

May 2020

# **Reference of the PR19 final determinations: Response to Bristol Water's statement of case**

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## 1. Executive summary

### Our response to Bristol Water's statement of case

- 1.1 In reaching our final determination for Bristol Water,<sup>1</sup> we considered the company's business plan in line with our statutory duties. We are satisfied that our final determination ensures that the company has adequate funding to carry out its regulated business, including meeting its statutory and regulatory obligations, to deliver the outcomes within its final determination and thereby provide for the long-term resilience of its systems in the interests of current and future customers.
- 1.2 On 2 April 2020 Bristol Water provided us with a copy of its statement of case to the Competition and Markets Authority (CMA) in respect of its reference of the 2020-25 price controls for redetermination. The company provided a revised version of its statement of case on 17 April 2020 which unless stated otherwise is what we have reviewed.
- 1.3 In its statement of case, Bristol Water challenges a broad range of elements in its final determination which it groups into four areas: cost of capital, cost allowances, balance of risk and financeability. In each area, the company states that we have made a number of 'errors' in our final determination. We disagree with the company and explain in further detail why this is the case in the following chapters.
- 1.4 Bristol Water has stressed the areas where it agrees with the final determination, and seeks to present its challenge as a relatively confined one. However, the issues it has raised are numerous and wide-ranging. We consider that Bristol Water's proposed changes to the final determination would result in excessive returns to shareholders and would reward inefficiency at the expense of its customers.
- 1.5 We note that Bristol Water has raised a number of new issues in its statement of case which we highlight in Table 1.1.

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<sup>1</sup> Ofwat, '[PR19 Final Determinations: Bristol Water Final Determination](#)', December 2019.

**Table 1.1: New issues raised by Bristol Water in its statement of case**

New issue raised by Bristol Water	Ofwat commentary
<p><b>Cost of equity uplift.</b> Bristol Water requests a cost of equity uplift in its statement of case. Statement of case, pp. 63-68, paragraphs 239-256.</p>	<p>The company did not include an adjustment to the cost of equity in its business plans or representation on our draft determination, nor was this sought by any other company in the sector. We consider the company's rationale to be poorly evidenced and unconvincing. See chapter 6 below for more detail.</p>
<p><b>Increased funding of leakage in base costs.</b> The company requests an additional £13 million of funding for leakage activities in base costs. Statement of case, pp. 92-98, paragraphs 370-395.</p>	<p>The company did not submit any cost adjustment claim on an equivalent basis in its business plans or representation on our draft determination. We allowed Bristol Water's leakage enhancement request in full (£4.8 million). In its statement of case, the company does not present any analysis of its own cost data or leakage management activities in support of the additional allowance requested. See chapter 3 below for more detail.</p>
<p><b>Benchmark catch up efficiency challenge.</b> Bristol Water requests a review of our approach to using the fourth ranked company in water to set the catch up efficiency challenge for the sector. Statement of case pp. 98-105, paragraphs 396-428.</p>	<p>We have been clear that evidence shows that the upper quartile company no longer represented a stretching enough challenge for the sector, particularly in the light of better information companies revealed on their efficient costs as a result of new cost sharing incentives. This justifies the move to a more stretching challenge using the fourth ranked company in water. Eight out of 17 companies are still forecasting more efficient costs than our efficient benchmark, which indicates there is significant scope for outperformance of our allowances. See chapter 3 below for more detail.</p>
<p><b>Growth.</b> Bristol Water does not agree with the growth adjustment we made at final determination. Statement of case, pp. 117-121, paragraphs 472-495.</p>	<p>The company appears to have misunderstood how we calculate and apply the growth adjustment. See chapter 3 below for more detail.</p>
<p><b>Licence fee cap.</b> Bristol Water is asking for an adjustment to its cost allowance to account for a proposed industry consultation on a licence fee cap increase. Statement of case, pp. 140-142, paragraphs 578-588.</p>	<p>It is inappropriate of Bristol Water to request an adjustment. The consultation on the proposed licence fee cap increase is not due to take place until the second half of 2020. The proposal does not relate to an automatic increase in the licence fee, but rather to an increase in the cap. See chapter 3 below for more detail.</p>

1.6 The first two items in the above table (cost of equity uplift and increased funding of leakage in base costs) raise a particular concern. Bristol Water are not putting forward new arguments to support points which it has previously

sought to make (as Bristol Water does in many other places), but are raising entirely new claims. The disputing companies of course have a statutory right to a redetermination, and to seek to put forward arguments in support of its points. What companies should not be doing, however, is using the reference process as a forum in which to ask the CMA to reach a first determination on points which could have been raised during PR19 with Ofwat, but were not.

- 1.7 Ofwat respectfully suggests that this is not an appropriate or even proper use of the CMA redetermination process. There is a risk, if this approach to the reference process is allowed, that companies may in the future see the CMA as an opportunity for a complete re-think and to run points which should have been raised from the outset. As well as being at least arguably an abuse of process that would surely have undesirable consequences for the CMA in terms of managing references which are already imposing a heavy burden on the CMA as well as on Ofwat.
- 1.8 We summarise below what was included in our final determination for Bristol Water, and outline the key issues that the company has raised in its statement of case.

## Our determination for Bristol Water

- 1.9 Our final determination for Bristol Water allowed **wholesale totex** of £411.3 million, which includes £29.9 million to invest in improvements to service, resilience and the environment. We consider that Bristol Water's wholesale totex allowance forms part of an in the round package that is stretching but achievable, and is set at a level that ensures that customers only pay for efficient costs.
- 1.10 Based on our benchmarking analysis, we assessed Bristol Water's **residential retail** cost proposals as efficient. Our overall approach rewarded efficient business plans. Therefore we allowed an expenditure allowance of £50.8 million, which was £0.8 million more than the company asked for.
- 1.11 Our final determination allowed £553.3 million of **revenue**, across all price controls, that Bristol Water can recover from its customers. We set an **allowed return** of 2.96% (in CPIH terms, 1.96% in RPI terms) which we consider provided a reasonable return for an efficient company based on the market evidence.

- 1.12 We set stretching **performance commitments** with incentives to deliver for customers and the environment based on company and sector evidence. These included a 6% reduction in per capita consumption by 2024-25, 21% reduction in leakage (on a three year average basis) by 2024-25 and a 59% decrease in water supply interruptions to five minutes by 2024-25. Our final determination is intended to be stretching but achievable for companies to deliver improved levels of service in 2020-25.
- 1.13 We included a notified item to cover changes to the **Canal & River Trust** charge levels for the period from 1 April 2020 to address uncertainty about potential outcome from an arbitration process between Bristol Water and the Canal & River Trust. This was added at the request of the company, and was based on the company's proposed uncertainty mechanism.
- 1.14 Our final determination reduced Bristol Water's **customers' average bills** by 14.8% in real terms during the 2020-25 period. After allowing for inflation, we expect bills to fall slightly by 2025.

## **Our determination in context**

- 1.15 Bristol Water's performance against its outcome delivery incentives has led to **underperformance penalties in 2015-20**, reflecting a poor level of service in areas that Bristol Water is able to influence or control.<sup>2</sup> It is currently delivering **below average levels of service to its customers**, and demonstrates little improvement from 2017-18. In 2018-19 it achieved fewer than half of its performance commitments, including leakage and water supply interruptions, and is a bottom quartile performer on water quality contacts.<sup>3</sup> While some of the poor performance was as a result of adverse weather conditions, we believe that it is the responsibility of the water sector as whole to ensure that it is resilient for adverse weather conditions. This includes improving areas such as emergency planning, preparation, response, communication and payment of compensation. We note that the company is forecasting an improvement in some of the key areas of performance as a result of actions it has taken.
- 1.16 In our 'Putting the sector in balance position statement' in 2018,<sup>4</sup> we introduced a gearing outperformance mechanism. This set out our expectation that companies with **gearing levels** materially above our notional assumption of 60% should share the benefits with customers. Companies with higher gearing

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<sup>2</sup> Bristol Water – Annual performance report 2018-19, July 2019, pp. 214-267.

<sup>3</sup> Ofwat, '2018-19 Service Delivery Report', October 2019, pp. 12-19.

<sup>4</sup> Ofwat, 'Putting the sector in balance: position statement on PR19 business plans', July 2018.

levels have a reduced ability to absorb financial shocks, reduced flexibility to adapt to regulatory and wider market changes and heightened risk to financial resilience. Bristol Water reported gearing of 64.6% at 31 March 2019. It forecast gearing of 68% at 31 March 2021 and 67.9% at 31 March 2025 in its business plan. At the time of our final determination, the company had a corporate family **credit rating** of Baa1 (negative) from Moody's. In March 2020 the company was downgraded to Baa2 (negative) by Moody's in part due to the uncertainty and delay associated with the CMA reference.

- 1.17 For the period 2000-01 to 2018-19, Bristol Water has averaged a 9.4% **dividend as a percentage of the equity component of the RCV** for that period. For the period 2015-19 Bristol has paid out £24.9 million in dividends. The company proposes a base dividend yield of 3.4%, with a 0.9% per annum real growth based on the company's actual structure.
- 1.18 In our 'Putting the sector in balance position statement', we set out our expectations that companies should demonstrate how **dividend policies** reflect performance delivery for customers. In our final determination we identified a number of areas where Bristol Water's proposed dividend policy fell short, and made clear that we expect greater transparency from the company when reporting on dividends paid over 2020-25 in its annual performance report.<sup>5</sup> We provide further detail on the company's actual financial structure and present information on the company's historical dividend payments and credit ratings in chapter 2 of our 'Risk and return - common issues' document.
- 1.19 In the first four years of the 2015-20 price control Bristol Water has outperformed against its cost allowance by 4.2%.<sup>6</sup> However based on the latest data provided by the company in its representation on our draft determination in August 2019, it is forecasting to slightly underperform for the 2015-20 price control. Historically **Bristol Water's performance against its allowance has varied**. It has outperformed against its allowance in 2000-05 (3.7%) and underperformed against its allowance in 2005-10 (0.6%) and 2010-15 (5.2%<sup>7</sup>). The company's cost allowances in 2010-15 and 2015-20 were, of course, set in the Competition Commission and CMA redeterminations.

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<sup>5</sup> Ofwat, 'PR19 Final Determinations: Bristol Water Final Determination', December 2019, pp. 80-81.

<sup>6</sup> Ofwat, '2018-19 Service Delivery Report', October 2019, p. 7.

<sup>7</sup> Note we have reviewed our calculation of totex performance since our submission to the CMA on 19 March 2020. This has resulted in a change in our view of company totex performance in 2010-15. We include the Notified Index in our baseline view of total capex adjusted for logging up, down and shortfalls contained in the final Capex Incentive Scheme (CIS) models. We exclude transition spend in 2014-15 from actual total capex which is also based on the final Capex Incentive Scheme (CIS) model figures. We include 2014-15 transition spend within the totex reconciliation for 2015-20.

## Meeting our duties in the round

- 1.20 In reaching our final determination, we are satisfied that we acted in accordance with our statutory duties in the round. We have ensured that the company has adequate funding properly to carry out its regulated business, including meeting its statutory and regulatory obligations, and to deliver the outcomes within its final determination.
- 1.21 We set out the duties, and provide more detail on how we complied with them, in chapter 2 below and in chapter 3 of our 'Introduction and overall stretch' document. In particular, we explain why **the points made by Bristol Water are in truth not hard-edged questions of law, but rather disagreements as to the merits of decisions that Ofwat made in its final determinations**. We address the ways in which Bristol Water wrongly tries to present some of its arguments as breaches of duty in summary form in chapter 2 below, and further develop those points in the following chapters of this document.

## Key issues for Bristol Water

- 1.22 We set out below the key issues raised by Bristol Water in its statement of case, and in its presentation to the CMA on 15 April 2020, and summarise our response to each. We cover these issues in further detail later in this document and in our accompanying documentation, and indicate this below where appropriate.
- 1.23 Bristol Water asked Ofwat to refer its previous two price control determinations to the **Competition Commission in 2009 and to the CMA in 2014**. In both cases, the Competition Commission and the CMA found that Bristol Water:
- had significantly overstated the level of costs, including the efficient level of base costs and claims for enhancement spending, such that it was either not required or efficient; and
  - had sought excessive allowed returns in the interests of shareholders and at the expense of customers.
- 1.24 There are a number of recurring issues that the company has included in its most recent statement of case. We have considered the outcome of the Competition Commission and CMA redeterminations and have evolved our price control approach. Since the 2015 redetermination, we have extensively engaged and collaborated with the sector to develop the PR19 framework and methodology.



