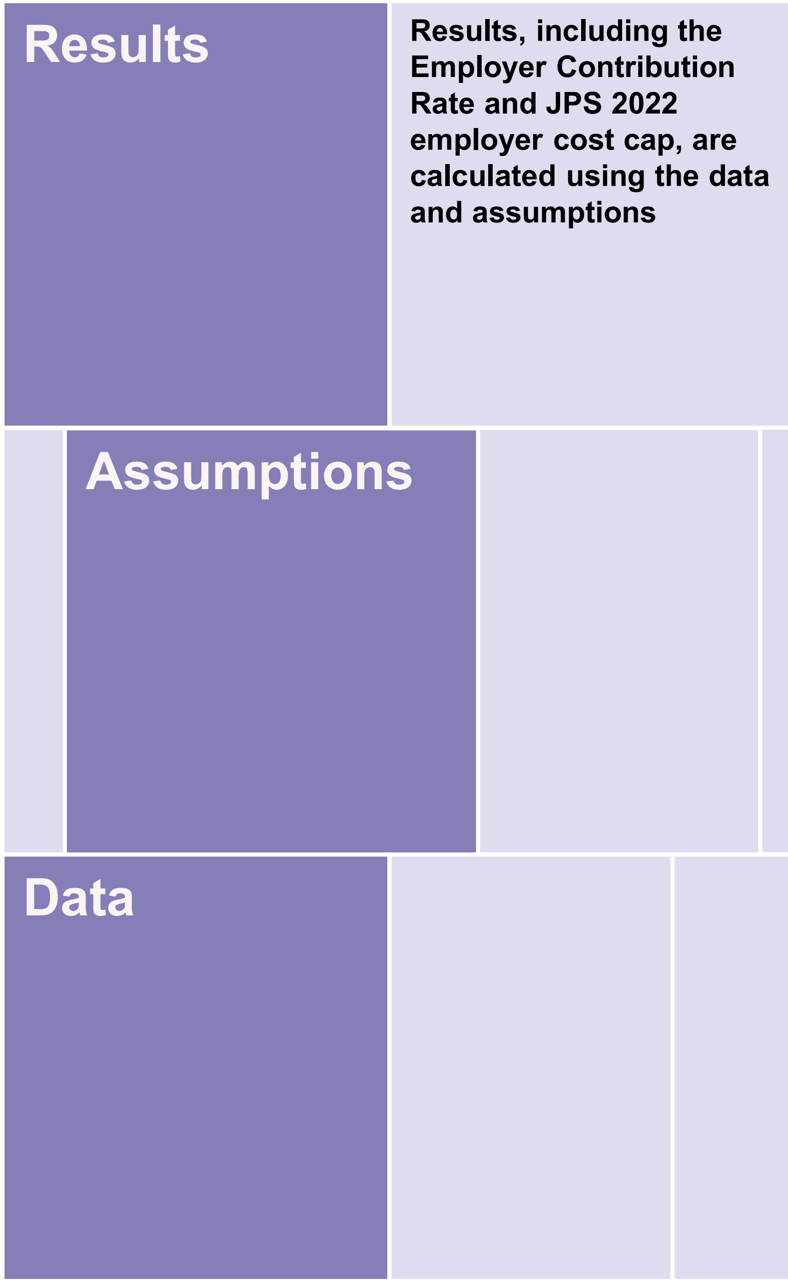
The key results of the valuation relate to the Employer Contribution Rate and the JPS 2022 employer cost cap. These show:

- **An increased Employer Contribution Rate**
- **An increase to the employer cost cap**

How have the results been prepared?

The results have been prepared in accordance with the:

- Benefits as set out in the scheme regulations.
- Methodology as described in the Public Service Pensions (Valuation and Employer Cost Cap) Directions 2023 (‘the Directions’).
- Data received from administrators of the JPS, XPS Administration, as described in our Membership data report dated 7 February 2024. This is summarised on page 13.
- Assumptions, some of which are set by the Lord Chancellor as described in our Advice on assumptions report dated 7 February 2024 (the ‘scheme-set assumptions’); and some of which are specified by the Directions (the ‘directed assumptions’). These are summarised on pages 14 and 15.



Setting the Employer Contribution Rate

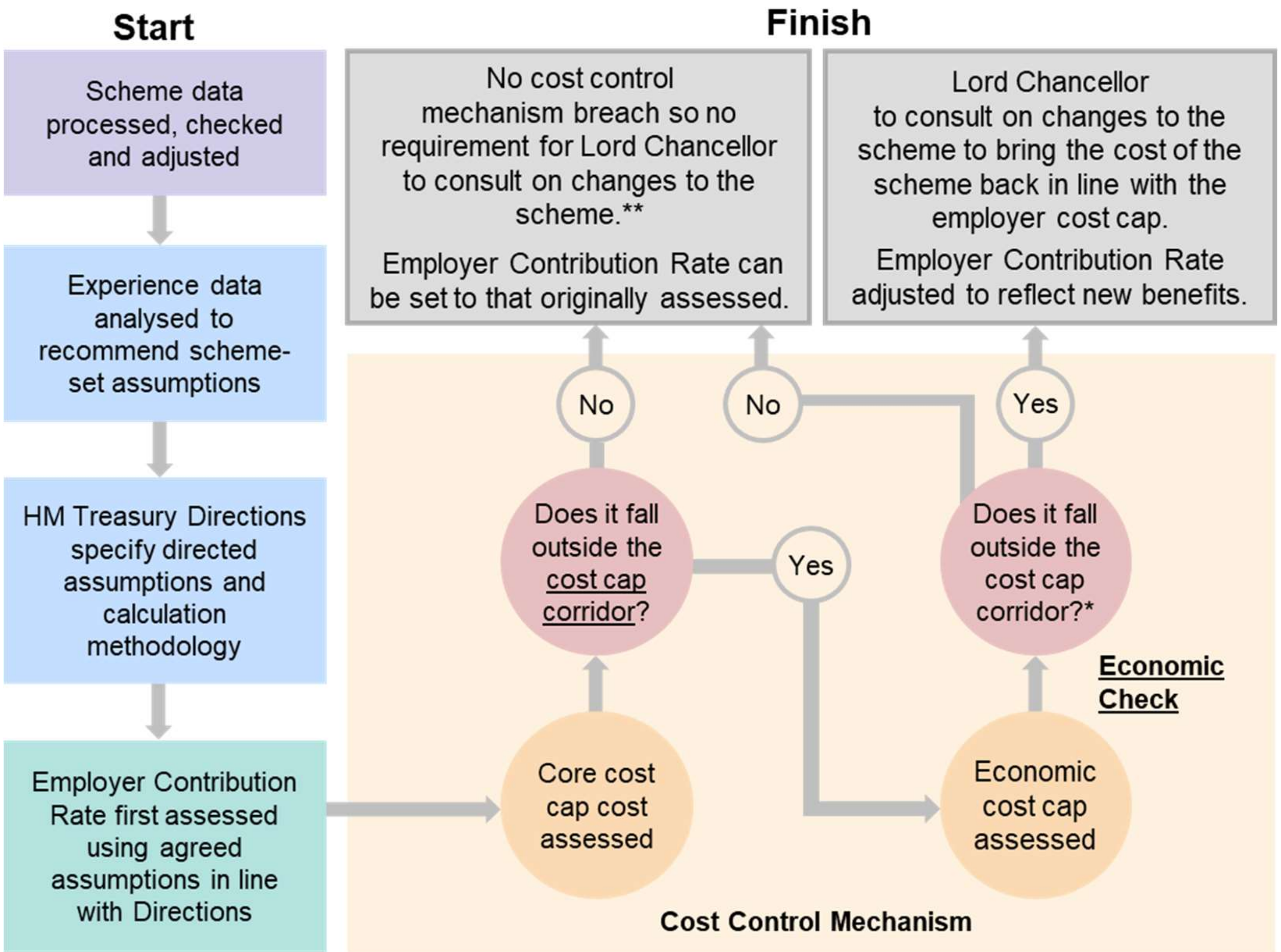
What is the process?

The diagram to the right illustrates the steps of the valuation process.

This begins with the receipt of scheme data as at 31 March 2020, followed by assumption setting and the assessment of the Employer Contribution Rate.

It then details the various steps involved in the implementation of the cost control mechanism.

As this is the first valuation for the JPS 2022 scheme, a revised employer cost cap is calculated, against which the cost of this scheme will be tested at subsequent valuations (further details are set out in Appendix A). The cost control mechanism is not tested at this valuation. The part of the process map relating to the “Cost Control Mechanism” (in yellow) therefore does not apply to this 2020 valuation, but will apply to future valuations.



* A breach of the cost control mechanism occurs only if both the core and economic cost caps lie outside the cost cap corridor and in the same direction.

Key Results

Employer Contribution Rate

What are the key results

The Employer Contribution Rate result is summarised below. As the cost control mechanism is not tested at this valuation (see page 10), there is no requirement for the Lord Chancellor to consult on changes to the scheme. As a result, there will not be any adjustment to the rate in respect of the cost control mechanism.

62.3%

of pensionable pay expected to be paid from 1 April 2024 to 31 March 2027

£229.5m*

in 2020 monetary terms

Comparison to current Employer Contribution Rate

+11.2%

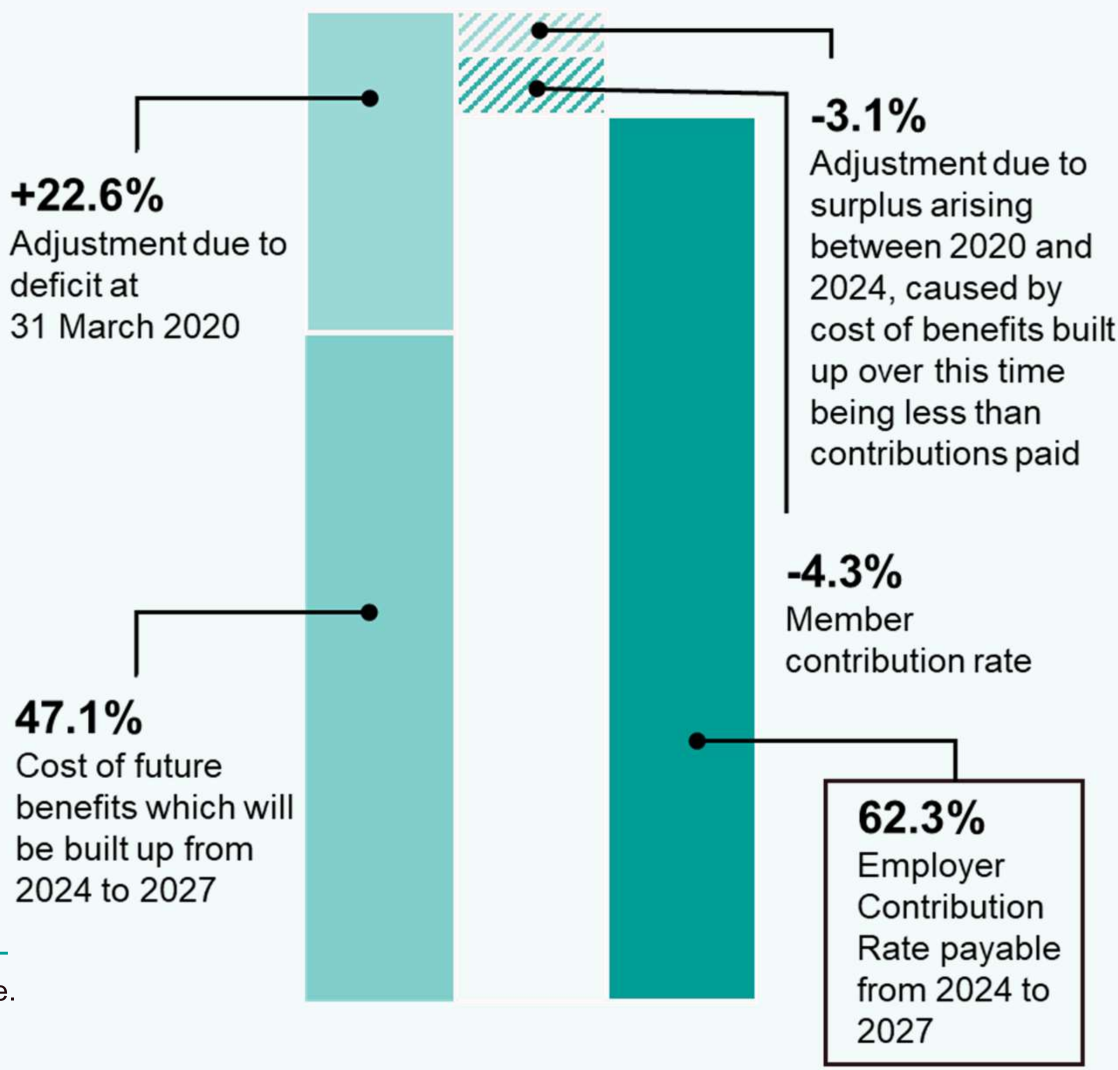
increase from 51.1%

+£41.3m* in 2020 monetary terms

* Monetary amounts are annual, based on pensionable pay at the valuation date.

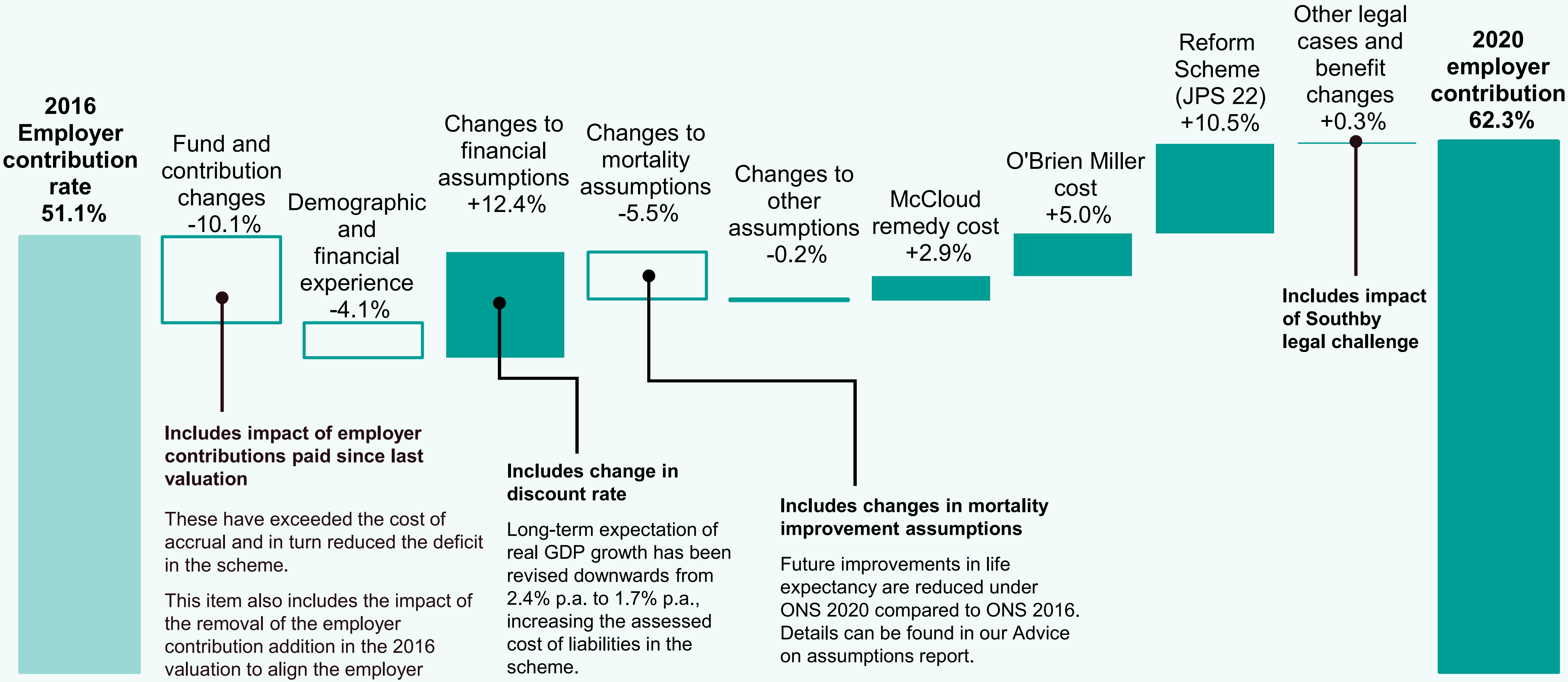
All percentages shown are of pensionable pay per annum.