## Allowed return

- 1.25 Our final determination set an allowed return of 2.96% (in CPIH terms, 1.96% in RPI terms). Bristol Water considers the **cost of capital parameters** are not justified based on the evidence, and claims our final determination is compromised by errors relating to setting the total market return, the risk free rate, asset beta, debt beta and the ratio of embedded to new debt.<sup>8</sup> The company proposes a sector allowed return (before small company uplifts) of 5.39% in nominal terms (2.31% in RPI terms).<sup>9</sup> This is slightly below its equivalent proposal of 2.40% from its business plan.
- 1.26 **Our allowed return provides a reasonable return for an efficiently financed company**, based on the latest evidence on prevailing financing conditions over 2020-25. This is supported by data on listed company share prices following our final determination, which implies investors expect outperformance on the cost of capital as well as other elements. Recent evidence on the risk-free rate, cost of new debt, and equity beta supports our view that the allowed return is not understated.
- 1.27 **Our approach is balanced and consistent with previous price reviews.** For estimating the cost of equity we used the established capital asset pricing model (CAPM). Our index-based approach to setting the allowed cost of debt is also similar to that used for PR14. For less observable parameters (total market return, equity beta) we have reflected uncertainty and company views by considering a wide range of evidence and selecting from the middle of the plausible range. For more observable parameters (risk-free rate, cost of debt) we have been guided by more recent market data, on the grounds that evidence for mean reversion or convergence to equilibria is weak. We provide more detail on this in chapter 6 below and in chapter 3 of our 'Risk and return – common issues' document.

## Company specific adjustments

- 1.28 Bristol Water argues that it faces a higher cost of finance than larger companies, and says a **company specific adjustment to the allowed return** is necessary to allow it to earn a reasonable return on capital and finance its business plan for 2020-25. In addition to a sector allowed return of 5.39%, the company proposes an uplift of 37 basis points to the allowed cost of debt and 95 basis points to the allowed cost of equity. This results in an overall proposal

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<sup>8</sup> Bristol Water, 'Statement of Case', April 2020, p. 2, paragraph 7, bullet point 3.

<sup>9</sup> Inferred from Bristol Water, 'Statement of Case', April 2020, p. 5.

for an allowed return of 6.12%,<sup>10</sup> which is considerably higher than our final determination figure of 5.02%.

- 1.29 **The company's higher cost of debt is a function of its financing choices, not its size.** As a water only company, Bristol Water is smaller than the other disputing companies. But with an RCV of £530 million, it is not a small company in absolute terms, and was the largest of the companies requesting a company specific adjustment in PR19. The company's cost of embedded debt is also lower than three water and sewerage companies. Bristol Water's issue with our cost of embedded debt allowance relates to its decision to issue significant quantities of long-dated debt in the early 2000s. Though for many years following issuance, the interest cost of this debt was significantly below the regulatory allowance. Subsequent falls in market interest rates and the ensuing recalibration of our benchmarks mean that this is no longer the case.
- 1.30 **Shareholders, not customers, should hold the risk of management financing choices.** The tenor and quantum of issued debt instruments is a management choice, and our regulatory framework at the time of issuance did not constitute a guarantee that the company would be able to pass through the costs of its issuance for the term of these instruments. In the context of the company's decision to issue long-dated debt and its subsequent references to the CMA, we are concerned at the prospect of an arrangement whereby companies such as Bristol Water seek to reap all of the upside risk of their debt issuance strategy, while seeking to assign downside risks to its customers.
- 1.31 **Bristol Water's proposed uplifts are overstated, unconvincing, and poorly-evidenced.** At final determination, we estimated a 33 basis point uplift to the allowed cost of debt as appropriate for a qualifying small company based on our methodology for considering requests for such uplifts. However, more recent analysis suggests this figure is an overstatement. Any uplift should be based on the additional costs incurred due to the company's small size. As tenor of issuance is a management choice and not a constraint imposed by small size, it follows that our estimate should control for the impact of tenor on yield. Once tenor is controlled for, analysis of spread-to-benchmark gilt at issuance suggests a small size premium on the cost of debt of only around 5 basis points, rather than the 37 basis points the company is seeking.
- 1.32 Bristol Water claims that its relatively high operational gearing compared to the listed water and sewage companies exposes it to increased risks and justifies a 13% uplift to its view of the asset beta.<sup>11</sup> This drives a cost of equity uplift of 95

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<sup>10</sup> Bristol Water, 'Statement of Case', April 2020, p. 5, paragraph 24, table of adjustments.

<sup>11</sup> Bristol Water, 'Statement of Case', April 2020, p. 3, paragraph 17.

basis points. **We dispute the need for any cost of equity uplift.** The measures used to support its argument that it faces higher risk do not adequately measure underlying risk exposure, and could be used to argue that the company has relatively low risk exposure. Empirically there is **weak evidence that small water only companies are more exposed to risks.** We do not observe systematically lower levels of gearing for water only companies or systematically lower market-to-asset ratios in equity transactions. Even if it were true that the company's higher operational gearing implies a higher asset beta, the appropriate response would be to lower the notional gearing level on which the determination is based, not adjust the cost of equity.

- 1.33 **It is not in customers' interests to fund Bristol Water's higher cost of finance.** In a competitive market (for which any price control must operate as a proxy) small companies cannot expect to pass higher size-related financing costs onto its customers, unless it either provides a service whose higher quality compensates for its increased cost, or it finds offsetting efficiencies elsewhere. In this context, customers of regulated monopolies are entitled to expect that any increased cost allowance due to a particular company's corporate structure is adequately compensated for by efficiency and/or quality of service benefits provided by that company.
- 1.34 On three separate occasions during the PR19 process, we reviewed evidence provided by Bristol Water to assess whether the company provides benefits which adequately compensate for the additional cost of providing its requested uplift. Our conclusion following all three assessments was that it does not. Reviewing the company's statement of case concerning its claimed benefits,<sup>12</sup> and the significantly increased cost of its requested uplift, our confidence in our final determination conclusion is greatly strengthened. We provide more detail on these issues in chapter 6 below.

## **Cost allowances**

- 1.35 Bristol Water claims that **Ofwat failed to account for differing levels of service in the base models.** The company claims this results in its costs being understated by £14-15 million.<sup>13</sup>
- 1.36 The company attempts to account for service quality level by reallocating over £1.5 billion of forecast enhancement costs to base models, **mixing historical and forecast data**, which is contrary to any principle of robust modelling. The

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<sup>12</sup> Bristol Water, 'Statement of Case', April 2020, pp. 44-54, paragraphs 154-205.

<sup>13</sup> Bristol Water, 'Statement of Case', April 2020, pp. 85-92, paragraphs 341-369.

approach taken by the company is **not credible**, and we do not find any additional evidence that the company's efficient allowance is understated. We provide more detail on this in chapter 3 below and chapter 3 of our 'Cost efficiency – common issues' document.

- 1.37 Bristol Water argues that an **additional £13 million is required to maintain its 2019-20 leakage levels**. The company claims Ofwat's base cost models make insufficient cost allowance for its leakage expenditure.<sup>14</sup>
- 1.38 This is a new claim. Bristol Water did not submit any cost adjustment claim on an equivalent basis in its business plans or representation on our draft determination, despite the numerous occasions it had. We have set ambitious targets to the sector on leakage to achieve a 15% reduction by 2025, reflecting the sector's stagnation and poor performance over the past 20 years. For Bristol Water, we made an additional **allowance of the company's requested leakage enhancement expenditure of £4.8 million in full**. The company does not validate the new £13 million request with analysis of its own cost data or leakage management activities. We provide more detail on this in chapter 3 below and in chapter 5 of our 'Cost efficiency – common issues' document.
- 1.39 Bristol Water argues that Ofwat should have set its **catch up efficiency challenge** at the upper quartile company, rather than the fourth ranked company.<sup>15</sup>
- 1.40 We have set the benchmark at a comfortably achievable level. There was clear evidence that the upper quartile company was no longer providing a stretching enough challenge, particularly in the light of better information companies revealed on their efficient costs as a result of new cost sharing incentives. It would be wrong of us not to act on the additional evidence, as it is customers paying for these incentives. **Eight out of 17 companies are still forecasting more efficient costs than our efficient benchmark**. This suggests there is significant scope for outperformance of our cost allowance. We provide more detail on this in chapter 3 below and our 'Cost efficiency – common issues' document.
- 1.41 Bristol Water argues that Ofwat's choice to set **productivity improvements at 1.1% each year is unjustified**, and that the **decision to apply frontier shift to unmodelled costs is unprecedented**.<sup>16</sup>

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<sup>14</sup> Bristol Water, 'Statement of Case', April 2020, pp. 92-98, paragraphs 370-395.

<sup>15</sup> Bristol Water, 'Statement of Case', April 2020, pp. 98-105, paragraphs 396-428.

<sup>16</sup> Bristol Water, 'Statement of Case', April 2020, pp. 105-113, paragraphs 429-454.

- 1.42 Our **frontier shift of 1.1%** per year is based on a wide range of evidence is based on productivity growth from comparator sectors, is **consistent with decisions other regulators have taken and should be applied to all base costs** as it has been derived from all costs from comparator sectors. We provide more detail on this in chapter 3 below and in chapter 7 of our 'Cost efficiency – common issues' document.
- 1.43 Bristol Water argues that Ofwat failed to account for **real inflation in energy costs** when considering **input prices**.<sup>17</sup>
- 1.44 **We do not consider a real price adjustment (i.e. an allowance above inflation) is appropriate** as it will weaken the incentives of companies to manage energy price risk. This is because there is mixed evidence of a historical wedge between energy prices and inflation, energy costs are already partially reflected in CPIH indexation, energy costs are partially under management control and energy price forecasts have proved unreliable. We provide more detail on this in chapter 3 below and in chapter 8 our 'Cost efficiency – common issues' document.
- 1.45 Bristol Water raises a number of issues with our approach to assessing **growth expenditure and developer services costs**, such as the inclusion of growth costs in wholesale base models, the use of Office for National Statistics (ONS) household projections, the growth adjustment made at final determination and the application of an efficiency challenge on grants and contributions.<sup>18</sup>
- 1.46 It is **appropriate to model growth together with base expenditure** due to the similar characteristics which these costs share. Dealing with population growth is a routine part of water companies' business, as it is in many other sectors. ONS is an independent and widely recognised source for population projections, and **its forecasts are appropriate to protect customers against the risk of over-forecasting** population growth in the short term. We find that Bristol Water has **fundamentally misunderstood** our approach to setting the growth adjustment, as well as some aspects of our approach to developer services costs. We provide more detail on this in chapter 3 below and in chapter 4 of our 'Cost efficiency – common issues' document.
- 1.47 Bristol Water argues that the £2.7 million disallowance for its £8.6 million **Canal & River Trust claim** should be allowed by the CMA, as Bristol Water is unique

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<sup>17</sup> Bristol Water, 'Statement of Case', April 2020, pp. 113-117, paragraphs 455-471.