Breakdown of contribution rate



Changes since 2016

The chart below shows the main factors contributing to the change in the Employer Contribution Rate since the last valuation in 2016.



Includes impact of employer contributions paid since last valuation

These have exceeded the cost of accrual and in turn reduced the deficit in the scheme.

This item also includes the impact of the removal of the employer contribution addition in the 2016 valuation to align the employer contribution correction cost to the target cost of the scheme. This adjustment is no longer needed following the 2020 valuation.

Includes change in discount rate

Long-term expectation of real GDP growth has been revised downwards from 2.4% p.a. to 1.7% p.a., increasing the assessed cost of liabilities in the scheme.

In isolation, this SCAPE rate change would increase the employer contribution rate by 12.8%.

Includes changes in mortality improvement assumptions

Future improvements in life expectancy are reduced under ONS 2020 compared to ONS 2016. Details can be found in our Advice on assumptions report.

Although the 2020 employer contribution rate would be unaffected, the individual figures in this breakdown depend on various factors, such as the order of the calculations. The precise amount attributable to the discount rate change therefore depends on the method.

All percentages shown are of pensionable pay per annum and are approximate.

JPS 2022 employer cost cap

Calculating the employer cost cap

The employer cost caps of JPS 2022 and NJPS 2015 are calculated as follows:

Benefit design	JPS 2022	NJPS 2015
Data	As at 2020	As at 2012
Assumptions	2012 valuation	2012 valuation
Employer Cost Cap	33.1%	25.6%

Full details of the 2012 valuation assumptions are set out in our report:
[The Judicial Pension Scheme: Actuarial valuation as at 31 March 2012 - Advice on Assumptions]

Use of the 2012 valuation assumptions

The use of the 2012 valuation assumptions is intended to ensure the cost control mechanism will operate for JPS 2022 in a largely consistent manner with other schemes. In practice, this means:

- Any cost pressures emerging at future valuations will be relative to the 2012 valuation assumptions.
- In particular, at future valuations the economic check will be relative to the economic outlook assumed in the 2012 valuations: GDP growth of 3.0% pa above CPI inflation.

Future valuations

The cost control mechanism for JPS 2022 will first be tested at the 2024 valuation.

Compared with the 2012 assumptions:

- Life expectancies are now lower, leading to lower costs in the core mechanism
- The outlook for GDP growth is also lower, leading to higher costs in the economic check.

Currently as the change in the assessment of scheme costs and the consideration of economic check are in opposite directions. Therefore, in order for the mechanism to trigger any changes to scheme benefits in the future, large movements in assumptions would need to occur.

JPS 2022: Cost Control Mechanism

Judicial pension scheme 2022

On 1 April 2022, all active judges transitioned into the Judicial Pension Scheme 2022 (JPS 2022), which replaced the New Judicial Pension Scheme 2015 (NJPS 2015). A comparison of the benefits of the two schemes is shown in the table below.

Benefit design	JPS 2022	NJPS 2015
Benefit design	CARE	
Tax status	Not registered	Registered
Accrual rate	2.5%	2.32%
Pension age	State Pension age	
Commutation	12:1, plus commutation tax supplement	12:1
Member contributions	4.26% pay	7.1% pay (average)

* In this report, we use the term "employer cost cap" to refer to both:

- The proposed employer cost cap, as set out in this report
- The employer cost cap, which will be set in the JPS 2022 scheme regulations and must be equal to the proposed employer cost cap

Cost Control Mechanism

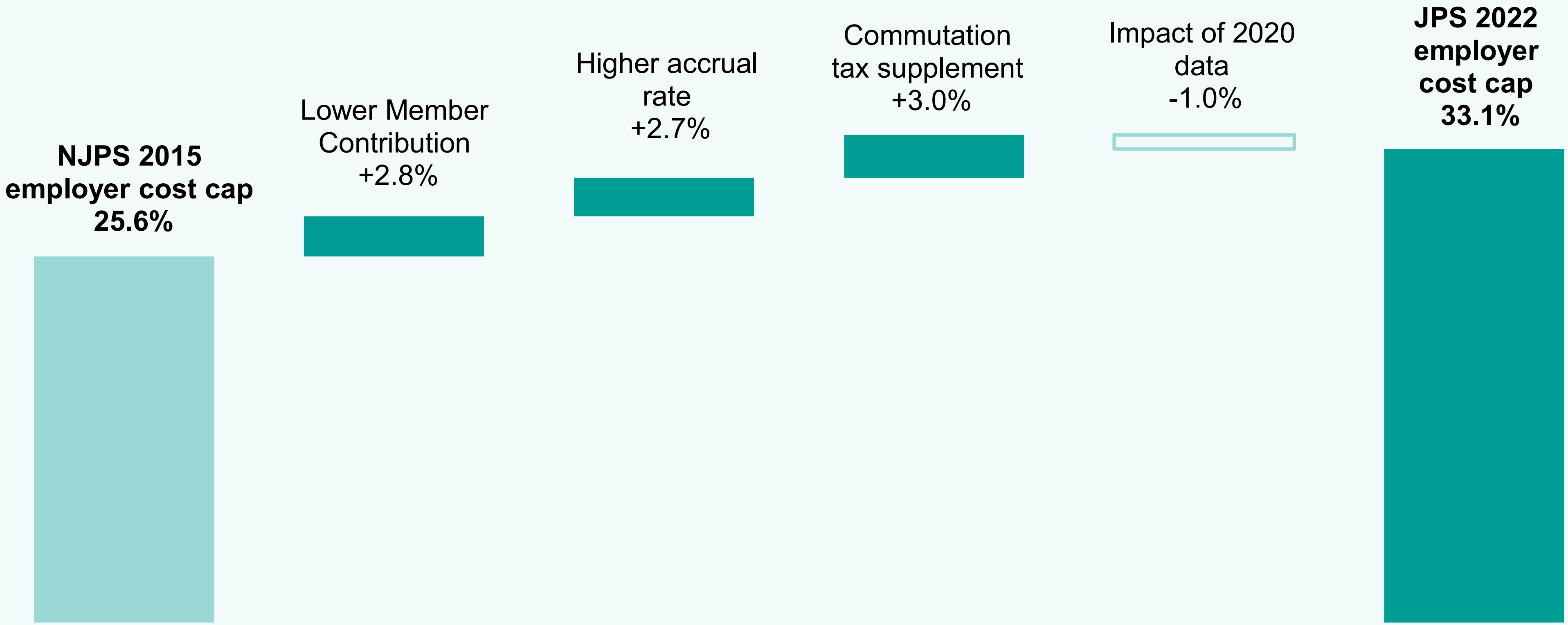
In accordance with the Directions, this valuation sets out the proposed employer cost cap for JPS 2022. The Directions require that the employer cost cap set in the JPS 2022 scheme regulations must be equal to this proposed employer cost cap*.

The cost control mechanism for JPS 2022 will first be tested at the 2024 valuation. In 2024, and at future valuations, costs will be assessed against the JPS 2022 employer cost cap set in this valuation.

Full details of how the cost control mechanism will operate in relation to the JPS 2022 can be found in MoJ's policy paper:
Judicial Pension Scheme 2022 and the Cost Control Mechanism

Changes compared with 2015 scheme

The chart below shows the main factors contributing to the difference between the JPS 2022 employer cost cap and the NJPS 2015 employer cost cap.



Sensitivities for the NJPS 2015 employer cost cap are set out in the JPS 2012 actuarial valuation report. These would be expected to be proportionally similar for the JPS 2022 employer cost cap save for the commutation assumption sensitivity.

All percentages shown are of pensionable pay per annum.

Data & Assumptions

Scheme data as at 31 March 2020

The results in this report have been based on the data described in our Membership data report dated 7 February 2024 and summarised below. Appendix F describes the checks, adjustments and reconciliations carried out in preparing this data as well as the approximate impact of any data uncertainty which may still exist.

Summary statistics

11.6k
Scheme members
+20.1% vs. 2016

65 : 35
Male : Female
vs. 68 : 32 in 2016

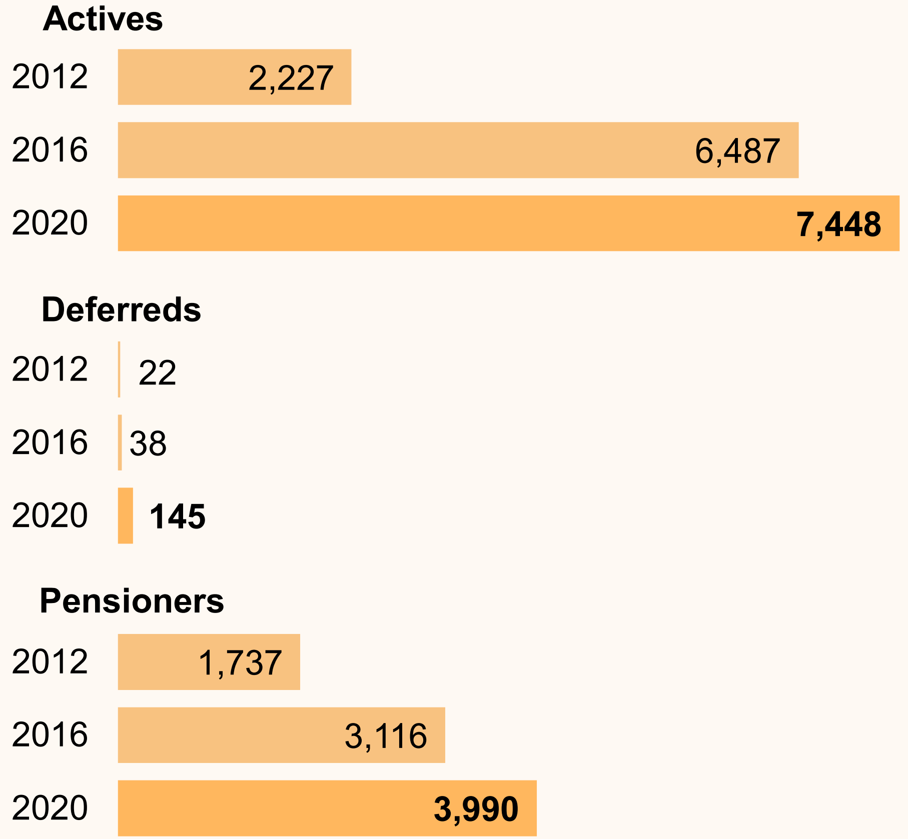
£370.1m
Total actual pay
+11.7% vs. 2016

£0.9m
Deferred pension
+31.2% vs. 2016

£143.8m
Total pension
+27.3% vs. 2016

Pension amounts include the April 2020 pension increase.

Membership over time



Scheme-set assumptions

The results in this report have been based on assumptions, some of which are ‘scheme-set’ as described in our Advice on assumptions report dated 18 September 2023 and some of which are ‘directed’, as summarised on page 15.

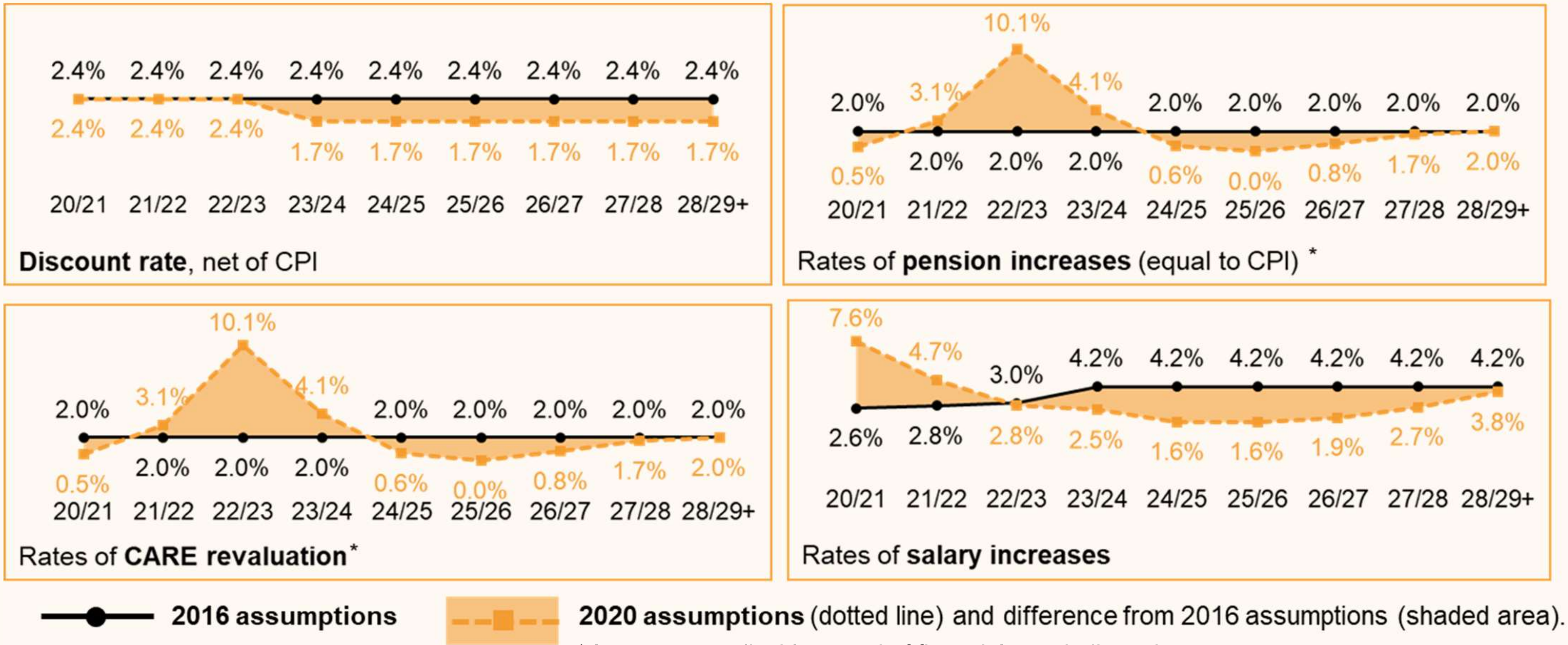
The table below provides a summary of the changes in scheme-set assumptions since the last valuation in 2016. It also sets out the directional impact of the changes on the results. Cabinet Office and the Scheme Advisory Board to the scheme have agreed that the scheme-set assumptions are reasonable and appropriately reflect scheme experience where available.

Assumption	Change in assumption adopted	Impact of change on scheme costs
Mortality after retirement	Move to S3 tables and inclusion of 2016-2020 experience.	Lower costs
Proportion commuted	Increase in amount of pension exchanged for cash.	Offsetting*
Retirement ages	No change.	No impact
Rates of leaving service	No change.	No impact
Promotional pay increases	No change.	No impact
Rates of ill-health retirement	No change.	No impact
Mortality before retirement	No change.	No impact
Family statistics	No change.	No impact

*Higher assumed commutation rates act to reduce the value of accrued JPS 2015 liabilities whilst increasing the cost of future accrual within JPS 2022 due to an additional commutation supplement payable (to compensate members’ for the tax treatment of lump sums in an unregistered pension scheme). These are broadly offsetting.

HM Treasury Directed Assumptions

Annual financial assumptions



* Increases applicable at end of financial year indicated.

Other directed assumptions

	2016 assumption	2020 assumption
Deficit spreading periods	15 years	
Future mortality improvements	In line with 2016-based ONS projections	In line with 2020-based ONS projections
State Pension age	As legislated for in the Pensions Act 1995, Pensions Act 2007, Pensions Act 2011 and Pensions Act 2014	

Sensitivities & Potential future impacts

Sensitivities – Employer Contribution Rate

Which assumptions are the Employer Contribution Rate most sensitive to?

The chart to the right shows the sensitivity of the Employer Contribution Rate to specified changes in a number of key directed and scheme-set assumptions.