<sup>18</sup> Bristol Water, 'Statement of Case', April 2020, pp. 117-121, paragraphs 472-495.

and an outlier in terms of the volume of raw water it pays to a third party provider.<sup>19</sup>

- 1.48 We accept that Bristol Water is unique in the proportion of raw water it sources by means of a contractual arrangement with a third party provider. However, **Bristol Water simply has a different procurement model for sourcing its water resources compared to other companies.** This fact alone does not explain why its water resources costs are higher than other companies. Other companies incur alternative costs for owning water resources assets that Bristol Water does not incur, or incurs only at a lower level. **Bristol Water does not demonstrate** that the third party payments are the cause for its high water resources costs.
- 1.49 The company has not provided any additional convincing evidence in its response to the CMA. Our final determination allowance for this claim was an acknowledgement as part of our in the round assessment that the company challenged its own costs considerably throughout the price review process. However, the evidence the company presented on its understanding of its water resources assets and related costs and efficiencies was poor. **If considered in isolation we would recommend this claim is disallowed in its entirety** as it is not justified on the basis of evidence presented. We provide more detail on this in chapter 3 below.
- 1.50 Bristol Water argues that the **enhancement opex implicit allowance should have been capped** at the value of enhancement opex included in its 2020-25 plan.<sup>20</sup>
- 1.51 The value of the enhancement opex implicit allowance is a reflection of the proportion of enhancement opex included in the historical period of our wholesale base models, and does not represent an assessment of the enhancement opex the company included in its 2020-25 plan (which we assess separately). Therefore **it would be inappropriate to apply such a cap.** We provide more detail on this in chapter 3 below.
- 1.52 Bristol Water argues that it was wrong of Ofwat to apply a **further efficiency challenge in enhancement** in its shallow dive assessments (i.e. light touch assessments) in the absence of a detailed efficiency assessment, and that it was wrong to calculate the efficiency challenge using base costs.<sup>21</sup>

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<sup>19</sup> Bristol Water, 'Statement of Case', April 2020, pp. 121-133, paragraphs 497-537.

<sup>20</sup> Bristol Water, 'Statement of Case', April 2020, pp. 133-136, paragraphs 538-554.

<sup>21</sup> Bristol Water, 'Statement of Case', April 2020, pp. 136-140, paragraphs 555-577.

- 1.53 We consider it is **proportionate to apply such efficiency challenge in low materiality areas**, where we do not require companies to provide substantial evidence of the efficiency of the proposed investments. Because **we expect companies to apply the same level of efficiency to all elements of their business plan**, it is reasonable to derive the efficiency challenge from the company's efficiency on base costs. Because we cap the efficiency challenge at 10%, the efficiency challenge we applied was a conservative estimate. We provide more detail on this in chapter 3 below.
- 1.54 Bristol Water states that Ofwat's **proposal to increase its licence fee cap was unexpected** and that a corresponding **allowance should have been made in the final determination** for this increase.<sup>22</sup>
- 1.55 We do not consider it appropriate for Bristol Water to request an adjustment to its allowance. As we informed all companies in writing, they will have the opportunity to comment on the proposed licence fee cap change in the consultation we will be running in the second half of 2020. In addition, the **proposal does not relate to an automatic increase in the licence fee, but rather to an increase in the cap**. We have been clear with companies that the cap increase is a limit and is not a target which Ofwat aims for in agreeing its budget with Government. We provide more detail on this in chapter 3 below.

## Balance of risk

- 1.56 Bristol Water argues that Ofwat has set **excessively high underperformance outcome delivery incentive (ODI) rates for its mains repairs and per capita consumption performance commitments**. The company argues that Ofwat has ignored its customers' preferences in setting these ODI rates.<sup>23</sup>
- 1.57 **We disagree with the company's claim** that we have set excessively high underperformance ODI rates for these two performance commitments. We find some (although not all) of the company's customer research to be poor quality and vulnerable to bias. We have **used the high-quality elements** of the **company's customer research alongside industry comparative data**, as well as recognising areas of poor past performance when setting these ODI rates. We provide more detail on this in chapter 4 below and in chapter 12 of our 'Outcomes – common issues' document.

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<sup>22</sup> Bristol Water, 'Statement of Case', April 2020, p. 7, paragraph 32, bullet point 5.

<sup>23</sup> Bristol Water, 'Statement of Case', April 2020, pp. 145-152, paragraphs 601-626.



- 1.58 Bristol Water argues that Ofwat has **not correctly estimated its exposure to ODI risk under P10 and P90 performance scenarios**. The company presents its own assessment of ODI risk exposure, which suggests greater downside risk than Ofwat's final determination assessment.<sup>24</sup>
- 1.59 **We disagree** with the company's position. We recognise that risk is inherently difficult to assess, but consider our analysis is likely to be more accurate than the unadjusted figures provided by the company. **Our assessment of ODI risk is informed by the company's view of P10 and P90 performance**, but also makes use of the different ODI risk ranges proposed by other companies and recognises that companies have historically overstated downside ODI risk. We provide more detail on this in chapter 4 below and in the annex of our 'Outcomes – common issues' document.
- 1.60 Bristol Water considers our determination contains an error by imposing an **asymmetric totex cost sharing mechanism** which means it must bear 60% of any cost over-runs but retain only around 40% of any underspend.<sup>25</sup>
- 1.61 Asymmetric cost sharing rates were introduced to simplify the menu incentive applied at PR14. They were designed to **maintain strong incentives on companies to deliver stretching cost estimates in business plans** in the context of asymmetric information and to provide ongoing incentives for cost efficiency. Asymmetric cost sharing is a long standing tool used by Ofwat and in other regulated sectors.
- 1.62 Bristol Water's arguments on cost sharing rates need to be considered in the light of the wider aims of the incentive regime and the impacts over the long term. Our approach recognises that companies benefit from an asymmetry of information in preparing business plans. It is therefore important to incentivise companies to put forward stretching business plans and to deliver efficient services to customers. Bristol Water had several opportunities throughout the review process to convince us that its requested costs were efficient and necessary, and to convince us that we should apply its performance commitment levels and ODI incentive rates.
- 1.63 Recent reviews of the sector highlight the need for regulators to explicitly account for information asymmetry.<sup>26</sup> Adjusting cost sharing rates at this stage

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<sup>24</sup> Bristol Water, 'Statement of Case', April 2020, Annex 9, pp. 240-250.

<sup>25</sup> Bristol Water, 'Statement of Case', April 2020, p. 8, paragraph 38.

<sup>26</sup> For example, the National Infrastructure Commission (NIC) stated in 2019 that regulators 'should take direct account of information asymmetries' when setting cost allowances and the allowed return on capital. See National Infrastructure Commission, 'Strategic investment and public confidence', October 2019.



of the process may well undermine incentives for companies to challenge themselves on efficiency at future price reviews. We provide more detail on this in chapter 6 below and in chapter 2 of our 'Risk and return – common issues' document.

1.64 Bristol Water considers our determination contains an **error by imposing a default gearing outperformance mechanism**.<sup>27</sup>

1.65 The gearing outperformance mechanism was introduced with an expectation that companies with **gearing levels materially above our notional assumption should share the benefits with customers**. Where companies adopt high levels of gearing, they may increase risk to equity investors and reduce financial resilience, they also may transfer some risk to customers and potentially taxpayers, in the event that a company fails. We provide more detail on this in chapter 6 below and in chapter 5 of our 'Risk and return – common issues' document.

## Financeability

1.66 Bristol Water considers the effect of the decisions in our final determination mean that on both the basis of a notional and an actual financial structure, the company **cannot reasonably be expected to maintain an investment grade credit rating**, deliver reasonable returns or have the financial resilience to weather even minor shocks.<sup>28</sup>

1.67 Our **final determination provides Bristol Water with a reasonable return if it meets the cost allowances and performance commitments** set out in our final determination on the basis of the notional structure. The allowances and performance commitments are set on the basis of a notional, efficient company and are intended to be stretching but achievable. The evidence since our final determination supports our view that a company with the notional capital structure could maintain a credit rating that is two notches above the minimum investment grade.

1.68 Under its actual structure, Bristol Water's headroom is eroded because of underperformance adjustments for past performance and as a result of its actual financing arrangements. Customers should not bear increased costs to provide increased headroom for costs that the company and its investors must

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<sup>27</sup> Bristol Water, 'Statement of Case', April 2020, p. 8, paragraph 39.

<sup>28</sup> Bristol Water, 'Statement of Case', April 2020, p. 2, paragraph 8.

bear. We provide more detail on this in chapter 6 below and in chapter 4 of our 'Risk and return – common issues' document.

- 1.69 Bristol Water considers our **assessment of financeability was inadequate**. It says the final determination included a financeability error such that we failed to ensure the final determination 'was financeable for a relevant notional (small water only) financial structure for a company like Bristol Water'.<sup>29</sup>
- 1.70 As we have already said **Bristol Water is not a small company** in absolute terms. Even, if the CMA were to consider there is insufficient headroom in its financeability assessment for the notional capital structure of Bristol Water, it could choose to adopt a lower level of notional gearing, increase the proportion of index linked debt or restrict dividends for the notional company structure.
- 1.71 Bristol Water's claims that relate to the financeability of the **actual capital structure are matters for the company and its investors**. We provide more detail on this in chapter 6 below and in chapter 4 of our 'Risk and return – common issues' document.

## Conclusion

- 1.72 In our final determination we took into account the evidence submitted by the company and accepted its proposals where they were justified, supported by sufficient evidence and in line with comparative analysis across the industry. However, where the company's proposals were not adequately supported, we challenged assumptions and arrived at our own view. We are confident that **our decisions** are in accordance with our statutory duties.
- 1.73 In their statements of case, companies do not have an incentive to draw attention to instances when we may have made decisions which lean in their favour. This creates a risk that aspects of our determination which were comparatively generous, and make the determination appropriate in the round, will lose the prominence they need amidst the detail of the numerous issues raised by the company. We encourage the CMA to consider Bristol Water's redetermination in the round.

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<sup>29</sup> Bristol Water, 'Statement of Case', April 2020, p. 2, paragraph 9.

## Structure of our response to Bristol Water's statement of case

- 1.74 This executive summary is structured so as to address Bristol Water's points in the order in which the company has raised them. The remainder of the document has been structured broadly to group issues in the way that Ofwat has done in the final determination. Chapter 2 addresses more general issues, before chapters 3 – 6 address securing cost efficiency (3), delivering outcomes for customers (4), overall stretch (5) and aligning risk and return (6).
- 1.75 We provide a summary table at the beginning of each of chapters 3 – 6 listing Bristol Water's arguments, and indicate where these are dealt with in this document and where relevant in other documents which form part of our response. We hope that this will provide the CMA with the most helpful way in which to navigate through and group together the issues Bristol Water has raised. We also seek to provide the CMA with a consistent structure across our responses to the four disputing companies.

### Additional comment

- 1.76 As we submit our response we continue to recognise the ongoing situation regarding Covid-19. We note that Bristol Water acknowledges its potential impacts on the redetermination process in its statement of case.<sup>30</sup> Though the effects of the pandemic on the water sector and the wider economy remain uncertain, we are working hard to understand the impacts and to support companies in their efforts to protect customers. For further details on our position on Covid-19, see chapter 1 of our 'Introduction and overall stretch' document.
- 1.77 Recognising the fast-moving nature of the crisis, we would welcome the opportunity to make further representations on the issue as the impacts become clearer. We also continue to welcome any discussions around procedural impacts should the CMA deem them necessary.

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<sup>30</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 200, paragraph 38.

## 2. General issues

### Meeting our duties in the round

2.1 Our statutory duties require us, in summary, to set price controls in the manner we consider is best calculated to:<sup>31</sup>

- further the **consumer objective** to protect the interests of consumers, wherever appropriate by promoting effective competition;
- secure that **companies properly carry out their functions**;
- secure that the companies are able (in particular, by securing reasonable returns on their capital) to **finance the proper carrying out of those functions**; and
- further the **resilience objective** to secure the long term resilience of companies' systems and to secure that they take steps to enable them, in the long term, to meet the need for water supplies and wastewater services.

2.2 These are our primary duties. They are equal in weight and we must satisfy them all in the decisions we make. Subject to those duties, we also have duties to, among other things, promote economy and efficiency and contribute to sustainable development.<sup>32</sup>

2.3 We must also determine price controls for Bristol Water in accordance with the statement of strategic priorities and objectives for Ofwat from the UK Government.<sup>33</sup>

2.4 In reaching our final determination we are satisfied that we acted in accordance with our statutory duties and that our final determination ensures that the company has adequate funding to properly carry out its regulated business, including meeting its statutory and regulatory obligations, and to deliver the outcomes within its final determination. In chapter 3 of our 'Introduction and overall stretch' document we set out in more detail what the duties comprise and how, in our submission, they are to be interpreted. This includes our response to the assertions made by Bristol Water and the other disputing water

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<sup>31</sup> Section 2(2A) of the Water Industry Act 1991.