The chart shows that:

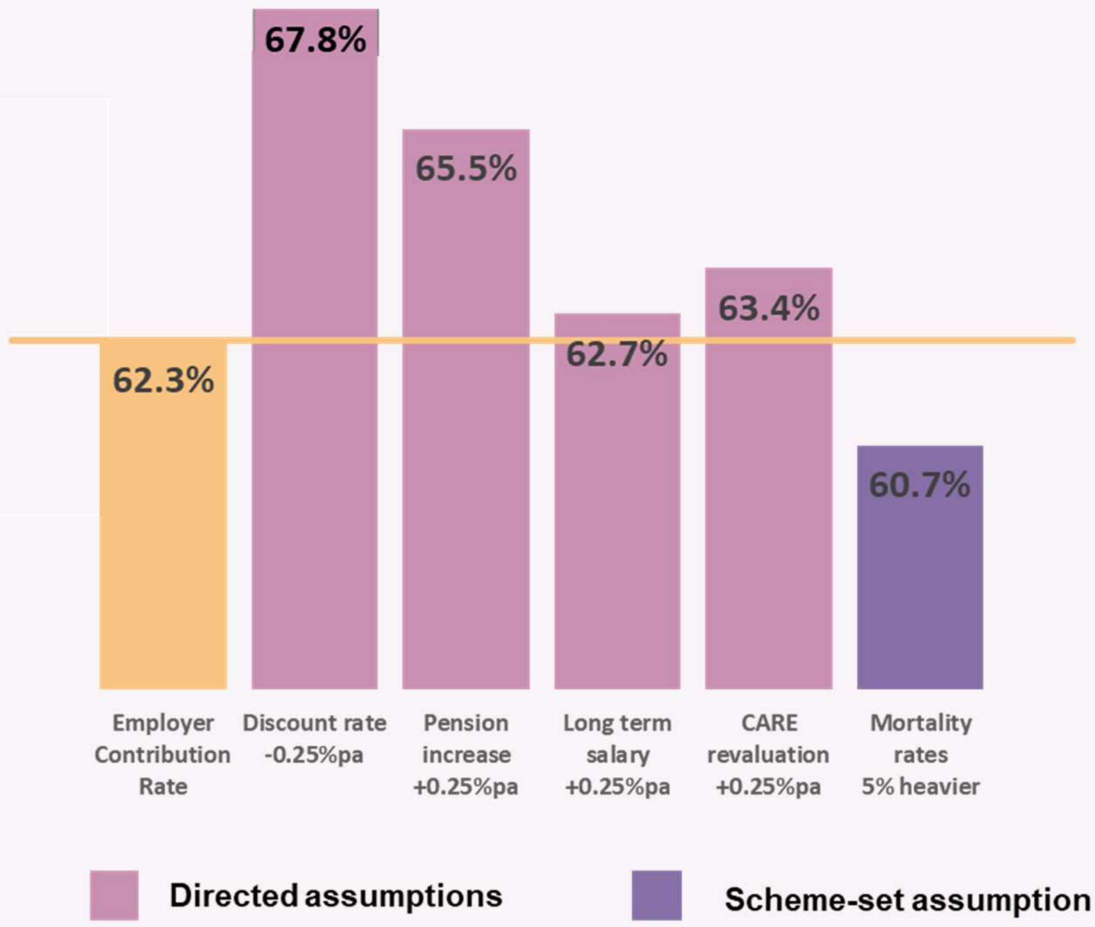
- some assumptions are more significant than others.
- the more significant assumptions tend to be directed.

It should be noted that:

- The sensitivities have been calculated in isolation for each assumption, leaving all others unchanged.
- Sensitivities are not a prediction of future changes and are not minimum or maximum possible impacts.
- Changes to the assumptions in the opposite direction to illustrated here will produce approximately equal and opposite changes in the valuation results.

Full details of the sensitivities can be found in Appendix A.

Employer Contribution Rate sensitivity



All percentages shown are of pensionable pay per annum.

Factors affecting future valuations

The previous two pages illustrate the impact on the **current** valuation results of changes to a number of key assumptions. It is useful to also consider which factors will potentially impact **future** valuation results. These are summarised in the following table:

Factor	Potential impact
Deficit repayment	The employer contribution rate includes an amount to reduce the size of the deficit. All else being equal the deficit contribution rate will be lower at the next valuation as a portion of the existing deficit will have been paid off.
Mortality improvements	Recent evidence is that the UK is continuing to experience more deaths than expected based on pre-pandemic levels. The ONS 2020 projections made an adjustment to mortality rates to allow for expert views on the impact of the Covid-19 pandemic on mortality rates up to 2024. It is not yet possible to tell whether the projections used for the 2024 valuations will show further reductions in life expectancy but recent evidence points to that being the trend. This would reduce the costs of the scheme.
Scheme demographic experience	Actual demographic experience will differ from assumptions and this could have a large impact on results, both directly and in the way it influences scheme set assumptions at future valuations. The most significant such assumptions are base mortality, withdrawals from the scheme, and commutation. Appendix A shows the impact on the results of changes in these assumptions.
Directed assumptions	These have the potential to have the largest impact on the contribution rate but the direction and magnitude of any such change is unknown.

Factors affecting future valuations

Factor	Potential impact
Age profile	Any change in the age profile of the scheme, e.g. a recruitment freeze meaning that fewer younger members join, will impact the results, with a higher average age generally leading to an increase in the contribution rate.
Legal cases	Any further cases that extend scheme benefits could have a large upward impact on costs. Legal cases we are aware of at the date of this report are summarised in Appendix E.
Legislative and policy changes	Any legislative or policy changes could impact on the benefits provided under the schemes, with the impact dependant on the change that is implemented.
O'Brien 2 & Miller	Data in relation to these cases has improved rapidly in recent years, however, it is still developing. For this valuation we have data covering around 83% of cases so significant uncertainty remains with regards to estimating the total number of cases and the total liabilities.
Membership data	The valuation results are heavily dependant on the accuracy of the membership data. If the data is later shown to be materially incorrect or inconsistent with future datasets then a further cost or saving will emerge.
Membership profile	As time goes on fewer members will have legacy scheme accrual and this is expected to lead to differences in behaviour around retirement patterns.

As well as affecting future valuation results, the factors above may impact future benefits paid, and contributions received, by the scheme.

At present, benefits paid from the scheme exceed contributions received from employees and employers. HM Treasury meet the remainder of the cost. However, any balancing payments with HM Treasury will change over time depending on the above factors - in particular the scheme's membership profile and the relative numbers of members accruing and receiving benefits.

Appendices

Appendix A:
Additional Valuation Results

Employer Contribution Rate components

Key components

The chart on this page shows the components of the initially assessed Employer Contribution Rate payable from 2024 to 2027. These are the:

a. Cost of benefits accruing in JPS 2022 over the period 2024 to 2027 which represents the bulk of the rate. This is calculated to be 47.1% of pensionable pay per annum and is arrived at by using the methodology set out on page 52.

b. Adjustment due to deficit at 31 March 2020
This incudes the impact of McCloud and O'Brien Miller (see pages 23 to 25).

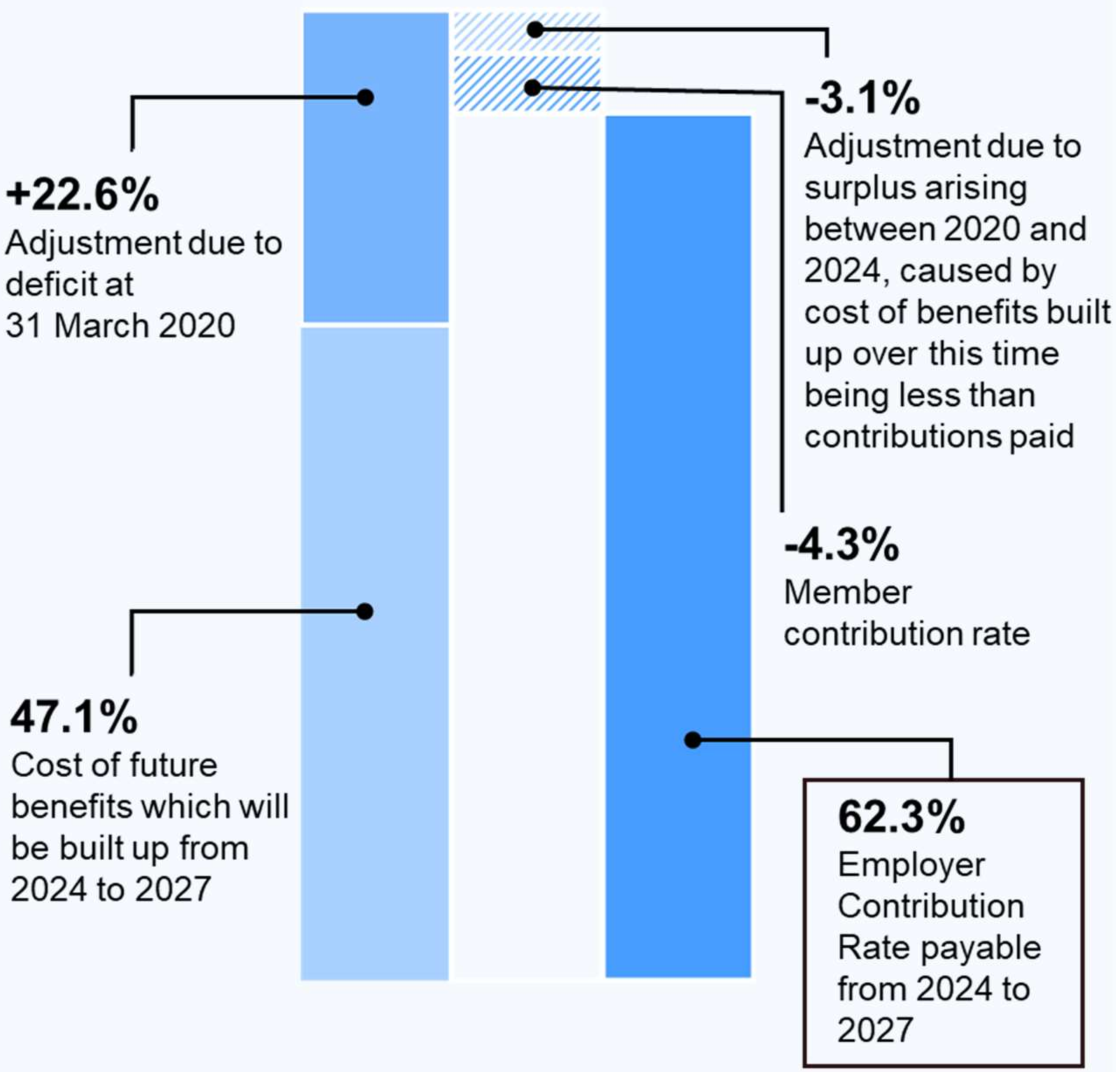
c. Adjustment due to surplus arising between 2020 and 2024 (see page 26).

d. Member contribution rate: 4.26% pay.

The initially assessed Employer Contribution Rate of 62.3% is calculated as a + b - c - d.

The following four pages provide further information relating to the derivation of item b. Detailed information relating to the methodology employed is set out in Appendix D.

Breakdown of contribution rate



b. Adjustment due to deficit at 31 March 2020

Adjusting for deficit

The Employer Contribution Rate is adjusted to allow for the deficit in the scheme as at 31 March 2020. This deficit is spread over a period of 15 years from 1 April 2024 and is identified on page 23 as item b, ‘adjustment due to deficit’, of +22.6%.

To assess scheme deficit we subtract the value of past service liabilities from notional assets. The calculation of each of these items is summarised on this page.

Past Service Liabilities

The value of the scheme’s past service liabilities is the capital sum needed at the effective date to meet the stream of future cashflows in respect of benefits earned. The split of these liabilities between active, deferred and pensioner members is set out below:

Liabilities (£bn)	31 March 2016	31 March 2020
Actives	1.5	2.0
Deferreds	0.0	0.0
Pensioners	1.5	1.9
Total	**3.0**	**3.9**

Income and benefit payments have been derived from scheme accounts and the notional investment returns are calculated by compounding interest using the prevailing SCAPE discount rate and relevant changes in the Consumer Price Index.

Notional assets

Notional assets (see page 55) are calculated by ‘rolling up’ their value at the last valuation in line with notional investment returns and adjusting for income and outgo over the period. This is summarised in the table below, followed by a breakdown over the intermediate years:

	£bn
Notional assets at 31 March 2016	**2.3**
+ Income Received (including transfer from Northern Ireland – see page 62)	0.7
- Benefits Paid	-0.6
+ Notional Investment Returns	0.5
Notional assets at 31 March 2020	**2.8**

		2016-17	2017-18	2018-19	2019-20	Total
Income Received (£bn)		0.1	0.2	0.2	0.2	0.7
Benefits Paid (£bn)		0.1	0.1	0.2	0.2	0.6
Notional Investment Returns	(£bn)	0.1	0.1	0.1	0.1	0.5
	%	3.8%	5.9%	5.3%	4.1%	

Scheme Deficit

	31 March 2016	31 March 2020
Liabilities (£bn)	3.0	3.9
Notional assets (£bn)	2.3	2.8
(Deficit)	**(0.7)**	**(1.1)**

All percentages shown are to the nearest 0.1% and all figures are rounded to 1 decimal place.

b. Adjustment due to deficit at 31 March 2020

Contributory factors

The factors contributing to the change in deficit in the scheme since the last valuation (from £0.7bn to £1.1bn) are quantified in the table to the right.

Impacts are considered in the order listed and although a different order could change the intermediate figures, there would be no impact on the deficit.

	£bn	
Surplus (deficit) at 31 March 2016 **Notional Assets minus Liabilities (£2.3bn minus £3.0bn)**	**(0.7)**	i
Interest on surplus (deficit)	(0.1)	
Excess of contributions paid against cost of benefits accruing 2016-2020	(0.0)	ii
Repayment of deficit	0.1	iii
Experience effects (including O'Brien 2 Miller liabilities)	(0.4)	iv
Change in financial assumptions	(0.3)	v
Change in demographic assumptions	0.2	vi
Unattributed	0.1	vii
Surplus (deficit) at 31 March 2020: **Notional Assets minus Liabilities (£2.8bn minus £3.9bn)**	**(1.1)**	

All figures are rounded to 1 decimal place.

i. The Notional Assets are described on pages 23 and 55; 'Liabilities' represent Past Service Liabilities.

ii. Assessed using financial assumptions at the 2016 valuation. Includes allowance for payment of the corrected Employer Contribution Rate since 1 April 2019.

iii. As anticipated at the 2016 valuation, representing 3.1% of pay expected to be paid towards the deficit in the year preceding 2020.

iv. The impact of scheme experience over the period 2016-2020 diverging from that which was expected at the 2016 valuation. This includes additional liabilities that have materialised due to the O'Brien 2 & Miller Judgments and the McCloud Judgment for service to 31 March 2020.

v. Pages 14 and 15 summarise the financial assumptions at the current and previous valuations. The change with the greatest financial significance is the discount rate fall from CPI+2.4% p.a. to CPI+1.7% p.a..

vi. This is the net result of a number of demographic changes, mainly driven by the change in mortality assumption.

vii. Balancing item.

b. O'Brien 2 & Miller Judgments

What are the O'Brien 2 & Miller Judgments?

The 2016 valuation included allowance for the O'Brien Judgment, which awarded pension rights to fee paid judges who were active in December 2012 (or who had previously made an in-time claim) for service from 7 April 2000. Since then there have been extensions as follows:

- O'Brien 2: Extensions to service before 7 April 2000
- Miller: Extensions to those who left fee paid service before Dec 2012 (including in particular fee paid judges who were appointed as salaried judges)

HM Treasury Directions require that all relevant liabilities are included within the valuation. O'Brien 2 and Miller liabilities are considered to be relevant.

The Employer Contribution Rate is adjusted to allow for the estimated liability by spreading it over a period of 15 years from 1 April 2024.

The allowance for O'Brien 2 and Miller liabilities increases the liabilities by about £240m and increases the Employer Contribution Rate by about 5.0% pay.

Data used in calculating the liability

The process of providing a remedy to Judges impacted by the O'Brien 2 and Miller Judgments is ongoing. The table below summarises the availability of members data available to estimate the additional scheme liabilities for these Judgments.

Legal Case	Number of members	Data provided *
Miller	2,871	86%
O'Brien 2	1,958	78%

Full details of the data used and any scaling adjustments made to estimate the increase in scheme liabilities are summarised in Appendix E of the Membership data report.

*__Data provided__ shows the proportion of the membership for which detailed individual member has been provided. The data for these members has been scaled up to reflect the total number of members provided by MoJ.

c. Adjustment due to surplus arising between 2020 and 2024

Why does this surplus arise

The Employer Contribution Rate calculated as part of the 2020 actuarial valuation comes into payment at the start of the implementation period on 1 April 2024.

However over the prior period, 1 April 2020 to 31 March 2024, the current Employer Contribution Rate of 51.1% remains payable.

It is expected that the cost of benefits accrued during the 2020 to 2024 period will be different from the currently payable contribution rate and as such a surplus (or deficit) will arise.

The extent of this surplus is quantified in the table to the right.

Spreading of surplus

The Employer Contribution Rate is adjusted to allow for this surplus by spreading it over a period of 15 years from 1 April 2024.

This is identified on page 22 as item c 'adjustment due to surplus arising between 2020 and 2024'.

Level of surplus

2020-2024	% p.a.
Employer Contribution Rate actually paid	51.1%
+ Member contribution rate actually paid	5.1%
- Cost of benefits accruing	-45.4%
Net contribution surplus p.a. 2020 - 2024	**10.8%**

Adjustment to contribution rate

Spreading the net contribution surplus described above over a period of 15 years results in a reduction to the Employer Contribution Rate of 3.1% of pensionable pay.

All percentages shown are of pensionable pay per annum.

Note that the employer contribution rate is higher than the cost of benefits accruing over the 2020-2024 period. This is because the employer contribution rate actually paid includes both the cost of benefits accruing over the 2016-2020 period *and* an addition for deficit as at 31 March 2016.

Cost Control

What are the aims of the cost control mechanism?

The cost control mechanism was introduced following the recommendations of the Independent Public Pension Commission in 2011. Its aims were to:

- Ensure a fair balance of risk between members of public service pension schemes and taxpayers with regard to the costs of these schemes.
- Maintain the value of such schemes to their members.
- Provide stability and certainty of member benefit and contribution levels, with changes only being triggered by 'extraordinary, unpredictable' events.

How does the mechanism work?

In the first instance, a measure of the cost of providing reformed scheme benefits, known as the core cost cap cost of the scheme, is assessed. If this cost changes by more than 3% of pensionable pay compared to its original level (known as the employer cost cap), a 'breach of the cost cap corridor' is said to have occurred.

An 'economic check', using what is known as the economic cost cap cost, is then carried out. This is a new introduction at this valuation and assesses whether a breach would also have occurred if the impact of long-term economic assumptions had also been considered.

If both the core cost cap and economic cost cap costs result in a breach in the same direction, a cost control mechanism breach is deemed to have occurred. In that case the Lord Chancellor is required to consult on changes to the scheme to bring the cost of the scheme back to the employer cost cap. Any such changes would impact the Employer Contribution Rate.

Full details of the cost control mechanism and examples of the interaction between the core and economic cost cap costs can be found in HM Treasury's document: Public Service Pensions: cost control mechanism consultation

Terminology relating to the cost control mechanism is defined in Appendix H, Glossary 2.

Results for the 2020 valuation

Pages 30, 32 and 33 cover the core cost cap cost of the scheme. This has been assessed to be more than 3% below the employer cost cap.

Pages 31, 34 and 35 cover the economic cost cap cost of the scheme. This has been assessed to be more than 3% above the employer cost cap.

As this is the first valuation for the JPS 2022 scheme the cost control mechanism will not be tested. Instead, a revised employer cost cap for the JPS 2022 scheme will be proposed, against which the cost of this scheme will be tested at subsequent valuations. There is therefore no requirement for the Lord Chancellor to consult on changes to the scheme.

Testing the cost control mechanism

What are the key results

As this is the first valuation for the JPS 2022 scheme the cost control mechanism will not be tested. However, the results of the assessments of the core and economic cost cap costs of the scheme are summarised on this page, for information. If, at a subsequent valuation, both measures breach the cost cap corridor in the same direction, then this would result in a requirement for the Lord Chancellor to consult on rectifying the breach through changes to benefits or member contribution rates. Any such changes would impact on the Employer Contribution Rate.

Core cost cap cost	Economic cost cap cost
29.5%	**40.8%**
of pensionable pay which is	of pensionable pay which is
3.6% below	7.7% above

the 33.1% employer cost cap

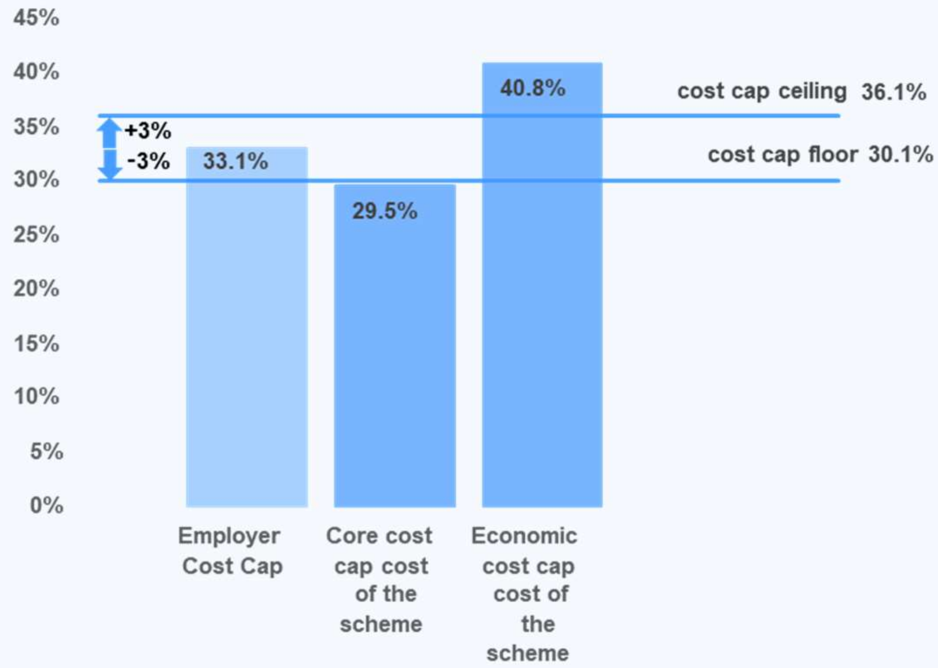
As there is no test of the cost control mechanism at this valuation, there is no requirement for the Lord Chancellor to consult on changes to the scheme.

All percentages shown are of pensionable pay per annum.
See Glossaries for cost control definitions and explanations.

Position within cost cap corridor

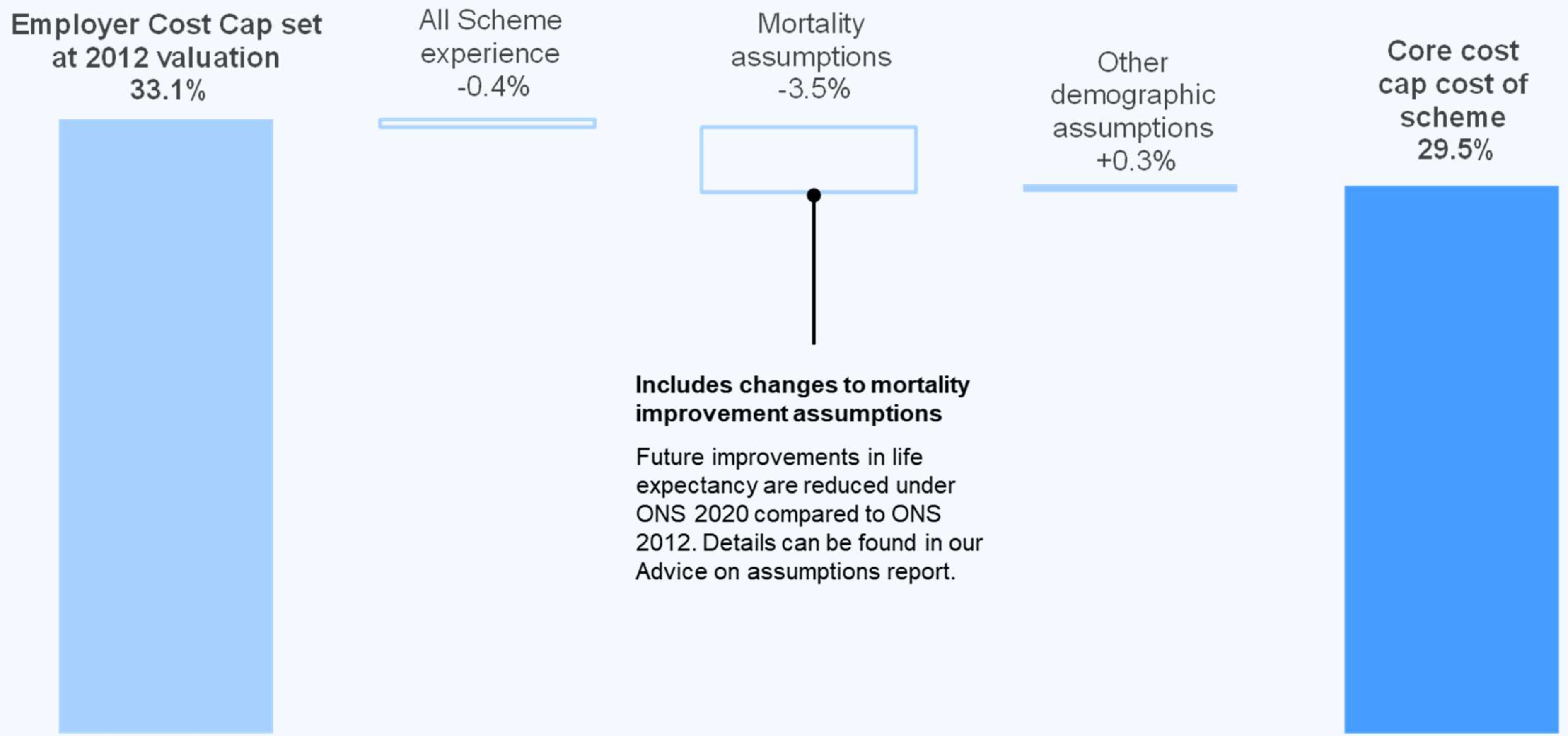
The chart below shows the position of the core cost cap cost of the JPS 2022 scheme and the economic cost cap cost of the scheme against the cost cap corridor. Whilst there is no test at this valuation we have shown the position of the JPS 2022 against the revised cost cap cost for information.

The core cost cap cost of the scheme falls below the cost cap floor, however, when the wider economic situation is taken into account through the economic cost cap cost of the scheme the economic cost cap cost of the scheme does not fall below the cost cap floor.



Changes since 2012

The chart below shows the main factors contributing to the difference between the core cost cap cost of the JPS 2022 scheme, and the JPS 2022 employer cost cap. This has been reset at this 2020 valuation to allow for the implementation of the new JPS 2022 scheme but using the valuation assumptions as at 2012 that determined the original Employer cost cap rate.



All percentages shown are of pensionable pay per annum.

Core cost cap cost of the scheme

What is the assessment process?

As explained on page 28, as this is the first valuation for the JPS 2022 scheme the cost control mechanism will not be tested. However, for subsequent valuations the cost control mechanism will begin with the assessment of the core cost cap cost of the scheme against the employer cost cap. On subsequent slides we have shown the position of the scheme with regards to the cost control mechanism as at 31 March 2020 for illustrative purposes. We will need to determine whether the former lies within a ±3% corridor of the latter. Based on the outcome of this, action may need to be taken to bring costs back to the target cost.

The core cost cap cost of the scheme is a calculated measure of the cost of benefits being provided from the reformed scheme. This excludes the impact of changing long-term economic assumptions.
The employer cost cap is the previously determined 'target cost' of the scheme and is set to 33.1%.

Core cost cap cost of the scheme components

The component parts of the core cost cap cost of the scheme are :

a: Cost cap future service cost – contribution rate required to cover the expected cost of benefits accrued by members during the cost cap implementation period.

b: Core cost cap past service cost – difference between the cost cap liabilities and core cost cap fund as at the effective date, as a percentage of pensionable pay. More details can be found on page 32.

c: Cost cap contribution yield – the contributions expected from members during the cost cap implementation period.

d: Cumulative future service technical immunity adjustment – the future technical immunity adjustment at this valuation (5.9%) plus the cumulative future service technical immunity adjustment from the reconstructed 31 March 2016 cost cap valuation of the scheme (4.6%).

Core cost cap cost calculation

We have shown for illustrative purposes below what the cost cap check would have been for this valuation had one been required.

	% p.a.	
Cost cap future service cost	**44.6%**	a
+ Core cost cap past service cost	-0.3%	b
- Cost cap contribution yield	-4.3%	c
- Cumulative future service technical immunity adjustment	-10.5%	d
Core cost cap cost of the scheme	**29.5%**	a+b-c-d

Comparison with employer cost cap

	% p.a.
Core cost cap cost of the scheme	**29.5%**
- Employer cost cap	-33.1%
Difference	**-3.6%**

Which lies outside the +/-3% corridor, therefore the economic check would have been required.

All percentages shown are of pensionable pay per annum to the nearest 0.1%.

Economic cost cap cost of the scheme

What is the assessment process?

As explained on page 29, as this is the first valuation for the JPS 2022 scheme the cost control mechanism will not be tested. However, for subsequent valuations if the core cost cap cost of the scheme breaches the cost cap corridor, an economic check is required. In the case of the scheme **a breach would have occurred.**

The economic check assesses the economic cost cap cost of the scheme against the employer cost cap. It determines whether the former lies within a ±3% corridor of the latter. If this comparison has the same outcome as the core cost cap cost assessment, action is needed to bring costs back to target. The economic cost cap cost of the scheme is another measure of the cost of benefits provided from the reformed scheme. It is similar to the core cost cap cost but allows for the impact of a change in long-term economic assumptions - the difference is known as the total cumulative technical immunity adjustment.

As set out on the previous page, the employer cost cap is set to 33.1%.

How is it calculated?

A summary of the calculations that form the assessment of the economic cost cap cost is set out in the tables to the right. Its component parts are:

a: Cost cap future service cost – the contribution rate required to cover the expected cost of benefits accrued during the cost cap implementation period.

b: Economic cost cap past service cost – the difference between the cost cap liabilities and economic cost cap fund, as a percentage of pensionable pay at the effective date. More details can be found on page 35.

c: Cost cap contribution yield – the contributions expected from members during the cost cap implementation period.

Economic cost cap cost calculation

We have shown for illustrative purposes below what the economic check would have been for this valuation had one been required.

	% p.a.	
Cost cap future service cost	**44.6%**	a
+ Economic cap past service cost	0.5%	b
- Cost cap contribution yield	-4.3%	c
Economic cost cap cost	**40.8%**	a+b-c
- Employer cost cap	-33.1%	
Difference	**7.7%**	

The economic cost cap cost of the scheme lies above the 3% corridor. As this is not the same outcome as for the core cost cap cost of the scheme there would have been no requirement for the Lord Chancellor to consult on changes to the scheme.

Comparison with core cost cap cost

	% p.a.
Core cost cap cost of the scheme	29.5%
Economic cost cap cost of the scheme	40.8%
Difference (Total cumulative technical immunity adjustment)	**11.3%**

All percentages shown are of pensionable pay per annum to the nearest 0.1%.

Core cost cap fund

Core cost cap fund 2015/16 development

	£m	
Core cost cap fund at 31 March 2015	**0.0**	a
+ Core cost cap income	21.6	b
- Cost cap benefits paid	-0.1	c
+ Core cost cap notional investment returns	0.3	d
Reconstructed core cost cap fund at 31 March 2016	**21.8**	a + b – c + d

It should be noted that items b, c, and d in the table above and the core cost cap fund contribution rate have been estimated and are shown for illustrative purposes only, in accordance with Directions requirements. They do not have any impact on the outcome of the cost control mechanism.

Core cost cap fund contribution rate

The core cost cap fund contribution rate is the contribution rate required from the employer to cover the cost of benefits accruing to members over the period 1 April 2016 to 31 March 2020, with an adjustment to reflect any surplus or deficit at 31 March 2016.

It is used to calculate the employer contribution component of the core cost cap income (see page 33, item b) and its component parts are set out below:

	% p.a.	
Expected cost of benefits accrued 2016 to 2020	32.8%	a
Core cost cap past service cost at 2016	-0.1%	b
Member contributions paid 2016 to 2020	-7.1%	c
Core cost cap fund contribution rate*	**25.7%**	a + b - c

*Does not sum due to rounding.