<sup>32</sup> Section 2(3) of the Water Industry Act 1991.

<sup>33</sup> UK Government, '[The government's strategic priorities and objectives for Ofwat](#)', September 2017. We set out more detail on how the PR19 final determinations delivered the UK Government's strategic priorities in [UK Government priorities and our 2019 price review final determinations](#), December 2019.

companies about the effect of the financing duty.<sup>34</sup> We also address there the main common issues which the disputing companies wrongly seek to portray as raising a breach of duty. These are:

- The duties and strategic priorities;
- Time frame (short term versus long term);
- Prioritisation of objectives (consumer versus resilience);
- Cost allowance versus outcomes;
- The financing duty and financeability; and
- The role of customer preferences.

2.5 We do not consider that it is helpful or accurate to characterise each such disagreement as a 'hard-edged' question about whether we have failed to meet our statutory duties. The reality is that these are **simply disagreements as to the merits of decisions that Ofwat made in its final determinations**. The decisions in question were taken in the light of all of the circumstances (including our experience of the sector and the evidence submitted to us), and as part of the balance that we struck between various interests and policy considerations; in short they were the result of an exercise of discretion.

2.6 The CMA, too, will be exercising its discretion in a way it considers is best calculated to meet the statutory duties and accords with the UK Government's strategic priorities and objectives. The CMA will have before it information that was not available to us at the time of our final determinations, and will have to take that information into account. It may be that the CMA, after considering all of the information and circumstances, reaches a different view on certain points to that which we reached or decides to strike a different overall balance. That is simply a reflection of the nature of the many (and complex) decisions that are taken in reaching a final view on each company's price controls. It does not detract in any way from the fact that we have given careful and conscientious consideration to our statutory duties and are confident that we have fulfilled all of them.

2.7 All of Bristol Water's arguments in relation to our statutory duties essentially relate to financeability, and are in turn founded on disagreements about individual elements of the decisions that Ofwat has made (which it refers to as errors). In particular, Bristol Water argues that 'it is clear that Ofwat has failed to meet its finance duty when setting the final determination for Bristol Water'<sup>35</sup> (original emphasis removed) on the grounds that a proper financeability assessment would, in its opinion, have led to adjustments including allowing for

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<sup>34</sup> Bristol Water, 'Statement of Case', April 2020, Annex 2, pp. 179-181.

<sup>35</sup> Bristol Water, 'Statement of Case', April 2020, p.10, paragraph 47.

a company specific adjustment to the cost of capital, increasing the industry cost of capital, adjusting the approach to cost allowances and reducing the asymmetric downside risk. We summarise our response to Bristol Water's claims in relation these issues in the executive summary above and provide more detail on:

- cost allowances in chapter 3 below and our 'Cost efficiency – common issues' document;
- the balance of risk in chapter 4 below and our 'Risk and return – common issues' document; and
- financeability and the cost of capital in chapter 6 below and our 'Risk and return – common issues' document.

## Engaging customers

2.8 In our PR19 methodology we set out our **expectation that companies should demonstrate ambition and innovation in their approach to engaging customers** as they develop their business plans.

2.9 While Bristol Water's September 2018 business plan provided evidence of elements of high quality customer engagement, we highlighted areas of concern in our initial assessment of the company's plan, such as their approach to using the customer research and other information that it has used to set outcome delivery incentive rates.

2.10 We therefore made a number of interventions to the company's outcomes package based on the wider set of information available to Ofwat, including historical and sector comparative information on performance and customer preferences.

2.11 The company did not raise any points in its statement of case around our general methodology for assessing and, where appropriate, intervening in setting performance commitment levels or outcome delivery incentive (ODI) rates, including the incorporation of wider comparative information alongside its own customer research. It does raise concerns that two specific interventions on ODI rates (mains repairs and per capita consumption) do not reflect the views of its customers in relation to two specific which we respond to in detail in chapter 4 below.

2.12 We note that recent research by the Consumer Council for Water (CCW) revealed that (89%) of Bristol Water's customers found our draft determination

plan and bill reductions acceptable, comparable to the results of the company's research findings on overall plan acceptability (93%).<sup>36</sup>

## Setting bills for customers

2.13 In December 2017, we set out our early view on cost of capital in our PR19 methodology.<sup>37</sup> We identified that a reduction in the allowed return on capital provided headroom for bill reductions and more investment in resilience and service improvement.

2.14 We did not have an end position on bills in mind when we applied our PR19 methodology. Bills, or more properly total revenues as we are setting revenues and not prices, are a function of the decisions that we take on expenditure, allowed return and the amount of money recovered in period and over time. Bills are therefore a product of the other decisions and not an end in themselves.

2.15 Our final determination for Bristol Water will cut average bills by 14.8% in real terms in the 2020-25 period compared to the company's proposed 5.4%. We set out in Figure 2.1 below how the different aspects of Bristol Water's bills have changed between 2019-20 (year five of AMP6) and 2024-25 (year five of AMP7) according to our final determination.

2.16 For Bristol Water, the upward impact on bills between 2019-20 and 2024-25 result from increased pay as you go (PAYG) rates due to a lower overall totex and a large proportion of its capital expenditure being infrastructure renewals spend which is recovered in period.

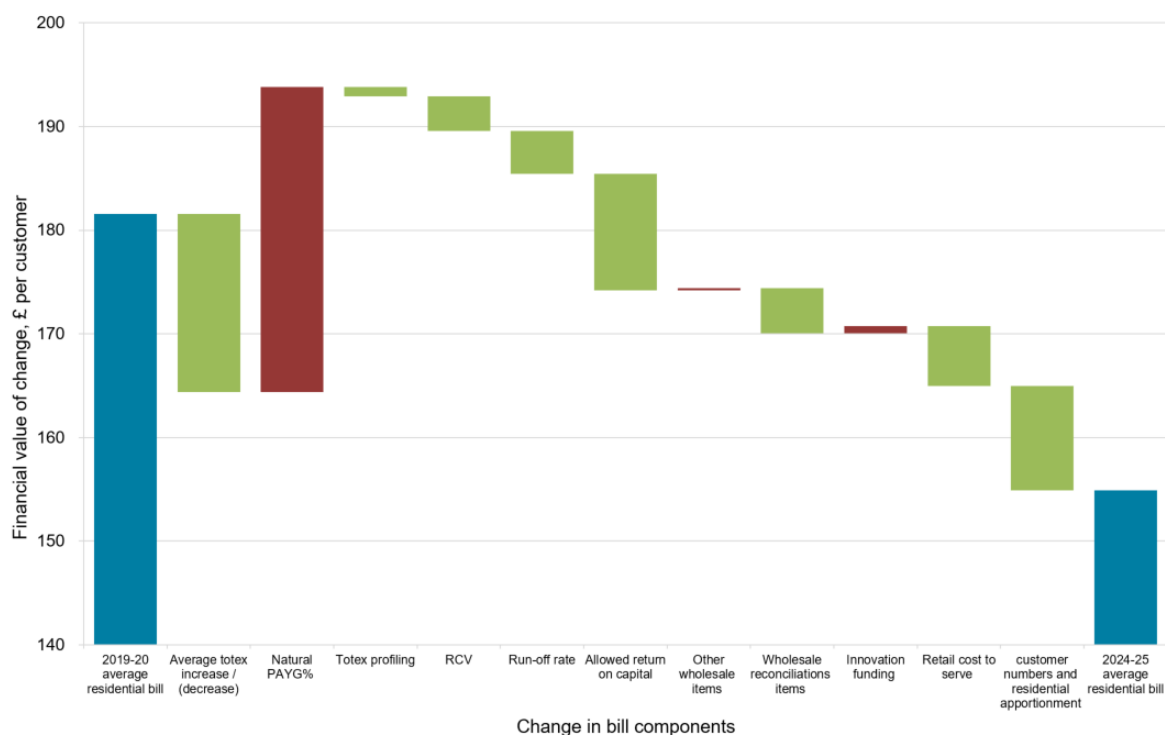
2.17 Bristol Water's customers' bills decrease in 2024-25 primarily due to:

- a lower overall totex allowance due to a reduction in enhancement expenditure;
- a lower allowed return on capital; and
- a higher number of customers to share costs between.

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<sup>36</sup> Consumer Council for Water PR19 – Draft Determination Research, February 2020.

<sup>37</sup> Ofwat, [Delivering Water 2020: Our final methodology for the 2019 price review](#), December 2017, p. 4.

**Figure 2.1: Bill movement between PR14 and PR19<sup>38</sup>**

## Development of the business plan

2.18 In Bristol Water's statement of case it outlines its development approach to its 2020-25 business plan.<sup>39</sup>

2.19 We set high expectations for water companies at PR19. We pushed them to go further than ever before, improving efficiency, customer service and resilience. We asked them to share financing gains with customers and to ensure that dividend and executive pay policy is aligned to delivering for customers. We asked them to take a long term approach, to look beyond the five-year price review period, to meet the needs of future customers and protect and improve the natural environment.

2.20 We assessed the quality of the company's September 2018 business plan against nine test areas as part of our initial assessment of plans in January

<sup>38</sup> We calculate the return on RCV using a real allowed return on capital. We used an allowed return on capital expressed in real RPI terms for PR14 returns, while it is using an allowed return on capital expressed in real CPIH terms for PR19 calculations. The use of the real CPIH terms allowed return on capital reduces the fall in bills at PR19 from lowering the nominal allowed return on capital. This is because the real CPIH terms allowed return on capital is around 1% higher than the allowed return on capital expressed in real RPI terms. Note this chart does not include PAYG uplift as for Bristol Water there is no change.

<sup>39</sup> Bristol Water, 'Statement of Case', April 2020, pp. 216-226, Annex 6 and pp. 227-237, Annex 7.



2019.<sup>40</sup> Given the scale and scope of the concerns we identified, Bristol Water's plan required a material level of intervention to protect customer interests. We provided a clear list of actions for the company to resolve in its revised April 2019 business plan.

2.21 In our draft determination, we reviewed the company's revised April 2019 business plan. Although the company had resolved a number of issues, we identified a number of areas where material interventions were still required as the company had not adequately addressed our concerns.<sup>41</sup> These included:

- reducing its costs to our view of efficient;
- increasing the strength of financial incentives on a number of its performance commitments such as leakage;
- increasing the underperformance rates in areas where the company was a poor performer such as mains repairs;
- rejecting the company's cost adjustment claims; and
- rejecting the company's proposed company specific adjustment for cost of debt.

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<sup>40</sup> Ofwat, [PR19 Initial assessment of plans: Bristol Water company categorisation](#), January 2019.

<sup>41</sup> Ofwat, [PR19 draft determinations: Bristol Water draft determination](#), July 2019, p. 8.

### 3. Securing cost efficiency

#### Summary

- 3.1 Our final determination for Bristol Water allows wholesale water totex of £411.3 million.<sup>42</sup> This is made up of £381.4 million of wholesale base expenditure and £29.9 million for wholesale enhancement expenditure. This is £32.7 million lower than the company's view of costs in its representation on our draft determination, a 7% cost gap.
- 3.2 The main area of difference, £28 million, in Bristol Water's final determination is in relation to wholesale water base costs.
- 3.3 In its statement of case Bristol Water states that, in developing its plan for the 2020-25 period, it considered a wide range of cost modelling approaches provided by consultants Nera and Oxera. It states that 'These models show us to be close to, or in a number of cases more efficient than, the upper quartile level of efficiency in the sector'.<sup>43</sup> It claims that its final determination allowance is lower than all of the scenarios it considered.<sup>44</sup>
- 3.4 However, we note that Bristol Water is shown to be inefficient in most of Nera and Oxera's cost models, in line with the findings from our own models.<sup>45</sup> The higher allowances these models indicate could be a result of the use of higher cost driver forecasts (while we use independent forecasts), or a less tight catch up challenge. We consider that the company should work further on its understanding of its efficient costs, using benchmarking and comparative information.
- 3.5 We closely examined our econometric models (which are the basis for our base allowance determination), including looking at alternative specifications, and concluded that the remaining cost difference is explained by the inefficiency of Bristol Water's base costs.
- 3.6 We considered that Bristol Water is efficient in the residential retail price control, and gave an allowance of £50.8 million which is £0.8 million greater than requested in this area.