All percentages shown are of pensionable pay per annum to the nearest 0.1%.

Core cost cap fund balance

Why is it calculated?

In order to calculate the core cost cap past service cost we are required to calculate the core cost cap fund balance – that is the difference between the cost cap liabilities and core cost cap fund – and then divide this by pensionable pay.

How is it calculated?

The core cost cap fund is a notional amount of money, building up from 1 April 2015 when the reformed scheme was introduced. It has been estimated at 31 March 2020 using data at this date; we do not expect any approximations inherent in this estimate to have a material impact on the outcome of the cost control mechanism.

The Directions require an illustration of the development of the core cost cap fund between 2015 and 2020. The table to the right, shows the changes from the prior value in 2016 **(a)** to 2020. The change from 2015 to 2016 is found on the following page. Below is a description of each component item:

b: Core cost cap income – income received by the scheme, including contributions. The employer portion of this is that which would have been paid if the core cost cap rate had been in effect (see page 31).

c: Cost cap benefits paid – benefits paid, for example pensions.

d: Core cost cap notional investment returns – notional amount of growth of the core cost cap fund.

e: Past service technical immunity adjustment – adjustment made to the core cost cap fund to exclude the impact of a change in long-term economic assumptions.

Core cost cap fund balance

The table below summarises the calculation of the cost cap fund balance at 31 March 2020.

	£m	
Reconstructed core cost cap fund at 31 March 2016	**21.8**	a
+ Core cost cap income	181.8	b
- Cost cap benefits paid	-0.8	c
+ Core cost cap notional investment returns	17.7	d
+ Past service technical immunity adjustment	40.6	e
Core cost cap fund at 31 March 2020	**261.1**	a + b – c + d + e
- Cost cap liabilities at 31 March 2020	-246.3	
Core cost cap fund balance at 31 March 2020	**14.8**	

All figures shown are calculated to 1 decimal place.

It should be noted that items a, b, c, d and e have been estimated and are shown for illustrative purposes only, in accordance with Directions requirements. They do not have any impact on the outcome of the cost control mechanism.

Economic cost cap fund balance

Why is it calculated?

In order to calculate the economic cost cap past service cost we are required to calculate the economic cost cap fund balance – that is the difference between the cost cap liabilities and economic cost cap fund – and then divide this by pensionable pay.

How is it calculated?

The economic cost cap fund is a notional amount of money, building up from 1 April 2015 when the reformed scheme was introduced. It has been estimated at 31 March 2020 using data at this date; we do not expect any approximations inherent in this estimate to have a material impact on the outcome of the cost control mechanism.

The Directions require an illustration of the development of the economic cost cap fund between 2015 and 2020. The table to the right, shows the changes from the prior value in 2016 **(a)** to 2020. The change from 2015 to 2016 is found on the following page. Below is a description of each component item:

b: Economic cost cap income – income received by the scheme, including contributions. The employer portion of this is that which would have been paid if the economic cost cap rate had been in effect (see page 35).

c: Cost cap benefits paid – benefits paid, for example pensions.

d: Economic cost cap notional investment returns – notional amount of growth of the economic cost cap fund.

Economic Cost Cap Fund Balance

The table below summarises the calculation of the economic cost cap fund balance.

	£m	
Reconstructed economic cost cap fund at 31 March 2016	**21.8**	a
+ Economic cost cap income	181.8	b
- Cost cap benefits paid	-0.8	c
+ Economic cost cap notional investment returns	17.7	d
Economic cost cap fund at 31 March 2020	**220.5**	a + b – c + d
- Cost cap liabilities at 31 March 2020	-246.3	
Economic cost cap fund balance at 31 March 2020*	**(25.8)**	

All figures shown are calculated to 1 decimal place.

It should be noted that items a, b, c, and d have been estimated and are shown for illustrative purposes only, in accordance with Directions requirements. They do not have any impact on the outcome of the cost control mechanism.

Economic cost cap fund

Economic cost cap fund development 2015/16

	£m	
Economic cost cap fund at 31 March 2015	**0.0**	a
+ Economic cost cap income	21.6	b
- Cost cap benefits paid	-0.1	c
+ Economic cost cap notional investment returns	0.3	d
Reconstructed economic cost cap fund at 31 March 2016	**21.8**	a + b – c + d

It should be noted that items b, c, and d in the table above and the economic cost cap fund contribution rate have been estimated and are shown for illustrative purposes only, in accordance with Directions requirements. They do not have any impact on the outcome of the cost control mechanism.

Economic cost cap fund contribution rate

The economic cost cap fund contribution rate is the contribution rate required from the employer to cover the cost of benefits accruing to members over the period 1 April 2016 to 31 March 2020 with an adjustment to reflect any surplus or deficit at 31 March 2016.

This is calculated in a similar manner to the core cost cap fund contribution rate.

It is used to calculate the employer contribution component of the economic cost cap income (see page 34, item b) and its component parts are set out below:

	% p.a.	
Expected cost of benefits accrued 2016 to 2020	32.8%	a
Economic cost cap past service cost at 2016	0.1%	b
Member contributions paid 2016 to 2020	-7.1%	c
Economic cost cap fund contribution rate	**25.8%**	a + b - c

All percentages shown are of pensionable pay per annum to the nearest 0.1%.

Sensitivities – JPS 2022 Employer Cost Cap

Which assumptions is the employer cost cap most sensitive to?

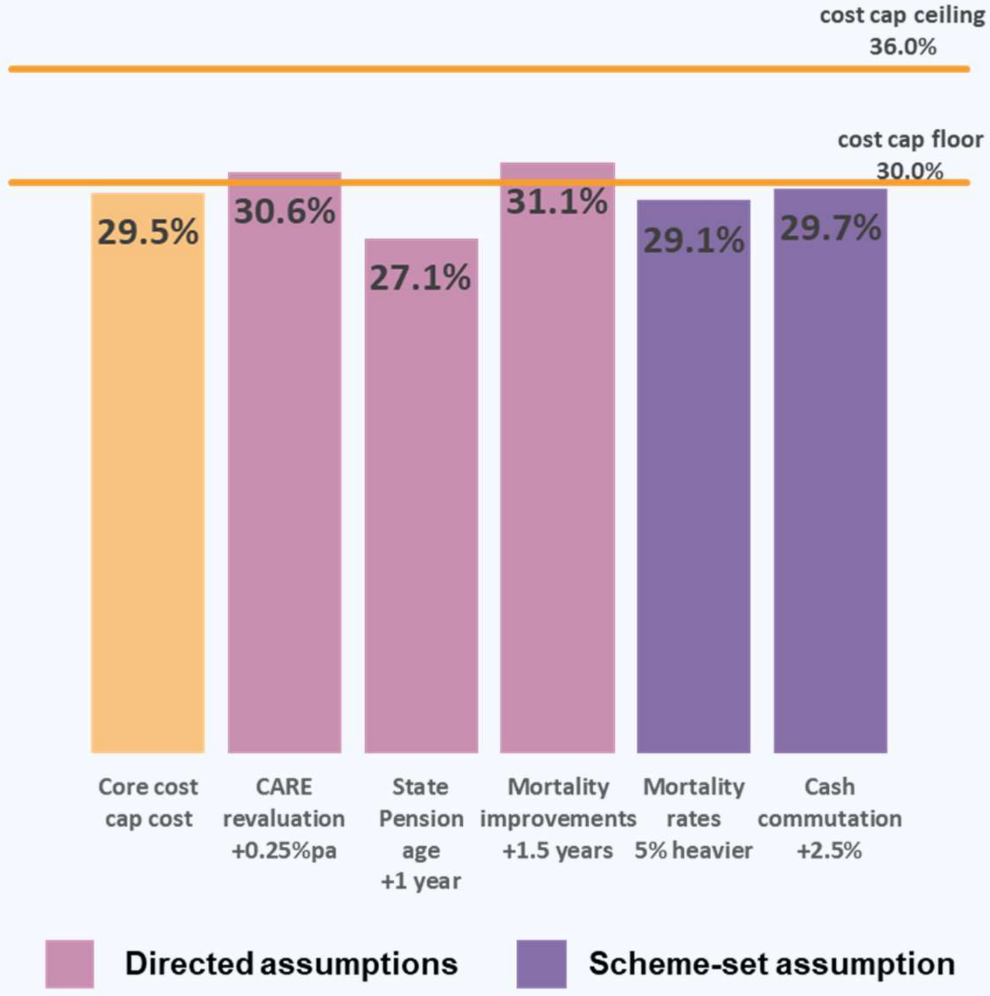
The chart to the right shows the sensitivity of the JPS 2022 Employer Cost Cap to specified changes in a number of key directed and scheme-set assumptions.

It should be noted that:

- The sensitivities have been calculated in isolation for each assumption, leaving all others unchanged.
- Sensitivities are not a prediction of future changes and are not minimum or maximum possible impacts.
- Changes to the assumptions in the opposite direction to illustrated here will produce approximately equal and opposite changes in the valuation results.

Full details of the sensitivities can be found in Appendix A.

Core cost cap cost sensitivity



All percentages shown are of pensionable pay per annum.

Sensitivities

The tables below contain further information on the sensitivity of each of the Employer Contribution Rate and core cost cap cost of the scheme to the assumptions adopted. Also shown is the sensitivity of the economic cost cap cost of the scheme to the discount rate. It should be noted that both the cost of future service and adjustment for past service deficit/surplus elements of these rates are affected by the sensitivities.

The assumptions are split between directed and scheme-set. Details of the baseline directed short-term and long-term assumptions can be found on page 15.

The sensitivities shown in brackets relate only to the change in assumption described. The impact of a combination of assumption changes will not necessarily equate to the sum of those individual rows.

Furthermore, they refer only to the results of this valuation and are expected to change materially over time. It is important to note that these sensitivities are not intended to reflect the possible variation in assumptions at future valuations. Opposite changes in the assumptions will produce approximately equal and opposite changes in the valuation results.

<table>
<tr><th></th><th colspan="2">Increase in</th></tr>
<tr><th>Directed assumptions</th><th>Employer Contribution Rate</th><th>Core cost cap cost</th></tr>
<tr><td>Discount rate in excess of CPI (-0.25% p.a.)</td><td>5.5%</td><td rowspan="3">The core cost cap cost of the scheme is not sensitive to the main CPI linked directed assumptions of discount rate, pension increases and long-term salary.

A 0.25% reduction to the discount rate is estimated to increase the economic cost cap cost of the scheme by 2.3%.</td></tr>
<tr><td>Pension increases applied to deferred pensions and those in payment (+0.25% p.a.)</td><td>3.2%</td></tr>
<tr><td>Long-term rate of public service earnings growth in excess of CPI (+0.25% p.a.)</td><td>0.4%</td></tr>
</table>

Sensitivities

Directed assumptions	Increase in Employer Contribution Rate	Increase in Core cost cap cost
Short-term rate of public service earnings growth (+0.25% p.a. to each short-term rate)	0.7%	0.0%
CARE revaluation rate (+0.25% p.a.)	1.1%	1.1%
Allowance for future mortality improvements (changing improvements, from ONS 2020 to ONS 2016, which increases life expectancy by broadly 1.5 years)	4.5%	1.6%
State Pension age for 2015 and 2022 Schemes (one year later than under current Directions)	-2.9%	-2.4%
Deficit spreading period (increased by 5 years)	-4.9%	0.0%

Scheme-set assumptions	Increase in Employer Contribution Rate	Increase in Core cost cap cost
Mortality rates (5%* heavier rates of baseline pensioner mortality)	-1.6%	-0.4%
Cash commutation (additional 2.5% of pension assumed to be commuted)	0.1%	0.2%

* Represents a multiplicative increases to rates, i.e. 5% means rates 1.05 times higher.

Sensitivities

	Increase in	
Scheme-set assumptions	**Employer Contribution Rate**	**Core cost cap cost**
Ill-health retirement ** (5%* increase in number of retirements)	N/A	N/A
Proportions married / partnered (5%* more members assumed to have qualifying partners at death)	0.5%	0.1%
Resignations and opt outs** (10%* more pre-retirement voluntary leavers assumed, net of rejoiners)	N/A	N/A
Promotional pay increases (+0.25% p.a.)	0.8%	0.0%

* Represents a multiplicative increases to rates, i.e. 10% means rates 1.10 times higher.
** Sensitivity was not performed as it is assumed that no active members retire in ill health or resign due to limited number of member events and available scheme data.

Appendix B: Climate Change

Climate Change – risks

Why consider climate risk?

- Public service pension scheme valuations tend to have long-term horizons, over which climate change can have a significant impact.
- Climate change may affect scheme experience as well as the prevailing economic and societal landscape. These may all impact on the assumptions required for valuations.
- Climate change may also have material implications for departmental spending reviews/plans and the cost of benefits now and in the future.
- In the wider UK pensions sphere, requirements to consider and disclose the potential impact of climate change are increasing.
- The Financial Reporting Council which sets technical standards for actuarial work in the UK requires the impact of climate change to be reflected and reported on in pension scheme valuations. The UK government has announced plans to implement TCFD* recommendations in the annual reports and accounts of central government departments by 2025-26.

Assessment challenges

- Climate change is unprecedented and so past data cannot be relied upon to predict future experience.
- Climate risk analysis and modelling techniques are still in their infancy compared with many other pensions risks.

Climate risk types

Future outlook

Climate change and the steps to mitigate it are already underway. Risks relating to this are expected to emerge in the scheme's valuation results over the short to medium-term.

It should be noted that depending on the success and efficiency of our transition to a low carbon world, there may be potential for an improved economic outlook and scheme experience compared with the 2020 valuation assumptions.

* https://www.fsb-tcfd.org/

Climate Change – scenario analysis

Climate scenarios

- The assumptions used in the 2020 valuation of the scheme are required to be best-estimate, including allowing for expected future GDP growth and life expectancy progression.
- In the remainder of this Appendix we consider three climate scenarios; their potential impact on valuation assumptions; and how these in turn might impact on the cost of future benefits payable from the scheme.
- The high degree of uncertainty surrounding climate change means that actual climate outcomes may be very different to the scenarios considered. However, the themes illustrated should still be useful for understanding and planning for potential risks.
- The scenarios cover a range of outcomes. No probability is assigned to the likelihood of each scenario.

Analysis process

- Drawing upon the climate impact analysis shared by, and our discussions with, relevant bodies (e.g. OBR, IFoA and NGFS*); for each scenario, we have considered how expectations of key valuation assumptions may have changed by 2040.
- It has been assumed that by 2040, it is clear what climate pathway the world is on. Hence, the valuation assumptions at this time would fully reflect the expected implications of that pathway.
- These assumptions have then been used to consider the potential cost of future benefits at 2040.
- For each intermediate valuation date between 2020 and 2040 we have then considered how the cost of future benefits might progress under each scenario.
- Note that the scenario analysis makes no allowance for potential future pension policy or membership changes.

An overview of the three climate scenarios we have considered is shown on the next page – these are described in terms of the changes anticipated over the period to the end of the century. The potential impact of these scenarios on key valuation assumptions is shown on page 47, along with consideration of their impact on the cost of future benefits payable from the scheme on pages 45 and 46.

* https://www.ngfs.net/en

Climate Change – scenario overviews

Orderly Transition

- An orderly transition to manage climate risk where actions are planned, and adaptation is methodical.
- Short-term **transition risk** impacts from policy / regulation changes.
- Medium and long-term growth and stabilisation of risk**,** with less **physical risk** overall due to early transition.

Estimated +1.5°C at 2100 vs pre-industrial temperatures

Disorderly Transition

- Similar long-term warming outcome to an orderly transition but achieved in an uncoordinated and disorderly fashion.
- Short-term disruption avoided until pressure to meet targets mounts in the medium-term leading to significant **transition risk**.
- Long-term stabilisation of risk.

Estimated +1.5°C to +2.0°C at 2100 vs pre-industrial temperatures

Failed Transition

- Failure to adapt and mitigate climate change at a global level*.
- No transition to a low carbon economy, hence limited **transition risk**.
- However, significant and increasing amounts of **physical risk** lead to severe direct and indirect financial consequences.

Estimated +4.0°C at 2100 vs pre-industrial temperatures

- Caution, these are illustrative scenarios and should not be used to make specific decisions.
- To consider specific climate change related risks please seek further advice.
- For details of the limitations of our scenarios and analysis, please see page 47.

* The UK only represents a small proportion of global emissions, hence, even if transition plans are met in the UK, climate change will continue to occur unless the rest of the world also takes appropriate actions.

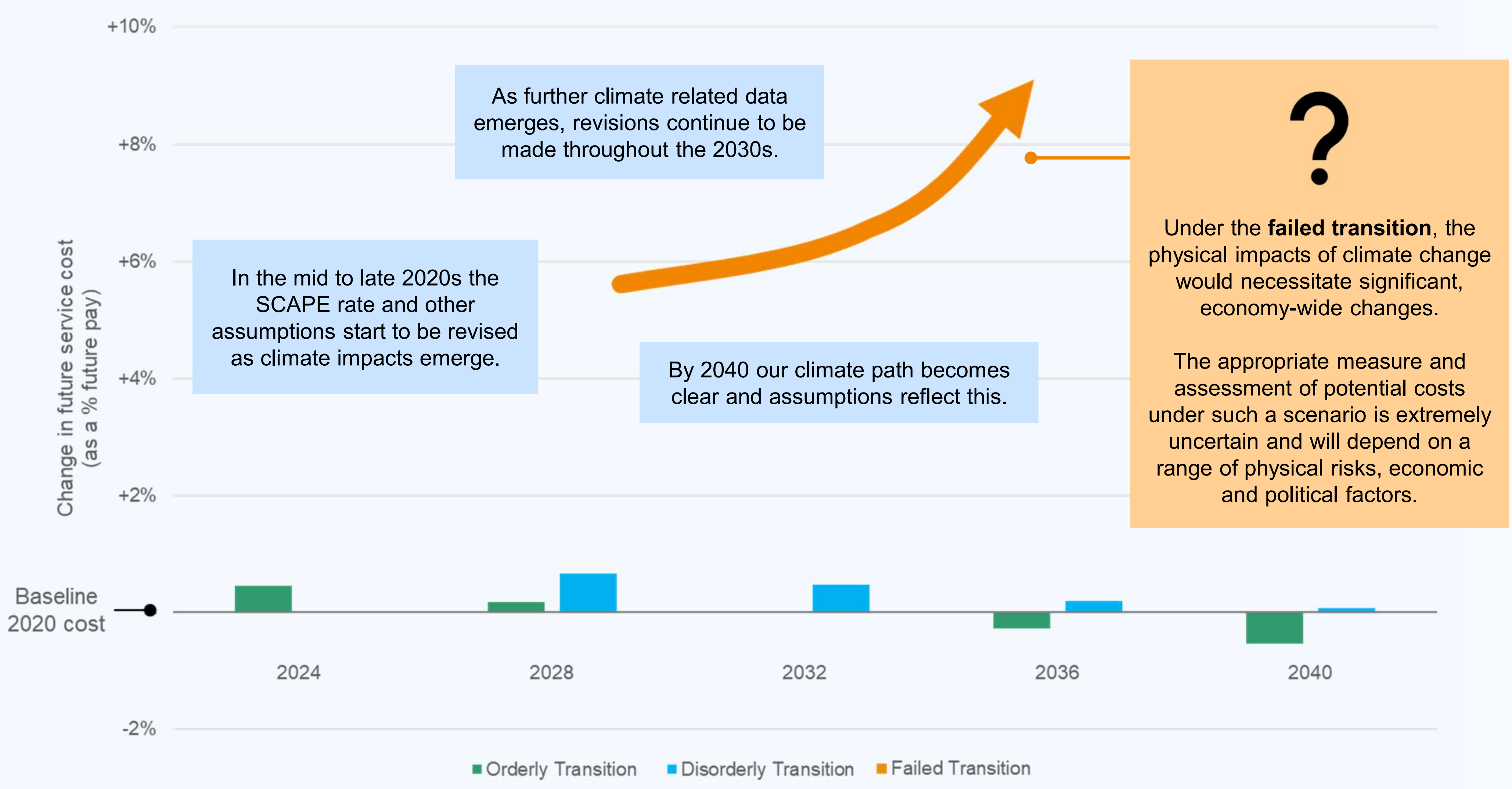
Climate Change – scenario assumptions

Under each scenario below, we set out how expectations of key valuation assumptions may have changed by 2040. The changes in the SCAPE discount rate have the most significant impact on the results. This is in line with the sensitivities shown on page 36. For further details on these and the methodology adopted in our analysis, please refer to page 53.

Assumption at 2040	Orderly Transition	Disorderly Transition	Failed Transition
Inflation rate	No change. We have assumed that the Bank of England takes action to keep long term inflation in line with its 2% target under all scenarios.		
SCAPE discount rate	Increases due to higher long-term growth enabled by an early transition.	Decreases slightly due to the higher costs of mitigation and transition risk.	Decreases significantly due to the financial implications of severe physical risks.
Life Expectancy	Improves due to significant reduction in air pollution, better diet and positive economic outlook.	Worsens overall, as improvements due to reduction in air pollution are more than offset by somewhat worse economic outlook.	Worsens primarily due to secondary impacts of a long-term worsening economic outlook.
Salary Increases	Increases due to higher long-term growth.	Decreases slightly due to disorderly nature of transition.	Decreases due to worse economic outlook.
Other scheme experience and member option assumptions	On the grounds of materiality and the high level of uncertainty, we have not made explicit assumptions for potential changes to member behaviour under each scenario.		

Climate Change – scenario impact comparison

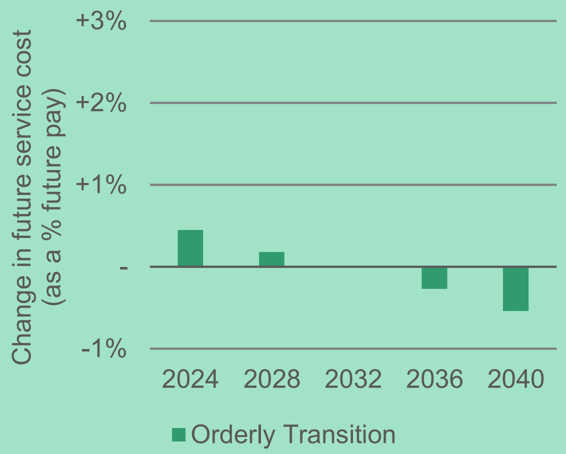
The chart below compares the estimated change in the cost of future benefits at each valuation up to 2040 under each scenario. The next page sets out the rationale for the progression of future valuation costs under each scenario.



Climate Change – scenario impacts

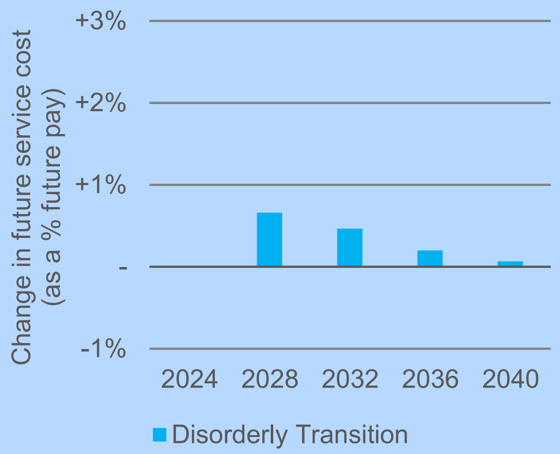
Orderly Transition

- Cost increases initially due to transition risk and the associated costs of implementing policies.
- This falls as successful transition occurs, expectations of economic growth improve and cost of future benefits returns to c2020 levels.
- Continued increases to economic growth expectations reduces the cost of future benefits despite longer life expectancies.



Disorderly Transition

- Limited short-term action means there is no impact by 2024.
- A sudden rush to take action to meet climate targets leads to transition risk that increases the cost of future benefits.
- The rapid progress made starts to reduce the cost of future benefits; however, the reduced expectations of future economic growth keeps the cost above the 2020 level.



Failed Transition

- In the short-term there would be no successful global action.
- As this continues into the medium term there will likely be shock realisations of the significant physical risk developing on the climate pathway.
- Under a failed transition any global action to mitigate this would be insufficient and physical risk would continue to mount resulting in non-linear and potentially irreversible worldwide impacts.
- Under the adopted methodology the results are sensitive to changes in expectations of economic growth through the SCAPE rate - see sensitivity on page 37.
- Assuming pension costs continue to be measured in the same way as currently, costs would increase substantially as the SCAPE rate decreases.

Climate Change – assumptions and limitations

Limitations of climate scenario analysis

Modelling climate change involves understanding and estimating: future physical climate risk impacts; transitional costs; and how macro-financial variables are affected.

The uncertainty in our assumptions and results in part comes from the uncertainty in existing climate models. In particular, a number of known shortcomings are listed below:

- **Tipping points**: These are thresholds that once crossed may cause irreversible changes in the earth's system. Anticipating the point at which a tipping point would be reached and its consequences is challenging. As a result, tipping points are often excluded from climate models.
- **Speed of realising climate impacts**: Due to the various levers acting over a range of timescales, the timing of the emergence of different climate change impacts is uncertain.
- **Geographical spread of impacts**: Whilst the climate change impacts under any scenario are generally expected to be less severe on the UK relative to the world average, the geographical spread is still uncertain. Ultimately the climate outcome will be determined by overall global emissions (of which the UK contributes a small part).
- **Potential future climate policies**: These are also very difficult to model, if at all, due to their subjective nature.

Assumptions and limitations

A summary of the key long-term valuation assumptions that we have used to consider the impact on the cost of benefits at 2040 under each climate scenario is set out below. The scheme membership profile is assumed to be unchanged from the 2020 valuation with future accrual in the CARE scheme.

Assumption vs baseline	Orderly Transition	Disorderly Transition	Failed Transition
SCAPE discount rate (p.a. in excess of CPI)	+0.10%	-0.05%	-1.20%
Non-pensioner life expectancy	+0.5 years	-0.4 years	-1.6 years
Salary Increases	+0.10%	-0.05%	-1.20%

It should be noted that the climate change scenarios and impacts shown in this report are purely illustrative and no decisions should be made on their basis.

They are based on a consideration of the cost of future benefits at 2040 combined with the knowledge we would have at that point regarding the climate pathway being followed.

For intermediate valuation dates between 2020 and 2040, the cost of future benefits has been considered based on the scenario narratives.

Appendix C: Benefits

Summary benefits

The benefits provided to members of the pre 2015 legacy schemes are established and governed by Judicial Pension Act 1981 (1981 c 20), the Judicial Pensions and Retirement Act 1993 (1993 c 8), and The Fee-Paid Judicial Pension Regulations 2017 (SI 2017/522). Whilst the JPS 2015 scheme benefits are set out in regulations SI 2015/182. The main provisions are summarised over the next two pages.

The 2015 scheme was introduced from 1 April 2015 and many pre 2015 scheme members transferred to it on this date. From 31 March 2022 all members accrue benefits in the 2022 scheme. McCloud eligible members will have the choice of either the legacy schemes or the NJPS 2015 scheme for the period 1 April 2015 to 31 March 2022.

	1981 Scheme	1993 Scheme	2015 scheme
Basis of provision	Final salary		Career average with revaluation of CPI whilst in service
Contracted out/in prior to 2016	Contracted out		
Normal Pension Age (NPA)	Higher Judiciary: On completion of 15 years' service or age 70 and Other: age 65 and on completion of 15 years' service	65, or on completion of five years' service (if later)	Higher of a member's State Pension age and 65
Pension accrual rate	Maximum pension of approximately 50% of final pensionable salary	1/40	2.32%
Retirement lump sum structure	2 x pension	2.25 x pension	Cash by commutation only (£12:£1 pa)
Final pensionable pay	Annual salary in payment at the date of retirement		Not applicable

Summary benefits

	1981 Scheme	1993 Scheme	2015 scheme
Dependants' benefits	Lump sum: 1 x pensionable remuneration A spouse's or civil partner's pension of half the member's notional pension based on the member retiring on ill health grounds at the date of death. Children's pension may also be payable.	Lump sum: 2 x pensionable remuneration A spouse's or civil partner's pension of half the member's notional pension based on the member retiring on ill health grounds at the date of death. Children's pension may also be payable.	Lump sum: Greater of 2 x Final pay, 5 x member's pension Surviving adult's pension: 37.5% of the scheme member's pension plus an enhancement factor. Children's pension may also be payable.
Ill health pension	Pension based on actual service, no reduction for immediate payment	Pension based on actual service plus half of potential service to NPA, no reduction for immediate payment	Pension equal to the accrued pension, plus half of the expected pension that the member would have accrued before scheme pension age, no reduction for immediate payment.
Early Retirement	Either a refund of contributions, a preserved pension payable from NPA or a transfer payment to another scheme or to an insurance company.		
Pension increases	In payment – increased in line with the PI Act, on excess over GMP (for members over GMP payment age, only excess over GMP receives full increases) In deferment – total pension increased in line with the PI Act		

Summary benefits

2017 scheme (FPJPS)

The 2017 scheme for final salary benefits for fee paid judges was set up following a court judgement and was not operational until 1 April 2017. It was introduced to meet the requirement to provide eligible fee-paid judicial office holders with pension benefits no less favourable than those provided at the time to salaried judges by the 1993 scheme. Benefits are based on those in the 1993 scheme.

2022 scheme (JPS 2022)

The benefit structure of the JPS 2022 is closely related to the benefit structure of the 2015 scheme. All active members transferred to the 2022 Scheme on 1 April 2022 and all future accrual is in this scheme from that point onwards.

For the purposes of our calculations the key differences in member benefits are:

- An increase in the default rate of pension accrual from 2.32% pa to 2.5% pa;
- An additional lump sum at retirement which is intended to compensate members for the tax treatment of lump sums in an unregistered pension scheme;
- A member contribution rate of 4.26% for members at all salary bands; and
- An option to accrue pension at a lower rate of accrual than the default rate and pay a lower member contribution (albeit that we understand there has been minimal uptake by the membership and the option expires by 31 March 2025).

Appendix D: Methodology, Assumptions and Notional Assets

Methodology

Employer Contribution Rate

One of the key outputs of valuation process is the Employer Contribution Rate. To assess this we:

- Calculate the percentage of total projected pensionable pay needed to meet the benefits accrued over the implementation period **(cost of future benefits)**.
- Assess whether there is any deficit/surplus at the effective date and add to this any arising between the effective and implementation dates **(past service position)**.
- Spread this total deficit/surplus over 15 years **(adjustment due to deficit/surplus)** and express it as a percentage of total projected pensionable pay. Then add/subtract this resulting percentage from the cost of future benefits.
- Subtract member contributions expressed as a percentage of total **projected pensionable payroll**.
- Assess whether any further adjustments are required to the resulting Employer Contribution Rate in respect of the cost control mechanism. This process is described on page 5.

The items in **bold** are considered in turn in further detail.

Cost of future benefits

To assess the cost of future benefits we:

- Estimate the benefits that are accrued by each scheme member (and their dependants where applicable) over the implementation period.
- Express these as a stream of future projected cashflows.
- Calculate the capital sum needed at the effective date to meet this stream of future cashflows. This is done by discounting the cashflows using the discount rate.
- Divide this capital sum by the 'present value' of total pensionable pay over the implementation period

This methodology is known as Projected Unit and is specified by the Directions.

The Directions also specify that benefits should be attributed to periods of service in accordance with the requirements of International Accounting Standard 19: Employee Benefits.

In carrying out the above steps we need to make assumptions about the future service and salaries of scheme members, and the length of time over which they will receive benefits. These assumptions are summarised on pages 54 and 55.

We also make a number of more minor assumptions and these are summarised on pages 56 to 59.

Methodology

Past Service Position

To assess the surplus/deficit at the effective date we:

- Estimate the benefits accrued by each scheme member (and their dependants, where applicable) in respect of service accrued prior to the effective date (past service).
- Express these as a stream of future projected cashflows.
- Calculate the capital sum (past service liabilities) needed at the effective date to meet this stream of future cashflows. This is done by discounting the cashflows using the discount rate.
- Subtract from this capital sum the value of the notional assets at the effective date. The assets are described as notional as there is no actual fund set aside to pay benefits (see page 55 for more details).