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<sup>42</sup> Note the wholesale totex figure excludes residential retail.

<sup>43</sup> Bristol Water, 'Statement of Case', April 2020, p. 81, paragraphs 330

<sup>44</sup> Bristol Water, 'Statement of Case', April 2020, pp. 81-82, paragraphs 329-335.

<sup>45</sup> Bristol Water, 'BW015. September business plan – Supporting documents cost efficiency', pp. 36-37. Most models present significant efficiency gaps from the upper quartile (UQ) company.

- 3.7 We considered that **Bristol Water's wholesale totex allowance forms part of an in the round package that is stretching but achievable**, and is set at a level that ensures that customers only pay for efficient costs.
- 3.8 This is the third price review in succession where Bristol Water has requested a redetermination. Relative to the current cost gap of 7%, the cost gap between the company business plan and our final determination allowance was significantly higher in the 2009 and 2014 price reviews at 20% and 24% respectively. In both of the previous references, Bristol Water's final cost allowance at the Competition Commission and CMA redeterminations was within 4% of our final determinations.
- 3.9 Despite the significantly higher cost forecast in Bristol Water's business plan than in the redeterminations, we note that in the first four years of the 2015-20 price control the company has outperformed against its cost allowance by 4.2%.<sup>46</sup> However based on the latest data provided by the company in its representation on our draft determination in August 2019, it is forecasting to slightly underperform for the 2015-20 price control (see Table 2.3 in chapter 2 of our 'Cost efficiency – common issues' document). In the 2010-15 price control, the company underperformed against its cost allowance by 5.2%.<sup>47</sup>
- 3.10 In Bristol Water's statement of case it states that it does not 'dispute Ofwat's retail controls or significant elements of the wholesale controls.'<sup>48</sup> Table 3.1 highlights the key issues raised by Bristol Water in relation to costs, and a summary of our response to each of those points.

**Table 3.1: Key issues on costs raised by Bristol Water in its submission**

Key issue in Bristol Water's submission	Summary of our response
<p><b>Service level error.</b> Bristol Water claims that Ofwat failed to account for differing levels of service in the base models. This results in its efficient costs being understated by £14-15 million.</p> <p>Statement of case, pp. 85-92, paragraphs 341-369.</p>	<p>The company attempts to control for service quality level by reallocating over £1.5 billion of forecast enhancement costs to the base models, mixing historical and forecast data, which is contrary to any principle of robust modelling. The approach taken by the company is not credible, and we do not find any additional evidence that the company's efficient allowance</p>

<sup>46</sup> Ofwat, '2018-19 Service Delivery Report', October 2019, p. 7.

<sup>47</sup> Note we have reviewed our calculation of totex performance since our submission to the CMA on 19 March 2020. This has resulted in a change in our view of company totex performance in 2010-15. We include the Notified Index in our baseline view of total capex adjusted for logging up, down and shortfalls contained in the final Capex Incentive Scheme (CIS) models. We exclude transition spend in 2014-15 from actual total capex which is also based on the final Capex Incentive Scheme (CIS) model figures. We include 2014-15 transition spend within the totex reconciliation for 2015-20.

<sup>48</sup> Bristol Water, 'Statement of Case', April 2020, p. 1, paragraph 4.

	is understated. We outline our more detailed response in paragraphs 3.22-3.32 below.
<p><b>Leakage error.</b> Bristol Water argues an additional £13 million is required to maintain its 2019-20 leakage levels. The company argues Ofwat's base cost models make insufficient cost allowance for its leakage expenditure. Statement of case, pp. 92-98, paragraphs 370-395.</p>	<p>We consider that our approach to leakage provides an adequate allowance. This includes the assessment of alternative base model specifications containing leakage variables, and a full allowance of the company's requested enhancement leakage cost (£4.8 million). The company does not validate the £13 million request with analysis of its own cost data or leakage management activities. We outline our more detailed response in paragraphs 3.33-3.46 below.</p>
<p><b>Benchmark error.</b> Bristol Water argues that Ofwat should have set its catch up efficiency challenge at the upper quartile company rather than the fourth ranked company. Statement of case pp. 98-105, paragraphs 396-428.</p>	<p>We have set the benchmark at a comfortably achievable level. The move was supported by clear evidence that the upper quartile company was no longer providing a stretching enough challenge, particularly in the light of better information revealed by companies on their efficient costs, as a result of new cost sharing incentives. Eight out of 17 companies are still forecasting more efficient costs than our efficient benchmark, which indicates there is significant scope for outperformance of our cost allowance. We outline our more detailed response in paragraphs 3.47-3.75 below.</p>
<p><b>Frontier shift error.</b> Bristol Water argues that Ofwat's choice to set productivity improvements at 1.1% each year is unjustified, and that the decision to apply frontier shift to unmodelled costs is unprecedented. Statement of case, pp.105-113, paragraphs 429-454.</p>	<p>Our frontier shift of 1.1% per year is based on a wide range of evidence, is consistent with decisions other regulators have taken and should be applied to all base costs since it has been derived from all costs from comparator sectors. We outline our more detailed response in paragraphs 3.76-3.87 below.</p>
<p><b>Input price error.</b> Bristol Water argues that Ofwat failed to account for real inflation in energy costs when considering input prices. Statement of case, pp. 113-117, paragraphs 455-471.</p>	<p>We do not consider that a real price adjustment for energy costs is appropriate as it will weaken company incentives to minimise energy costs: there is mixed evidence of a historical wedge between energy prices and inflation; energy costs are already partially reflected in CPIH indexation; energy costs are partially under management control and energy price forecasts have proved unreliable. We outline our more detailed response in paragraphs 3.88-3.102 below.</p>
<p><b>Growth &amp; developer services error.</b> Bristol Water raises a number of issues with our approach to assessing growth expenditure, such as its inclusion in our wholesale base models, the use of ONS population projections and the growth adjustment made at final determination. The company also makes some comments on our approach to developer services, such as the</p>	<p>It is appropriate to model growth together with base expenditure due to the similar characteristics these costs share. Dealing with population growth is a routine part of water companies' business, as it is in many other sectors. ONS forecasts are appropriate to protect customers against the risk of over-forecasting population growth. Our growth adjustment has a robust rationale and is a sensible approach to refine our assessment of</p>

<p>use of an efficiency challenge on grants and contributions and the DSRA unit rate.</p> <p>Statement of case, pp. 117-121, paragraphs 472-495.</p>	<p>growth expenditure. We find that the company has misunderstood our growth adjustment and some aspects of our assessment of developer services costs. Overall, there is not a material gap on growth expenditure for Bristol Water. We outline our more detailed response in paragraphs 3.103-3.120 below.</p>
<p><b>Canal &amp; River Trust error.</b> Bristol Water argues that the £2.7 million disallowance for its £8.6 million claim should be allowed by the CMA as Bristol Water is unique and an outlier in terms of the volume of raw water it pays to a third party provider.</p> <p>Statement of case, pp. 121-133, paragraphs 497-537.</p>	<p>We accept that Bristol Water is unique in the proportion of raw water it sources by means of a contractual arrangement with a third party provider. However, Bristol Water simply has a different procurement model for sourcing its water resources compared to other companies. This fact alone does not explain why its water resources costs are higher than other companies. Other companies incur alternative costs for owning water resources assets that Bristol Water does not incur, or incurs only at a lower level. Bristol Water does not demonstrate that the third party payments are the cause for its high water resources costs.</p> <p>The company has not provided any additional convincing evidence in its response to the CMA. Our final determination allowance for this claim was an acknowledgement in our in the round assessment that the company challenged its own costs considerably throughout the price review process. However, the evidence the company presented on its understanding of its water resources assets and related costs and efficiencies was poor. If considered in isolation we would recommend this claim is disallowed in its entirety as it is not justified on the basis of evidence presented. We outline our more detailed response in paragraph 3.121-3.146 below.</p>
<p><b>Enhancement opex error.</b> Bristol Water argues that the enhancement opex implicit allowance should have been capped at the value of enhancement opex included in its 2020-25 plan.</p> <p>Statement of case, pp. 133-136, paragraphs 538-554.</p>	<p>The value of the enhancement opex implicit allowance is a reflection of the proportion of enhancement opex included in the historical period of our wholesale base models, and does not represent an assessment of the enhancement opex that the company included in its 2020-25 plan (which we assess separately). Therefore it would be inappropriate to apply a cap based on the enhancement opex proposed in the company's business plan. We outline a more detailed response in paragraphs 3.147-3.151 below.</p>
<p><b>Enhancement efficiency error.</b> Bristol Water argues that it was wrong of Ofwat to apply a further efficiency challenge in enhancement shallow dives in the absence of an efficiency assessment, and that it was wrong to calculate the efficiency challenge using base costs.</p>	<p>We consider it is proportionate to apply such efficiency challenge in low materiality areas, where we do not require companies to provide substantial evidence of the efficiency of the proposed investments. Because we expect companies to apply the same level of efficiency to all elements of their business plan, it is</p>

Statement of case, pp. 136-140, paragraphs 555-577.	reasonable to derive the efficiency challenge from the company's efficiency on base costs. We outline a more detailed response in paragraphs 3.153-3.155 below.
<p><b>Licence fee error.</b> Bristol Water states that Ofwat's proposal to increase its licence fee cap after final determination was unexpected and that a corresponding allowance should have been made in the final determination for this increase</p> <p>Statement of case, pp. 140-142, paragraphs 578-588.</p>	We do not consider this is an issue and do not consider it is appropriate for Bristol Water to request an adjustment to its allowance. As we informed all companies in writing, they will have the opportunity to comment on the proposed licence fee cap change in the consultation we will be running in the second half of 2020. In addition, the proposal does not relate to an automatic increase in the licence fee, but rather to an increase in the cap. We have been clear with companies that the cap increase is a limit and is not a target which Ofwat aims for in agreeing its budget with Government. We outline a more detailed response in paragraphs 3.156-3.160 below.

## Considerations for the CMA

- 3.11 It is important to recognise that the price review is a process affected by asymmetry of information between the companies and Ofwat. Companies can provide evidence to draw attention to areas where they deserve an allowance, but they do not have an incentive to draw attention to aspects of their service which are lower cost than our allowance.
- 3.12 During the PR19 process we received numerous representations and cost adjustment claims from companies for additional costs. We would expect there to be numerous cases where a negative adjustment is warranted, however, we have not received any such representations from companies. A clear example of this is our cost adjustment claims process: during the PR19 process we received cost adjustment claims for a total of around £4 billion, but no company submitted a claim for a negative adjustment to its allowance.
- 3.13 Similarly, the issues raised in companies' references to the CMA will be focused on areas where companies are arguing for a higher allowance. There is therefore a significant risk that aspects of our final determination which were generous for the company, and make the determination appropriate in the round, will lose the prominence they need amidst the detail of the many issues raised.

3.14 These are therefore flagged here. We also list the decisions which Bristol Water is not disputing, and highlight certain other key points which we consider it would be appropriate for the CMA to take into account:

- In **residential retail**, we assessed the company as efficient and made a final allowance of £50.8 million, £0.8 million greater than requested in this area.
- At final determination we made a £3.6 million upward adjustment to the company's wholesale base expenditure for its expected higher **growth**. The company is arguing that the adjustment should have been higher (see paragraphs 3.103-3.120 below).
- While the company challenges our use of Office for National Statistics population projections to forecast **new connections**, it does not dispute other forecasts of cost drivers. We calculated that our independent forecasts benefit the company by an additional £2.5 million allowance, compared to a scenario where we used the company's business plan forecasts.
- We allowed the company £5.9 million in relation to its **Canal & River Trust cost claim**, despite the poor evidence presented and our concerns that the company does not have a good understanding of its water resources assets and costs. The company is arguing that a full allowance should have been made (see paragraphs 3.121-3.146 below).
- At final determination, we allowed in full £4.1 million in relation to costs associated with the **Traffic Management Act**, following further evidence provided by the company in its representation on our draft determination.
- We allowed in full the company's requested **enhancement costs for leakage** (£4.8 million). While the company is not disputing this allowance, it is now presenting a new claim for a further £13 million allowance (see paragraphs 3.33-3.46 below).
- On enhancement costs, we allowed the company the full requested cost for **metering** (£9.4 million), and made efficient allowances for **WINEP** (£4.5 million), **raw water deterioration** (£1.4 million), freeform lines (£1.3 million). While the company is not disputing these allowances, it challenges the efficiency challenge we applied (see paragraphs 3.153-3.156 below).
- We provided the company an **additional enhancement allowance for strategic water resources development**, to support the delivery of long-term drought resilience (£2 million).