We then need to calculate any surplus/deficit arising **between the effective and implementation dates** caused by benefits built up over this time being less/more than contributions paid. When added to the surplus/deficit at the effective date this gives the **past service position**.

As per the assessment of the future service position, in carrying out the above steps we need to make assumptions about the future service and salaries of scheme members, and the length of time over which they will receive benefits.

Adjustment due to deficit/surplus

If the scheme's notional assets are less than the past service position, the fund is said to be in deficit. This deficit needs to be met by an adjustment (addition) to the contribution rate, over a 15 year period.

Conversely, if the scheme's notional assets are more than the past service position, the fund is said to be in surplus. This deficit needs to be met by an adjustment (reduction) to the contribution rate, over a 15 year period.

The adjustments due to deficit/surplus at the effective date and that arising between the effective and implementation dates, were identified separately on pages 7 and 22 of this report.

Projected Pensionable Payroll

In order to carry out our calculations, pensionable payroll is projected from the effective date to the start and end of the implementation period. These projections are shown in the table below.

Date	Pensionable Payroll (£bn)
Effective date (31 March 2020)	0.37
Start of implementation period (1 April 2024)	0.42
End of implementation period (31 March 2027)	0.45

Pensionable payroll is also projected over the above-mentioned 15-year deficit spreading period. The approach taken is detailed further on page 56.

Assumptions and Notional Assets

Assumptions

In assessing the cost of past and future service benefits we have made assumptions about the future service and salaries of scheme members, and the length of time over which they will receive benefits.

In doing so we are assuming that a largely stable active population will be maintained.

Our calculations therefore assume that over the period from the effective date to the end of the implementation period, the overall profile of the membership in terms of distribution of headcount and pay by age and gender will remain stable.

The implied expected future pensionable service and length of time over which members receive benefits (duration of liabilities) are summarised in the table below.

Member Type	Average expected future pensionable service	Duration of liabilities
Active Member	11.9	20.6
Current Pensioner	N/A	8.9

Notional Assets

The benefits paid to scheme members are not met from a ring-fenced fund set aside for this purpose. Instead they are financed by contributions from employers and current members which fall into general government revenues.

An account is maintained of these contributions and they are ‘rolled up’ from year to year using pre-determined notional rates of return and reduced by benefits as and when they are paid.

The resulting amount is known as the notional assets and stood at £2.8bn as at the effective date. Page 23 provides further information on the development of the notional assets since the previous valuation as at 31 March 2016.

Core and Economic Cost Cap Funds

In a similar way to which the notional assets are required to assess the past service position of the scheme, core and economic cost cap notional funds are required to assess the core cost cap and economic cost cap past service costs respectively.

These notional funds have been estimated at 31 March 2020 using data at this date. The estimate is equivalent to ‘rolling up’ the values of the notional funds at the previous valuation using pre-determined notional rates of return, and adjusting for income received, benefits paid and other technical adjustments.

Full details can be found in pages 32 to 35.

Minor assumptions

Deficit spreading

The scheme's projected pensionable payroll over a 15-year period is required to spread deficits. An estimate has been calculated using payroll data at the valuation date, projected forward with the earnings increases described on page 15.

That has then been adjusted to reflect the know payroll over 2022-23 from the scheme's accounts, with payroll after that date projected forward with the earnings increases described on page 15. This adjustment increases the employer contribution rate by 0.9% p.a..

Public Sector Transfer Club (PSTC)

The Judicial Pension Schemes do not participate in the PSTC, so the PSTC does not have any impact on the valuation.

Guaranteed Minimum Pensions (GMPs)

For pensioners reaching State Pension age (SPa) prior to 6 April 2016, certain increases on the GMP part of pensions are not the responsibility of the scheme. This is reflected through an overall adjustment to the past service liabilities**.** The adjustment is equivalent to a reduction in the employer contribution rate of 0.3% p.a.. There is no impact on the cost control mechanism.

During the inter-valuation period, the Government announced that members reaching SPa after 6 April 2021 will receive full indexation of public service pensions. This follows previous similar announcements covering earlier periods. Given the age profile of the Judicial Pension Schemes, we expect that providing full indexation on GMPs will not have any material impact on the Judicial Pension Schemes.

Timing of increases

Pension increases and reformed scheme in-service revaluations are assumed to occur annually in April.

General salary increases are assumed to occur annually, in the middle of the calculation period.

Progression / promotional increases are assumed to occur evenly throughout the year (so on average halfway through).

Minor assumptions

Final Pensionable Pay

Members' legacy scheme final salary benefits have been valued by projecting salary data at the valuation date up to the point of their assumed retirements. No explicit allowance has been made for the impact of prior years' earnings resulting in higher final pensionable pay for particular members as the impact is not expected to be material.

Actuarial factors

Certain benefit options available to members of the scheme are determined using tables of factors. These are typically generated following advice from the actuary, and are generally set to be broadly cost-neutral against the assumptions used for a valuation. In our calculations, we have assumed that, where material, the factors used at a particular point in time in our calculations are reflective of those that were / are expected to be in force at that date.

Income tax and National Insurance

The valuation framework considers cash amounts into and out of the pension scheme. Calculated liabilities therefore reflect full payments and do not, for example, allow for any deductions applicable prior to receipt by members.

Goodwin judgment

A case ('Goodwin') brought in the Employment Tribunal against the Teachers' Pension Scheme in 2020 highlighted the potential for the form of dependants' benefits to result in direct sexual orientation discrimination. The Government announced that it will make amendments to the public service scheme, where appropriate, to address this discrimination.

This is not expected to be material to the Judicial Pension Scheme because in 1992 women members were given an option to equalise contributions and benefits for all service. Therefore, no adjustments have been made to the calculation of the employer contribution rate. There is no impact on the cost control mechanism.

Impact of change to discount rate

We have estimated the impact on the employer contribution rate of the 0.7% p.a. reduction in the SCAPE discount rate since the previous valuation. Various approaches could be justified, depending on the objectives of the assessment. We have assumed:

- The SCAPE discount rate change occurs prior to all other changes in the contribution rate reconciliation
- The impact includes costs related to future benefit accrual, past service liabilities, and also any shortfall / surplus occurring over the period 2020 to 2024.

Minor assumptions

Judicial Pension Scheme 2022 commutation supplement

An additional lump is payable at retirement which is intended to compensate members' for the tax treatment of lump sums in an unregistered pension scheme. It has been assumed that members' marginal tax rate at retirement is 45% for this calculation. Any change in the marginal tax rate will have an impact on scheme costs.

Judicial Pension Scheme 2022 lower accrual rate option

Members have an option to accrue pension at a lower rate of accrual (2.32%) than the default rate (2.50%) and pay a lower member contribution (3.0% vs 4.26%) until 31 March 2025. On grounds of materiality no allowance has been made for this member option.

Minor assumptions

The impact of the factors set out on this page have been considered in aggregate. As such, we have determined no material adjustments are required when setting the employer contribution rate, or as part of the cost cap mechanism.

Children and dependants' pensions

The cost to the scheme of paying existing and future pensions to children, or short-term dependants' pensions, on the death of a scheme member.

'Pension debits' for active / deferred members

Savings arising from 'pension debit' deductions to be applied to divorcing members' retirement pensions as a result of a pension sharing order.

'Scheme pays' deductions for active / deferred members

Savings arising from 'scheme pays' debits to be applied to retirement pensions as a result of the scheme having previously paid pension tax charges on behalf of members.

Additional voluntary contributions

The cost of additional pension benefits secured through the payment of additional voluntary contributions through the scheme's regulations.

Additional contributions purchasing benefits on a defined contribution basis are separate to the pension scheme and have not been considered in the valuation.

Earnings Cap

Savings to the scheme arising from members whose pensions at retirement are restricted by the Earnings Cap. This cap limits the final pensionable pay which can be used to calculate the final salary benefits payable in certain legacy schemes.

Expenses

The costs of administering the scheme are outside the framework set by the Directions and so are not directly included in our valuation calculations. An administration levy will therefore be payable in addition to the employer contribution rate shown on page 7 and throughout this report.

Appendix E:
Inter-valuation events

McCloud

What is McCloud?

In December 2018 the England and Wales Court of Appeal judgment upheld claims of age discrimination brought by some firefighters and members of the judiciary against transitional protection rules. This became known as the McCloud judgment, so called after one of the claimants' names. These rules determined the date on which some members would move between the legacy schemes and the reformed scheme.

Why does it matter?

The outcome of the remedy required to address the judgment is twofold:

- MoJ is conducting an option exercise to allow eligible members to select either the legacy schemes or the NJPS 2015 scheme for the period 1 April 2015 to 31 March 2022.
- All active members were transferred to JPS 2022 from 1 April 2022.

Members are likely to choose the option that provides them with the highest benefits. To allow for the McCloud remedy in our calculation methodology we have valued the 'greater value' benefits for groups of member when comparing their legacy scheme and NJPS 2015 scheme service.

Who is affected?

The McCloud judgment typically affects those who were in active service on both 31 March 2012 and 31 March 2015. These members are said to be **in scope**.

Where can I find out more?

Full details of the MoJ's consultation on the McCloud remedy are available online.

GAD allowed for impact of McCloud in the 2016 cost cap valuation of the scheme. Details of these calculations can be found in this report.

This valuation adopts the same approach for calculating the cost of McCloud as part of the employer contribution rate. The only changes are to:

- allow for revised demographic and financial assumptions that apply as at 31 March 2020
- update the estimated payroll of salaried and fee paid judges in scope of McCloud over the remedy period 2015-22
- allow for the impact of adjustments to member contributions

The 2016 cost cap valuation included the full impact of McCloud remedy on the cost control mechanism. Under the reformed mechanism there is no further McCloud impact on the 2020 cost cap valuation of the scheme.

Other changes

Allowance for Northern Ireland Judges

A separate reform scheme was implemented for devolved Northern Ireland judges on 1 April 2015. Subsequently, all Northern Ireland judges have been enrolled in the JPS 2022 scheme from 1 April 2022 in line with all judges in the UK. Going forward employer and employee contributions will be paid into the same scheme by judges in Northern Ireland & Great Britain. The Directions require the past scheme liabilities of the NI JPS 2015 scheme to be included within the total Scheme liabilities and the notional assets to be adjusted to reflect the contributions made to the NI JPS 2015 scheme over the 2015-2020 period, the value of which was £3 million at 31 March 2020 (0.1% of total assets), which has been recognised as income received in fund of notional assets (see page 23). This has a marginal impact on the scheme deficit figure (set out on p23) to the extent that the notional asset adjustment differs from the assessed liabilities for these members.

Southby judgment

A case (‘Southby’) brought in the Employment Tribunal against the Ministry of Justice highlighted the potential pension benefits resulting from a remedy in relation to past pensionable pay for around 160 Judges. We have been provided with a high level estimate of the pensionable pay to be compensated of c. £24m and understand that the majority of the impacted members would have accrued benefits in FPJPS. From this we have been able to calculate a ‘broadbrush’ estimate of the potential impact on valuation liabilities and estimate the impact is to increase the employer contribution rate SCR by 0.3% pay.

Other events since the 2016 valuation

Member contributions

JPS 2022 has a single member contribution rate of 4.26% pay for all members, regardless of salary.

Employer contributions

Regular employer contributions were paid at a rate of 38.2% of pensionable pay up to 31 March 2019. Since then, they have been paid at a rate of 51.1% of pensionable pay. An administration levy is also paid in addition to these amounts by employers, currently 0.25% pay.

In-service revaluations

The rates of CARE revaluation applied to the accrued pensions of those members of the 2015 scheme who were in-service between the 2016 and 2020 valuation dates, are set out in table below.

Year commencing	In-service revaluation
April 2016	-0.1%
April 2017	1.0%
April 2018	3.0%
April 2019	2.4%
April 2020	1.7%
April 2021	0.5%
April 2022	3.1%
April 2023	10.1%

Other events since the 2016 valuation

Pension increases

The rates of increase applied to pensions in payment since the 2016 valuation are set out in the table below.

Year commencing	Pension increase
April 2016	0.0%
April 2017	1.0%
April 2018	3.0%
April 2019	2.4%
April 2020	1.7%
April 2021	0.5%
April 2022	3.1%
April 2023	10.1%

Legal Cases

A number of legal challenges, have been brought against public service (and other) pension schemes since the 2016 valuation of the scheme. This report describes the allowances that we have included at this valuation in respect of those cases.

In some cases, final determinations are outstanding, or impacts have yet to be agreed. Such determinations could impact on future valuations, however prior to their outcomes being known we have not made any allowance for them in the current valuation.

Other events since the 2016 valuation

Cost Control Mechanism Review

Following the provisional results of the 2016 valuation, HM Treasury questioned whether the cost control mechanism, in its then current form, was too volatile. Following this, at HM Treasury's request, the Government Actuary conducted a review of the cost control mechanism. The Government Actuary's final report to HM Treasury containing his findings and recommendations was published in June 2021.

Full details of the consultation, the proposed changes to the cost control mechanism and the Government's response can be found in HM Treasury's document:

Public Service Pensions: cost control mechanism consultation

HM Treasury has implemented the changes to the cost control mechanism for the 2020 valuation. Further details of the cost control mechanism can be found on page 27.

SCAPE rate review

From June to August 2021 the Government held a public consultation into the methodology for setting the SCAPE discount rate, the discount rate used in the valuation of public service pension schemes to set the employer contribution rates.

In March 2023, the Government issued its consultation response full details of which can be found at the link below:

Public Service Pensions: Consultation on the discount rate methodology

Details of the level of the SCAPE discount rate used for the 2020 valuation can be found on page 15.

Appendix F: Compliance, Limitations and Data Uncertainty

Compliance

Purpose

GAD has been appointed as scheme actuary by the Judicial Pension Scheme as at 31 March 2020 (the effective date), as required by the scheme regulations.

This report has been prepared for the use of the Lord Chancellor and the Ministry of Justice.

Its purpose is to set out the results of the 31 March 2020 valuation, namely:

- The calculated Employer Contribution Rate payable in respect of the period 1 April 2024 to 31 March 2027
- The calculated employer cost cap for JPS 2022

It has been prepared in accordance with the Public Service Pensions Act 2013, the Directions and scheme regulations.

The information and advice in this report should not be relied upon or assumed to be appropriate for any other purpose, or by any other person.

Throughout this report the totals given for summed data may not be exactly the same as the sum of the components shown due to rounding effects.

Sharing

We are content for the Ministry of Justice to release this report to third parties, provided:

- It is released in full;
- The advice is not quoted selectively or partially;
- GAD is identified as the source of the report;
- GAD is notified of such release, and;

Third parties whose interests may differ from those of the Ministry of Justice should be encouraged to seek their own actuarial advice where appropriate. GAD has no liability to any person or third party for any act or omission taken, either in whole or in part, on the basis of this report.

Compliance statement:

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

Reliances, Limitations and Data Uncertainty

Reliances and Limitations

In preparing this report, GAD has:

- Relied on the data and other information supplied by the administrators of the scheme, as described in our Membership data report, dated 7 February 2024. The limitations set out in that report apply equally here.
- Used directed and scheme-set assumptions.

HM Treasury consulted with the Government Actuary on the directed assumptions. These are reasonable in our opinion, as they meet the Government's policy objectives.

The scheme-set assumptions were discussed with the Ministry of Justice and are summarised in our Advice on assumptions report dated 7 February 2024. The limitations set out in that report apply equally here.

Checks, Adjustments and Reconciliations

GAD carried out a significant review of the data supplied to us and excluded records deemed to be unreliable, or not usable due to missing data. Certain processing adjustments were also made to the data received to prepare it for the calculations.

At the final checking stage, the adjusted data was used to calculate liabilities which were reconciled approximately against the 2016 valuation results, adjusted for accounting cashflows.

Can data issues cause uncertainty?

Our checks, adjustments and reconciliations aim to ensure that the data is appropriate for use in valuation calculations.

The more confidence we have that the dataset adopted reflects that of the true scheme, the more confidence we have in the accuracy of the valuation results.

However, our checks do not constitute a full data audit and our adjustments, although reasonable in our view, may not mean that the dataset adopted accurately reflects the scheme reality.

As a result, residual **data uncertainty** exists, however this is normal in large, complex data sets and isn't usually concerning.

Is data uncertainty a significant issue?

We are comfortable that the checks and adjustments that have been made are reasonable and the data is appropriate for the purpose of the 2020 valuation. In our opinion, the potential impact of data uncertainty on the employer contribution rate and member outcomes (via the cost control mechanism) is:

- **Employer contribution rate:** The uncertainty will be captured together with other experience and changes through the 2024 (or subsequent) valuations and is expected to have an impact of not more than ±1% of pensionable pay in respect of the core valuation data, and not more than ± 1% of pensionable pay in respect of the O'Brien 2 & Miller data.
- **Member Outcomes**: No impact expected.

Appendix G: Directions locations

Location of material required by Directions

Direction 22 outlines the reporting requirements for the demographic analysis of the scheme.

Reporting Direction	Description	Relevant Directions	Location (Page, Appendix or Report)
22 (1), (3), (4)	Summary of demographic analysis		Assumption Report
22 (2)	Statement where scheme membership data not sufficient to carry out analysis		Assumption Report

Direction 23 outlines the reporting requirements for information about the scheme and data.

Reporting Direction	Description	Relevant Directions	Location (Page, Appendix or Report)
23 (1) (a)	Information regarding scheme membership		12 and Data Report
23 (1) (b)	Average age of scheme members on effective date		Data Report
23 (1) (c)	Average expected future pensionable service of scheme members in service at the effective date		Appendix D
23 (1) (d)	Total projected payroll at i) effective date, ii) the implementation date and iii) last day of implementation period		Appendix D
23 (1) (e)	Statement that valuation results have been prepared in accordance with the requirements		4 and Appendix F
23 (1) (f)	A summary of regulations, Directions and professional standards relating to the valuation		Appendix F

Reporting Direction	Description	Relevant Directions	Location (Page, Appendix or Report)
23 (1) (g)	A summary of the main provisions of the scheme		Appendix C
23 (1) (h)	An analysis of the demographic experience	22	13 and Assumptions Report
23 (1) (i)	A statement of the assumptions used by the scheme actuary in preparing the report		14, 15, Appendix D and Assumptions Report
23 (1) (j)	Other liabilities of the scheme		n/a
23 (1) (k)	Any other matters the scheme actuary considers to be relevant		n/a
23 (2) (a)	Sensitivity to the number of years used to spread costs	14	Appendix A
23 (2) (b)	Sensitivities to assumptions specified in the Directions	15, 16, 17, 18, 19a, 19d	17 and Appendix A

Direction 24 outlines the reporting requirements for information about Employer Contribution Rate.

Reporting Direction	Description	Relevant Directions	Location (Page, Appendix or Report)
24 (a)	Liabilities as at effective date	27	Appendix A
24 (b)	Notional assets as at effective date	28	Appendix A
24 (c)	Information about notional assets	29	Appendix A

Reporting Direction	Description	Relevant Directions	Location (Page, Appendix or Report)
24 (d)	Contribution rates calculated in accordance with direction 30	30	7, Appendix A
24 (e)	Contribution yields calculated in accordance with direction 31	31	7, Appendix A
24 (f)	Employer Contribution Rate calculated in accordance with direction 32	32	7, Appendix A

Direction 25 outlines the content requirements for the cost cap valuation report: note Direction 57 disapplies directions 25(k) to 25(o), 25(w) to 25(x) and 25(aa) to 25(dd)

Reporting Direction	Description	Relevant Directions	Location (Page, Appendix or Report)
25 (a)	Cost cap liabilities at the effective date	34	Appendix A
25 (b)	Prior value of the core cost cap fund	35	Appendix A
25 (c)	Core cost cap fund contribution rate	36	Appendix A
25 (d)	Core cost cap income	37	Appendix A
25 (e)	Cost cap benefits paid	38	Appendix A

Reporting Direction	Description	Relevant Directions	Location (Page, Appendix or Report)
25 (f)	Core cost cap notional investment returns	39	Appendix A
25 (g)	Past service technical immunity adjustment	40	Appendix A
25 (h)	Value of the core cost cap fund at the effective date	41	Appendix A
25 (i)	Change in the value of the core cost cap fund	42	Appendix A
25 (j)	Core cost cap past service cost	43	Appendix A
25 (k)	Cost cap future service cost	44	Appendix A
25 (l)	Cost cap contribution yield	45	Appendix A
25 (m)	Future service technical immunity adjustment	46	Appendix A
25 (n)	Cumulative future service technical immunity adjustment	47	Appendix A
25 (o)	Core cost cap cost of the scheme	48	28 and Appendix A

Reporting Direction	Description	Relevant Directions	Location (Page, Appendix or Report)
25 (p)	Prior value of the economic cost cap fund	60	Appendix A
25 (q)	Economic cost cap fund contribution rate	61	Appendix A
25 (r)	Economic cost cap income	62	Appendix A
25 (s)	Economic cost cap notional investment return	63	Appendix A
25 (t)	Value of the economic cost cap fund at the effective date	64	Appendix A
25 (u)	Change in value of the economic cost cap fund	65	Appendix A
25 (v)	Economic cost cap past service cost	66	Appendix A
25 (w)	Economic cost cap cost of the scheme	67	Appendix A
25 (x)	Total cumulative technical immunity adjustment	68	Appendix A
25 (y)	Statement that the core cost cap valuation results and economic cost cap valuation results have been calculated in accordance with the requirement of the Directions		4 and Appendix F

Reporting Direction	Description	Relevant Directions	Location (Page, Appendix or Report)
25 (z)	Summary of the regulations, Directions and professional standard applicable to the preparation of the cost cap valuation report		Appendix F
25 (aa)	Comparison of the core cost cap of the scheme with the employer cost cap	70	28 and Appendix A
25 (bb)	Comparison of the economic cost cap of the scheme with the employer cost cap		28 and Appendix A
25 (cc)	Notification to the responsible authority of a cost control mechanism breach		n/a
25 (dd)	Analysis of difference between the employer cost cap cost of the scheme and the core cost cap cost of the scheme		30

Appendix H:

Glossary 1 – General

Glossary 2 – Cost Control Mechanism

Glossary 3 – Judges Pension Scheme

Glossary 1 - General

CARE	CARE stands for Career Average Revalued Earnings and refers to a methodology whereby earnings over a member's working lifetime in the scheme are used in the calculation of their benefits in the reformed scheme.
Directions	A document published by HM Treasury and referred to in The Public Service Pensions Act 2013, which sets out the process and requirements for carrying out valuations, including the results which need to be disclosed. Directions were first published in 2014 and have been amended several times since then. The latest Directions, on which the results of this valuation are based, are **the Public Service Pensions (Valuation and Employer Cost Cap) Directions 2023**, as they apply at the date of signing.
Effective date	31 March 2020.
Employer Contribution Rate	The percentage of scheme members' pensionable salaries which employers are required to pay in order to: • meet the costs of future benefits accrued by active members • make good any deficit in the notional amounts set aside to cover benefits already built up. The result is heavily dependent on assumptions about future financial conditions and membership changes.
Implementation date	1 April 2024.
Implementation period	The period over which future accrual in the scheme is measured for the purposes of the Employer Contribution Rate. For the 31 March 2020 valuation the implementation period is 1 April 2024 to 31 March 2027.

Glossary 1 - General

Inter-valuation period	For the valuation with an effective date of 31 March 2020, the inter-valuation period is the four years from 1 April 2016 to 31 March 2020.
McCloud	McCloud refers to a legal judgment made in December 2018. The England and Wales Court of Appeal judgment upheld claims of age discrimination brought by some firefighters and members of the judiciary against 'transitional protection' rules. These rules determined the date on which some members would move between the legacy schemes and the reformed scheme. More information can be found on page 61.
Normal pension age	The age at which a member in normal health is entitled to unreduced benefits. This age varies between the schemes and is set out in Appendix C.
Notional assets	Notional amount of money, initially set as the value of all members' past service liabilities at a specific date (as set out in Schedule 1 of the Directions). It is updated at each valuation to take account of all actual scheme income and benefits paid, plus an allowance for notional investment returns.
Past service liabilities	The monetary amount assessed in today's terms, as being required to meet benefit promises (pensions, lump sums, dependants' pensions etc) that have been made to scheme members over their period of service prior to the effective date. For active members, these liabilities include allowance for future salary inflation and in-service benefit revaluation until the assumed date of cessation of pensionable service.
Pension increase	Public service pensions are increased under the provisions of the Pensions (Increase) Act 1971 and Section 59 of the Social Security Pensions Act 1975.

Glossary 1 - General

Pension revaluation	The rate at which the CARE pension is revalued each year a member is active.
Professional actuarial requirements	The professional requirements that we have complied with when completing this actuarial valuation include: 1. Technical Actuarial Standards: TAS 100 and TAS 300, issued by the Financial Reporting Council (FRC). 2. The Actuaries' Code, issued by the Institute and Faculty of Actuaries (IFoA). 3. The Civil Service Code. GAD is also accredited under the IFoA's Quality Assurance Scheme. More details can be found on our website.
Reformed and legacy schemes	The reformed scheme is the scheme that was set up in line with The Public Service Pensions Act 2013, and which came into force on 1 April 2015 (referred to as the 2015 Scheme in this report). All non-reformed schemes are known as legacy schemes. This terminology is used in the McCloud judgment.
SCAPE discount rate	SCAPE is short for the Superannuation Contributions Adjusted for Past Experience. It is the discount rate set by HM Treasury which is used when assessing the discounted value of pension payments from the unfunded public service pension schemes. It is currently based on OBR's forecast for long-term GDP growth.

Glossary 2 – Cost Control Mechanism

Cost cap benefits paid	Benefits paid during the inter-valuation period 1 April 2016 to 31 March 2020 from the 2015 Scheme (excluding any CARE benefits paid in respect of members who are in scope for McCloud remedy).
Cost cap ceiling	3% above the employer cost cap.
Cost cap contribution yield	The expected average contribution rate payable by members who are not eligible for McCloud remedy over the cost cap implementation period.
Cost cap corridor	The range of rates lying between the employer cost cap ±3%. If the cost cap costs of the scheme both lie outside of this corridor in the same direction, then a breach is deemed to have occurred.
Cost cap cost of the scheme	The rate which is compared to the **employer cost cap** at each valuation to determine whether the Secretary of State is required to consult on changes to the scheme. The cost cap cost of the scheme comes in two forms: 1) **Core cost cap cost of the scheme** – <u>excludes</u> the impact of changing long-term economic assumptions. 2) **Economic cost cap cost of the scheme** – <u>includes</u> the impact of changing long-term economic assumptions.
Cost cap floor	3% below the employer cost cap.

Glossary 2 – Cost Control Mechanism

Cost cap fund	The cost cap fund comes in two forms, core and economic. It is a notional amount of money, building up from 1 April 2015 when the 2015 scheme was introduced. The cost cap fund values at 31 March 2016 have been reconstructed in accordance with the latest Directions and have been estimated at 31 March 2020 using data at this date.
Cost cap fund contribution rate	The cost cap fund contribution rate comes in two forms, core and economic. It is the rate required to cover the cost of benefits accruing from 1 April 2016 to 31 March 2020. Consists of: 1) Expected cost of benefits accrued 2016 to 2020 plus 2) Cost cap past service cost at 2016 minus 3) Member contributions paid 2016 to 2020
Cost cap future service cost	The contribution rate required to cover the expected cost of benefits accrued by members during the cost cap implementation period.
Cost cap implementation date	1 April 2023.
Cost cap implementation period	The period over which future accrual in the scheme is measured for the purposes of the cost control mechanism. For the 31 March 2020 valuation the implementation period is 1 April 2023 to 31 March 2027
Cost cap income	The cost cap income comes in two forms, **core** and **economic**. Income received by the scheme, for example employee contributions. Employer contributions are also included, but these are set to the amount that would have been received if employer contributions were paid at the **core**, or **economic**, **cost cap fund contribution rate**.

Glossary 2 – Cost Control Mechanism

Cost cap liabilities	The value of the liabilities relating to benefits that have accrued in the reformed scheme as at 31 March 2020.
Cost cap notional investment returns	The cost cap notional investment returns comes in two forms, **core** and **economic**. Notional amount of money added to the **core**, or **economic**, **cost cap fund** representing the growth of the cost cap funds over time.
Cost cap past service cost	The cost cap past service cost comes in two forms, **core** and **economic**. It is the difference between the **cost cap liabilities** and the **core**, or **economic**, **cost cap fund** as at 31 March 2020, expressed as a percentage of pensionable pay.
Cost control mechanism	A risk-sharing arrangement that seeks to ensure a fair balance of risk between members of public service pension schemes and taxpayers regarding these scheme costs. It also aims to maintain value to members and provide stability and certainty of member benefit and contribution levels, with changes only being triggered by 'extraordinary, unpredictable' events. The mechanism will compare certain costs of the schemes (core and economic cost cap costs) to the JPS 2022 employer cost cap set in this valuation. If both these assessed costs have moved outside the cost cap corridor in the same direction, a breach of the mechanism is said to have occurred and the Lord Chancellor is required to consult on changes to the scheme to bring the costs back to the employer cost cap. See pages 5 and 27 for further information.
Cumulative future service technical immunity adjustment	An adjustment made to the core cost cap cost of the scheme to exclude the impact of changes to long-term economic assumptions (e.g. SCAPE rate) from the future service cost.

Glossary 2 – Cost Control Mechanism

Economic check	Assessment of whether the economic cost cap cost of the scheme (which includes the impact of changing long-term economic assumptions) breaches the cost cap corridor.
Employer cost cap	The NJPS 2015 scheme employer cost cap was originally the contribution rate, determined at the 2012 valuation, to cover the cost of benefits accruing over the implementation period 2015 to 2019, less expected member contribution payable during this same period. The employer cost cap can be thought of as the baseline cost or target cost of the scheme and is used as the comparator for the core cost cap cost and economic cost cap cost at the 2020 valuation. The JPS 2022 scheme employer cost cap is set at this valuation.
Future service technical immunity adjustment	The part of the Cumulative Future service technical immunity adjustment that is in respect of the impact of changes to long-term economic assumptions arising only since the previous valuation.
Past service technical immunity adjustment	An adjustment made to the core cost cap fund to exclude the impact of changes to long-term economic assumptions (e.g SCAPE rate).
Total cumulative technical immunity adjustment	The difference between the **core cost cap of the scheme** and the **economic cost cap of the scheme.**

Glossary 3 – Judges Pension Scheme

O’Brien and Miller	O’Brien and Miller refers to a series of legal judgments where the UK courts and tribunals found that a historic lack of pension and other specified benefits amounted to less favourable treatment of some fee-paid judicial office holders in comparison to salaried judges doing the same or broadly similar work. This led to a commitment by the Ministry of Justice to implement a retrospective remedy – a Fee-Paid Judicial Pension Scheme (‘FPJPS’).
O’Brien 1	The term ‘O’Brien 1’ refers to the 2013 Judgment which entitles eligible fee-paid judges to pension benefits in respect of service after 6 April 2000.
O’Brien 2	The term ‘O’Brien 2’ refers to the November 2018 Judgment which entitles eligible fee-paid judges to pension benefits in respect of service before 7 April 2000.
Miller	The term ‘Miller’ refers to the December 2019 Judgment which expands the number of fee-paid judges eligible for FPJPS benefits. In particular, to include Salaried judges active in 2013 which were originally out of scope of O’Brien 1.
JUPRA	The JUPRA (Judicial Pension and Retirement Act 1993 or 1993 scheme) was introduced from April 1995, providing benefits for the salaried judiciary. Similar to other legacy public sector pension schemes benefits have a fixed accrual for each year of service and linked to a members final salary at retirement.
NJPS 2015	A reformed Scheme, the New Judicial Pension Scheme (‘NJPS’) or ‘2015 Scheme’, was introduced from 1 April 2015. The main differences compared to the previous arrangements were to provide benefits on a career average basis with normal pension age linked to State Pension age, and it was tax registered.
FPJPS	The FPJPS (or 2017 scheme) was introduced from April 2017, with benefits backdated to provide a scheme for the fee-paid judiciary analogous to the 1993 scheme for salaried judiciary. The FPJPS has the same transitional arrangements as the other “pre-2015” schemes.
JPS 2022	A reformed Scheme, the Judicial Pension Scheme 2022 (‘JPS 2022’) or ‘2022 Scheme’, was introduced from 1 April 2022. Similar to the previous NJPS arrangements providing benefits on a career average basis with normal pension age linked to State Pension Age, however, with a more generous accrual rate and tax unregistered.