3.15 In our PR19 methodology, we set out our expectation for water companies to make a step change in efficiency by 2025. We do not consider that customers should pay for inefficiency where their company needs to catch-up to an efficient level of performance, or that companies should easily outperform their



allowances so that investors could earn higher returns at the expense of customers.

- 3.16 We suggest that the CMA should approach the final determination for Bristol Water in the round, weighing the company's arguments as part of the broader final determination package. Overall we consider that the final determination package is funding efficient costs, and is stretching but achievable.

## **Our response to key issues raised by Bristol Water**

### **Base costs**

- 3.17 Throughout PR19, we developed our wholesale econometric models following a robust, transparent and inclusive process. We drew on lessons learned from PR14, and ran working groups with the industry on cost modelling during 2016 and 2017.
- 3.18 In March 2018 we published a consultation on cost modelling. This included a wide range of models proposed both by us and the water companies, as a joined-up industry effort to develop better econometric models for PR19. We took account of the responses and feedback we received when developing our PR19 wholesale econometric models.
- 3.19 Following companies' responses to the initial assessment of plans and draft determinations we reviewed and refined our models. Throughout the PR19 process, we published our data, Stata do-files and feeder models transparently, so that companies and other stakeholders could replicate our findings and provide meaningful feedback.
- 3.20 While Bristol Water does not fundamentally challenge the specifications of our cost models, its statement of case raises issues arising from specific aspects of our base allowances, which it considers to be understated. We discuss each in turn below.
- 3.21 Where the issue is common across the four disputing companies, we provide a brief summary below and refer to a more detailed response in our 'Cost efficiency - common issues' document.



## Key issue – Service level

- 3.22 Bristol Water argues that, because our base models do not control for service quality, they mistakenly show the company to be inefficient historically. It claims that remedying this would increase its allowance by a further £14-£15 million ('service level error').<sup>49</sup>
- 3.23 The company claims that its base costs were higher in the historical period because it targeted a higher level of service to be delivered from its base allowances. Whereas other companies were delivering a lower level of service in the historical period and are now proposing enhancement expenditure for the same service improvements that Bristol Water has already achieved.
- 3.24 To control for service level, Bristol Water reviewed other companies' enhancement proposals for the 2020-25 period, and identified which proposals it considers relate to achieving the same level of service that Bristol Water had already achieved from its base expenditure. The company reallocated over £1.5 billion of other companies' forecast enhancement costs for the 2020-25 period to historical base costs, and re-ran Ofwat's final determination cost models with the inclusion of the additional enhancement expenditure in the sample period.<sup>50</sup> The company provides an additional report by KPMG as quality assurance of the approach taken.<sup>51</sup>
- 3.25 The approach taken by Bristol Water to demonstrate that its historical base costs are not inefficient is neither robust nor credible. **The subjective reallocation of forecast costs to historical expenditure is contrary to any principle of robust modelling**, and the results of such modelling cannot be taken as a credible indicator of companies' performance in the historical period, including Bristol Water's performance.
- 3.26 **Our models consistently show Bristol Water to be inefficient in the historical period, across all levels of aggregations considered.**<sup>52</sup> For final determination, we also assessed a number of alternative models, including models that control for leakage, which is a service quality measure. All alternative models showed Bristol Water to be inefficient in the historical period,

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<sup>49</sup> Bristol Water, 'Statement of Case', April 2020, p. 85, paragraphs 341-346.

<sup>50</sup> Bristol Water, 'Statement of Case', April 2020, pp. 90-91, paragraphs 360-362 and Table C4.

<sup>51</sup> Bristol Water, BW427. KPMG, Cost model review, March 2020.

<sup>52</sup> Ofwat, Final determination models, [Feeder model 2: Wholesale water – Catch up adjustment, December 2019](#).

consistent with the findings of our main models. The models also did not show that our base allowance for the company is materially underestimated.<sup>53</sup>

3.27 We further note that **Bristol Water's own modelling shows the company to be inefficient in the historical period, contrary to its claim that it was efficient historically**. The company argues that it developed its business plan proposal for the 2020-25 period with the support of modelling from NERA and Oxera, and that Ofwat's base allowance is significantly lower than the range of options considered.<sup>54</sup> However, most of the alternative models proposed by NERA and Oxera show Bristol Water to be inefficient in the historical period, consistent with the findings from our own models.<sup>55</sup> The significantly higher allowances that the company receives from these models could be due to other factors, such as the use of higher forecasts of cost drivers (while we use our independent forecasts), or a less tight catch up efficiency challenge.

3.28 Our base cost econometric models do not include a service quality cost driver for a number of reasons. In particular, performance is under companies' control, and so including a variable for this would risk leading to **perverse incentives** and over-funding companies with worse performance (if, for example, higher costs are associated with lower performance levels). Service quality variables also have an **ambiguous relationship with costs**.<sup>56</sup>

3.29 We further note that, as part of our March 2018 econometric modelling consultation, companies submitted over 220 models in water and wastewater.<sup>57</sup> **None of the models submitted by the companies included a service quality variable**. We think that this is quite revealing, in particular given that at that early stage of the process, in contrast to the current stage, companies were much more likely to propose their objective view of models, rather than be motivated to search a model that would close their final determination cost gap.

3.30 The CMA also highlighted reasons for not including service quality cost drivers in econometric models in its 2015 redetermination for Bristol Water.<sup>58</sup> In particular, the CMA made the decision not to include service quality variables such as percentage of mains renewed or relined, number of properties below

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<sup>53</sup> Ofwat, Final determination models, [Base adjustment model](#), December 2019.

<sup>54</sup> Bristol Water, '[Statement of Case](#)', April 2020, pp. 81-82, paragraphs 330-332 and Table C1.

<sup>55</sup> Bristol Water, 'BW015. September business plan – Supporting documents cost efficiency', pp. 36-37. Most models present significant efficiency gaps from the upper quartile (UQ) company.

<sup>56</sup> See our detailed discussion on the inclusion of service level variables in econometric models in chapter 3 of our 'Cost efficiency - common issues' document.

<sup>57</sup> Ofwat, '[Cost assessment for PR19: a consultation on econometric cost modelling](#)', March 2018.

<sup>58</sup> CMA, '[Appendix 4.2: Supporting information on alternative econometric models](#)', March 2015, pp. 27-29.

reference pressure level, leakage, and number of properties affected by unplanned and planned interruptions more than 3 hours, for the reasons outlined in paragraph 3.28 above. The CMA stated, 'given these issues, it seemed safer to exclude this variable altogether than to include it in the econometric analysis.'<sup>59</sup>

3.31 Overall, while our econometric models do not include service quality variables, we do not find any evidence that Bristol Water is mistakenly represented as inefficient in the historical period, nor that the company's allowance is understated by £14-£15 million.

3.32 We finally note that, where appropriate and in customer interest, we provided additional expenditure for companies to provide service improvements. For example, we provided an additional allowance to reduce leakage for high performing companies (including Bristol Water). We also provided an allowance for Thames Water to improve its performance on unplanned interruptions and for Welsh Water to improve network water quality. For any outperformance on service quality during the 2020-25 period, Bristol Water will be rewarded through our outcome delivery incentives framework. However, Bristol Water's performance against its outcome delivery incentives has led to underperformance penalties in 2015-20, reflecting a poor level of service in areas that Bristol Water is able to influence or control.<sup>60</sup>

## Key issue – Leakage

3.33 Bristol Water claims that our base cost models do not provide sufficient funding for the company to maintain its forecast 2019-20 leakage performance level. The company argues that this is a material error for Bristol Water given the company's strong performance on leakage, because Ofwat's approach does not recognise the higher cost of maintaining leakage already at a low level.<sup>61</sup>

3.34 The company states that the CMA 2015 redetermination provides evidence that its level of leakage performance should be taken into account when setting a cost allowance.<sup>62</sup>

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<sup>59</sup> CMA, 'Appendix 4.2: Supporting information on alternative econometric models', March 2015, p. 27, paragraph 131.

<sup>60</sup> Bristol Water – Annual performance report 2018-19, July 2019, pp. 214-267.

<sup>61</sup> Bristol Water, 'Statement of Case', April 2020, pp. 95-96, paragraphs 379-384.

<sup>62</sup> Bristol Water, 'Statement of Case', April 2020, p. 97, paragraphs 391-394.

- 3.35 Bristol Water requests an additional allowance of £13 million, which is calculated as the mid-point between the allowance suggested in the PwC report<sup>63</sup> and the allowance suggested in Ofwat's assessment of alternative model specifications.<sup>64</sup> The company does not request any changes to the performance commitment level we set at final determination.
- 3.36 Leakage is a high profile and important issue for customers, companies and regulators. Reducing leakage levels is important for ensuring resilient future supplies considering challenges such as climate change and population growth, and the industry has committed to delivering a 50% reduction by 2050.
- 3.37 We consider there is a need to challenge the industry, including companies that are comparatively high performers, to do more to deliver the reduction in leakage levels required to ensure future resilience for customers. The **stagnation in leakage reduction across the sector over the last 20 years** is disappointing, particularly in the light of the long term challenges facing the sector from population growth and climate change. Making better use of water resources from reducing leakage is an important element of addressing these challenges. It is vital that companies turn around their performance on leakage and that needs to begin now and be sustained into the future.
- 3.38 We believe that **the scale of technological change over the last 20 years have been underexploited by the sector** and enable companies to significantly step up leakage reduction at PR19.
- 3.39 For this reason, we challenged companies in our PR19 methodology in 2017 to achieve a stretching leakage common performance commitment of 15% leakage reduction (one percentage point more than the largest leakage reduction commitment at PR14). Our aim was to encourage companies to innovate, exploit existing and new technology and to revise business processes to reduce leakage, rather than just doing more of the same techniques used in the past. We wanted to see a step up in performance, we therefore set out that **we expected the 15% challenge to meet from within base funding**.<sup>65</sup> Despite being explicit that companies can make the case for leakage reductions that do not meet our 15% challenge, we were pleased that all companies accepted the challenge.
- 3.40 For Bristol Water, we made an additional adjustment by **allowing in full the amount the company requested for leakage enhancement (£4.8 million)**,

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<sup>63</sup> PwC, 'Funding approaches for leakage reduction', December 2019.

<sup>64</sup> Bristol Water, 'Statement of Case', April 2020, p. 98, paragraph 395.

<sup>65</sup> For full details on our leakage policy see chapter 5 of our 'Cost efficiency – common issues' document.

**in recognition of its leading performance on leakage.** We accept that for companies like Bristol Water, which are performing above our leakage benchmark threshold, driving performance forward will lead to additional costs, and we provide additional funding to make this shift.

3.41 Bristol Water is now arguing that our base allowance is not sufficient to maintain its forecast 2019-20 leakage level, and requests an additional £13 million allowance. **This is a new claim.** The company did not submit any cost adjustment claim on an equivalent basis in its business plans or representation on our draft determination, despite the numerous occasions it had.

**3.42** To support its claim, Bristol Water argues that Ofwat's alternative leakage models provide the company with a higher allowance. **We consider that this presents an incomplete and misleading picture.** Our alternative models include other specifications.<sup>66</sup> By focusing on the leakage models only, Bristol Water fails to acknowledge that there were some alternative model specifications which would reduce or not materially increase its base allowance. Overall, our assessment of alternative model specifications did not find that Bristol Water's base allowance was materially understated. **We therefore expect the company to maintain its 2019-20 leakage performance in the 2020-25 period through our base allowance.**

3.43 In addition, **Bristol Water does not validate the requested additional £13 million allowance with its own assessment of forecast of leakage costs or its historic expenditure.** We would expect the company to be able to demonstrate a clear understanding of its historic costs and leakage management activities and how these relate to the efficient future costs of maintaining its leakage levels. However, **the company does not provide any evidence of its leakage expenditure requirements on base costs**, and calculates the £13 million allowance using outputs from Ofwat's alternative base model specifications and the PwC report<sup>67</sup> leakage models.

3.44 We consider we have appropriately taken into account the CMA 2015 redetermination. We developed a new set of base models for PR19 applying lessons learned from PR14 and the CMA 2015 determination for Bristol Water, including an assessment of alternative leakage specifications.<sup>68</sup> As we describe above, we consider that our PR19 assessment approach and enhancement

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<sup>66</sup> For full details on our alternative model specifications see Ofwat, [PR19 final determinations: Securing cost efficiency technical appendix](#), December 2019, pp. 34-35.

<sup>67</sup> PwC, '[Funding approaches for leakage reduction](#)', December 2019.

<sup>68</sup> See chapter 3 of our 'Cost efficiency - common issues' document.

funding provide adequate allowance for the company to deliver its leakage performance commitment.

3.45 We consider that the company has not provided any substantive new evidence to support an adjustment in base allowance to fund leakage. We maintain our position that, through the enhancement funding allowed in full, customers are paying for future leakage reductions and that this reflects Bristol Water's performance levels.

3.46 We suggest that the CMA considers this issue in the light of the fact that this is a new claim from Bristol Water, which **casts doubt over the credibility and efficiency of the requested cost.**

### **Key issue – Benchmark**

3.47 Bristol Water claims that it was inappropriate to move the catch-up efficiency benchmark in water from the upper quartile company to the fourth ranked company at final determination.<sup>69</sup> It states that it was inappropriate to do so in the absence of significant improvements in the base models between draft determination and final determination, and that this introduces a significant risk that allowances will be distorted by data and modelling inaccuracies, as well as outliers.

3.48 The company argues that previous decisions made by other regulators do not support Ofwat's approach. In particular, it mentions Ofgem's use of the upper quartile efficiency challenge at RIIO-1.<sup>70</sup> It also expresses concerns that Ofwat's decision to change the catch-up efficiency challenge after companies identified forecast efficiency savings may disincentivise companies from revealing expected cost savings in future price reviews.<sup>71</sup> The company also does not think Portsmouth Water should be used to determine the catch-up efficiency challenge, because it is not a good comparator to other companies.<sup>72</sup>

3.49 To protect the interest of customers, we aim to set cost allowances that are efficient. **Benchmarking analysis allows us to identify relatively efficient companies within the sector**, and we can use this information to set a catch-up challenge to the less efficient companies in the sector. This replicates a

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<sup>69</sup> Bristol Water, 'Statement of Case', April 2020, p. 98, paragraph 396.

<sup>70</sup> Bristol Water, 'Statement of Case', April 2020, p. 103, paragraph 419.

<sup>71</sup> Bristol Water, 'Statement of Case', April 2020, p. 102, paragraph 416.

<sup>72</sup> Bristol Water, 'Statement of Case', April 2020, p. 104, paragraph 423.

competitive market, where less efficient companies would be unable to charge a premium to customers to cover their inefficiency.

- 3.50 At any point during the price review process, **it is our role to take a step back and reflect on whether our cost allowances are efficient and in the best interest of customers**. In particular, in the light of new information that is revealed, or becomes available, during the process.
- 3.51 After our draft determination, new information came to light. In particular, we received outturn data for the year 2018-19, which we incorporated into our econometric models. This significantly increased cost allowances as the 2018-19 year is an atypically high cost year, both in comparison to historical data and forecast data (in particular, the sector's annual forecasts in water are 16.2% lower than base costs in 2018-19). We also removed non-section 185 diversion costs from our base models. This removed lumpy expenditure and slightly improved the accuracy of our models.
- 3.52 In addition, **companies reduced their requested costs in their representations on our draft determination**. We acknowledge that there could have been different reasons for the reductions in companies' requested costs. However, these reductions may be a response to information revealed to the companies during the PR19 process, for example information on other companies' costs and our benchmarking assessment, which allowed them to better understand their efficient costs.
- 3.53 Further, at draft determination we changed our approach to the calculation of cost sharing rates. We said that we would put 50% weight on companies' August 2019 cost forecasts to determine their cost sharing, so **companies were incentivised to disclose better information about their efficient costs in response to our draft determination**. It would be wrong for us not to act on information disclosed through our incentives, in particular given that it is in essence customers who pay for this improved information.
- 3.54 Following the new information that came to light after our draft determination, we reviewed whether our base allowances are efficient. We identified that **most companies (12 out of 17) were already outperforming the modelled base cost allowance under the historical upper quartile**. This compared to six companies out of 17 at draft determination.
- 3.55 In addition, the level of the historical upper quartile challenge steadily decreased from the initial assessment of plans to draft determination, and again



following the incorporation of the 2018-19 data after our draft determination, as shown in Table 3.2 below.

**Table 3.2: Comparison of the upper quartile challenge at different price controls and different stages at PR19**

	Wholesale water	Wholesale wastewater
PR14 final determinations	6.5%	10.4%
PR19 initial assessment	4.8%	3.7%
PR19 draft determinations	4.2%	1.4%
<b>PR19 final determinations</b>	<b>3.9%</b>	<b>1.2%</b>

- 3.56 In light of this information, we considered that the historical upper quartile challenge no longer provided a suitable challenge to companies' proposed base costs.
- 3.57 In addition, only Thames Water expressed an issue with the upper quartile catch-up efficiency challenge that was applied in our draft determination. This suggests that all four disputing companies considered the draft determination catch-up efficiency challenge to be appropriate and achievable. Our final determination catch-up efficiency challenge, although set at a more stringent level than the upper quartile, is **lower than that applied at draft determination** (Table 3.2).
- 3.58 We consider that **the decision to move to a more stringent catch-up efficiency challenge than the upper quartile is not only appropriate, but also in line with our PR19 methodology**. In our PR19 methodology, we said that we would look to strengthen the efficiency challenge of PR14. We said that we would expand the set of evidence we would use to inform our efficient cost baselines and that we would use historical and forward-looking cost performance to identify the most efficient companies in the sector. We said this would be used to set the benchmark for the rest of the companies in the sector. By using all available information to set our cost baselines, we ensure that our baselines are stretching, so that customers do not pay more than necessary for the services they receive. We also said that we would determine the appropriate level of efficiency challenge for the five years of 2020-25 when we set our draft and final determinations.
- 3.59 Overall, our final determination catch-up efficiency challenge is set at a **comfortably achievable level**. The catch-up efficiency challenge was strengthened by only 0.7 percentage points in water compared to the upper



quartile level. As a result, **eight out of 17 companies are still forecasting more efficient costs than our efficient benchmark.** This suggests that our choice is likely to be conservative.

3.60 Bristol Water argues that the absence of significant improvements in the model performance does not justify adopting a more stringent catch-up efficiency challenge.<sup>73</sup> While model performance alone is not an argument to dismiss evidence in the round, we also consider that there is **evidence that our models performed better at final determination.** Our analysis indicates that the range of efficiency scores between companies has narrowed between draft and final determinations.<sup>74</sup> Therefore, model performance supports our decision.

3.61 However, **we strongly consider that the setting of the catch-up challenge is not only a function of model quality.** The fact that 2018-19 was a high cost year, unrepresentative of historical and forecast costs, and as a consequence our base cost allowance was above that of most companies' forecasts was something that we needed to take into account. Rather than not using the 2018-19 data, we accepted companies' views that we ought to use the latest data but amend the catch-up efficiency challenge to address the issue.

3.62 We also have to consider that our benchmarking is done amongst long standing monopolies. Even the relatively efficient companies within this sector are unlikely to be as efficient as companies facing competitive pressure. Our comparative assessment is unlikely to identify maximum achievable efficiency. This relates to the concept of x-inefficiency, which is that in non-competitive sectors there is a level of inefficiency due to lack of competitive pressure.

3.63 Bristol Water claims that previous decisions from other regulators do not support Ofwat's approach.<sup>75</sup>

3.64 We acknowledge that Ofwat and Ofgem both adopted an upper-quartile efficiency challenge at PR14 and RIIO-1. But we do not consider this is sufficient evidence to suggest that a more stringent catch-up efficiency challenge could not be applied in the future. Other UK regulators have used more stretching benchmarks than the upper quartile. Postcomm, Ofcom and Monitor have previously employed an upper decile benchmark in their

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<sup>73</sup> Bristol Water, 'Statement of Case', April 2020, p. 102, paragraph 415.

<sup>74</sup> We provide full details of this analysis in chapter 6 of our 'Cost efficiency – common issues' document.

<sup>75</sup> Bristol Water, 'Statement of Case', April 2020, pp. 102-103, paragraphs 417-422.

regulation of Royal Mail delivery offices, British Telecom and acute health care providers respectively.<sup>76</sup> More recently, and potentially closer in terms of comparability to the water sector, the Northern Ireland Utility Regulator used the fourth placed company out of fifteen companies to set the efficiency benchmark in the price control determination for NIE Networks for the period 2017-2024 (RP6).<sup>77</sup> In contrast, the upper quartile benchmark would have been between the fourth and fifth placed company.

3.65 In addition, the upper quartile PR14 challenge was significantly more stringent than our PR19 catch-up efficiency challenge, as shown in Table 3.2 above.

3.66 We also consider **it would not be appropriate, or in the best interest of customers, to be constrained by what other regulators have done or what we have done in the past as a reason not to apply a more stretching challenge**, if other evidence suggests that a more stretching challenge is required and achievable.

3.67 Bristol Water expresses concerns that strengthening the catch-up efficiency challenge after companies identified forecast efficiency savings may disincentivise companies from revealing expected cost savings in future price reviews.<sup>78</sup>

3.68 We consider that **the concern raised by Bristol Water is evidence on the asymmetry of information that we have to contend with**. The concern also highlights the strength of benchmarking analysis to reveal information.

3.69 Our regulatory framework provides multiple incentives for companies to reveal information, and thus to reduce the asymmetry of information between Ofwat and the companies. It is customers that pay for these incentives and it would be inappropriate for us not to use information revealed through these incentives in order to protect them.

3.70 The fast track process, for example, incentivises companies to submit efficient plans so that they can earn the rewards that come with being a fast track company. Similarly, at draft determinations we changed our approach to the calculation of cost sharing rates. We said that we would put 50% weight on companies' August 2019 cost forecasts to determine their cost sharing rate, so they were incentivised to disclose better information about their efficient costs.

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<sup>76</sup> Source: [https://www.ofcom.org.uk/\\_\\_data/assets/pdf\\_file/0019/69400/benchmarking-report.pdf](https://www.ofcom.org.uk/__data/assets/pdf_file/0019/69400/benchmarking-report.pdf)

<sup>77</sup> Source: <https://www.uregni.gov.uk/publications/nie-networks-td-6th-price-control-final-determination-rp6>

<sup>78</sup> Bristol Water, 'Statement of Case', April 2020, p. 102, paragraph 416.

**It would be wrong for us not to act on information disclosed through our incentives.**

- 3.71 We will also continue to use companies' forward-looking view (where appropriate) to set allowances in future price controls. This ensures that companies continue to be incentivised to submit efficient business plans.
- 3.72 Bristol Water does not think Portsmouth Water should be used to determine the wholesale water catch-up efficiency challenge because it is not a good comparator to other companies.<sup>79</sup> We acknowledge that there is a gap between Portsmouth Water and the next most efficient company. Portsmouth Water's wholesale water historical efficiency score is 0.79, which compares with Yorkshire Water's historical efficiency score of 0.93.<sup>80</sup> Yorkshire Water is ranked the second most efficient water company. This is one reason why we do not set the catch-up efficiency benchmark at the frontier company.
- 3.73 However, we do not consider this limits our ability to set the benchmark at the fourth placed wholesale water company, which we consider is very much achievable. Our choice of wholesale water benchmark retains a credible set of smaller and larger companies to determine the catch-up efficiency challenge for the rest of the sector. For wholesale water, the set of companies include Portsmouth Water, Yorkshire Water, South West Water and South Staffs Water. These companies all represent a mix of outcomes performance, and represent a mix of investment cycle positions. These companies were also identified as being relatively efficient in PR14.
- 3.74 Overall, we consider we have set a catch-up efficiency challenge which is conservative and comfortably achievable, and that our decision was supported by clear evidence and reflected the most updated information on companies' efficient costs.
- 3.75 We provide a more detailed response to this issue in chapter 6 of our 'Cost efficiency – common issues' document.

**Key issue – Frontier shift**

- 3.76 Bristol Water states that the frontier shift should be reduced from 1.1% to 1% per year. Bristol Water raises four concerns with our frontier shift assessment

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<sup>79</sup> Bristol Water, 'Statement of Case', April 2020, p. 104, paragraphs 423-424.

<sup>80</sup> See Ofwat, 'Feeder model 2: Wholesale water – Water Catch up adjustment', December 2019, Efficiency tab.

which we reject. **Our frontier shift estimate is consistent with recent and longer term growth in comparator sectors, is consistent with previous regulatory decisions and takes account of detailed evidence of the impact of the totex and outcomes framework. We consider that there is a strong case for going beyond a 1% per year frontier shift:** in particular to take some account of value added measures which tend to be well above 1% per year; the additional impact of embodied technological change, which can increase productivity growth estimates by 60%; and a one-off uplift to reflect the potential for additional efficiency improvement from the totex and outcomes framework.

3.77 Bristol Water states that it is not clear how we have derived our estimate of frontier shift from the evidence and in particular which portion of the 1.1% per year frontier shift is attributable to the impact of the totex and outcomes regime, although we note that **it adopts a similar frontier shift of 1% per year.**<sup>81</sup> We made an in the round assessment of frontier shift based on a wide range of evidence and which is set out in chapter 7 of our 'Cost efficiency – common issues' document. Our assessment is based on a detailed, evidenced based assessment of the scope for frontier shift from ongoing productivity growth together with a one off adjustment for the impact of the totex and outcomes framework. It takes into account productivity growth from across comparator sectors, from both recent past and longer term trends, and takes into account both gross output and value added productivity measures. This is consistent with the advice from our consultants Europe Economics<sup>82</sup> who recommend an ongoing frontier shift towards the top end of the range 0.6% to 1.2% per year and KPMG<sup>83</sup> who proposed a range of 0.6% to 2.5% per year from combined effect of frontier shift efficiency and the impact of the totex and outcomes framework.

3.78 Bristol Water suggests that our frontier shift estimate was not consistent with recent productivity growth.<sup>84</sup> On the contrary, **our frontier shift assessment was consistent with recent productivity growth.** The Europe Economics productivity growth forecast is based on growth in comparator sectors, including manufacturing and construction, which has tended to outperform UK productivity in recent years (and also in the longer term). Growth in these comparator sectors has outstripped UK productivity by 0.5% to 0.6% per year. Assuming this relationship continues, Office for Budget Responsibility (OBR)

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<sup>81</sup> Bristol Water, 'Statement of Case', April 2020, p. 106, paragraphs 436 and 437.

<sup>82</sup> Europe Economics, 'Real Price Effects and Frontier Shift – Final Assessment and Response to Company Representations', December 2019, p. 7, Table 4.

<sup>83</sup> KPMG LLP and Aqua Consultants LTD, Report for Ofwat, 'Innovation and efficiency gains from the totex and outcomes framework', June 2018, p. 24, Table 8.

<sup>84</sup> Bristol Water, 'Statement of Case', April 2020, pp. 106-110, paragraphs 436-443.

labour productivity forecasts of around 1% imply productivity growth in comparator sectors of 0.9% to 1.3% per year, towards the upper end of the range provided Europe Economics.<sup>85</sup> We therefore reject the company argument that water sector productivity should reflect recent low growth across the economy as a whole.

3.79 Bristol Water states that the evidence that we used to justify our frontier shift productivity assumptions is flawed, in particular as the evidence on the totex and outcomes regime does not identify future productivity savings. It also claims that we have taken into account catch-up efficiency when deriving our estimate of frontier shift, and that the upper end of our frontier shift range is based on the better performing comparator sectors.<sup>86</sup> We reject each of these allegations.

3.80 **On the impact of the totex and outcomes regime:** In making our assessment of the potential for additional efficiency improvement from the totex and outcomes framework we drew on work from KPMG and Aqua consultants that forecast that there could be an additional 0.2% to 1.2% per year improvement in efficiency from the totex and outcomes framework over the next control period.<sup>87</sup> KPMG's range was based on three factors:

- **Outperformance:** KPMG examined outperformance from the totex and outcomes regime in the water and energy sectors and based on experience from the electricity distribution control (which is in its second totex control), made assumptions on the degree to which this was likely to continue in future controls.
- **Case studies:** 48 case studies provided by the water companies give examples of how they have been able to use the totex framework to realise greater efficiencies. These case studies varied across companies, and on their own, represented 3.8% of totex. KPMG found an average of 35.4% of efficiency savings, which by themselves translated to an overall efficiency improvement of 1.3% over 5 years.<sup>88</sup> These were drawn from a subset of over 180 examples provided by water companies and the supply chain.
- **Experience of other regulatory sectors:** KPMG reviewed performance improvements associated with structural or regulatory changes in 21

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<sup>85</sup> Ofwat, 'PR19 final determinations: Securing cost efficiency technical appendix', December 2019, p. 176.

<sup>86</sup> Bristol Water, 'Statement of Case', April 2020, pp. 110-111, paragraphs 444-449.

<sup>87</sup> KPMG LLP and Aqua Consultants LTD, Report for Ofwat, 'Innovation and efficiency gains from the totex and outcomes framework', June 2018, p. 95, Table 31.

<sup>88</sup> KPMG LLP and Aqua Consultants LTD, Report for Ofwat, 'Innovation and efficiency gains from the totex and outcomes framework', June 2018, p. 19.

settings, and found the upper bound of comparable performance gains to be 6.7% per year.<sup>89</sup>

3.81 We reject the assertion that we have not provided sufficient evidence to justify an uplift from the totex and outcomes framework. **We provided a significant body of evidence to support an uplift**, including case studies put forward by the companies themselves together with evidence from both water and energy controls. Our uplift is small in comparison to upper quartile company outperformance of 2.4% per year. **The case studies themselves suggest that there is substantial scope for all companies to learn best practice from their peers**. KPMG's estimate was for the second control period for a totex and outcomes regime and therefore took into account that cost models were based on historical expenditure data. The alternative that the companies appear to be suggesting is that no account should be taken of the totex and outcomes regime going forwards. We do not consider that this is a credible position and does not reflect the balance of evidence.

3.82 **On catch-up efficiency:** In our final determination we referred to findings from a study undertaken by Frontier Economics for Water UK on productivity improvement in the water sector to illustrate how productivity had stagnated in recent years.<sup>90</sup> The Water UK study of productivity improvement in the water sector shows average, quality adjusted, productivity growth of 2.1% per year between 1994 and 2017, although recent growth has been much lower. This captures productivity growth reflecting both catch up efficiency and frontier shift efficiency, particularly in the post privatisation period. Our frontier shift estimate of 1.1% per year is well below this. We use this as an illustration of the scope for the scope for efficiency improvement in the sector.

3.83 **On our frontier shift efficiency range:** The upper bound of 1.2% is based on the stronger performing comparator sectors over both the pre and post crisis period.<sup>91</sup> This is also consistent with productivity estimates for stronger performing sectors from water companies' consultants.<sup>92</sup> Europe Economics considers that averages of comparator sectors would not provide an appropriate upper bound as historical performance indicates many sectors can

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<sup>89</sup> KPMG LLP and Aqua Consultants LTD, Report for Ofwat, '[Innovation and efficiency gains from the totex and outcomes framework](#)', June 2018, p. 17, Table 5.

<sup>90</sup> Frontier Economics, '[Productivity Improvement in the Water and Sewerage Industry in England since Privatisation – Final Report for Water UK](#)', September 2017, p.3, Figure 2.

<sup>91</sup> Europe Economics, '[Real Price Effects and Frontier Shift – Final Assessment and Response to Company Representations](#)', December 2019, pp. 79-80.

<sup>92</sup> Europe Economics, '[Real Price Effects and Frontier Shift – Final Assessment and Response to Company Representations](#)', December 2019, pp. 79-80.

perform more strongly than the average and by definition, an average provides a measure of the central value of a distribution rather than an upper value.<sup>93</sup>

3.84 The upper end of the range also took into account the potential for additional productivity growth from embodied technological change and the higher productivity estimates from value added measures. We note that average growth under the value added measure of productivity was at least an average of 1.3% per year over the post crisis and full business cycle periods.

3.85 Bristol Water states that our decision to apply frontier shift to unmodelled base costs is unjustified.<sup>94</sup> We reject this assertion. The frontier shift estimates identified for comparator sectors are based on productivity growth across all costs, including both base and enhancement costs. Given that the frontier shift estimate was based on all costs in comparator industries (including costs that might be regarded as 'fixed'), we therefore applied frontier shift to all wholesale base expenditure. Water unmodelled base expenditure includes business rates, Traffic Management Act costs and abstraction rates. We consider that there is some scope for companies to reduce these costs, in particular Traffic Management Act costs for example through the use of innovative or non-invasive ways to make repairs. If the frontier shift estimate was not being applied to these costs, then either comparable costs should have been removed from other sectors before productivity estimates are made; or the frontier shift on other costs should be increased as it is only being applied to a smaller proportion of costs in the water sector.

3.86 Bristol Water states that the level of our frontier shift challenge goes beyond what other regulators have done.<sup>95</sup> Our frontier shift of 1.1% is within the range of frontier shifts applied by other UK regulators in recent years which tend to be around 1% per year and can be as high as 1.2% per year.<sup>96</sup> Our frontier shift also takes into account the additional benefit from the totex and outcomes framework.

3.87 We provide a more detailed response to this issue in chapter 7 of our 'Cost efficiency – common issues' document.

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<sup>93</sup> Europe Economics, 'Real Price Effects and Frontier Shift – Final Assessment and Response to Company Representations', December 2019, p. 116.

<sup>94</sup> Bristol Water, 'Statement of Case', April 2020, p. 111-112, paragraphs 450-452.

<sup>95</sup> Bristol Water, 'Statement of Case', April 2020, p. 112, paragraph 453.

<sup>96</sup> See Table 7.5 in chapter 7 of our 'Cost efficiency - common issues' document.



## Key issue – Input price - real price effects

- 3.88 Bristol Water states there should be a real price effect adjustment for energy prices of 0.15% per year, based on BEIS energy price forecasts of real energy price rises of 1.6% per year, and an industry average energy cost share of 9.4%.<sup>97</sup>
- 3.89 **We continue to consider that a real price adjustment for energy prices is not required** as it will weaken the incentives of companies to manage energy price risk. This is because there is mixed evidence of a historical wedge between energy prices and inflation, energy costs are already partially reflected in CPIH indexation, energy costs are partially under management control and energy price forecasts have proved unreliable.
- 3.90 Bristol Water raise a number of specific issues on a real price adjustment of energy prices which we deal with in turn below.
- 3.91 **Taking into account BEIS forecasts:** We took into account the latest BEIS energy price forecasts and company forecasts of energy real price effects although we note that Europe Economics states that reliance should not be placed on BEIS forecasts 'BEIS forecasts have also often failed to accurately predict electricity prices'.<sup>98</sup>
- 3.92 **Management control:** Energy costs are partially within management control, particularly the option to sign up to fixed energy tariffs to minimise exposure to price fluctuations. In the final determinations we noted that these contracts were usually for one to two years however we note that household and business contracts are currently available for up to five years. Other mechanisms such as payment arrangements, increased energy generation by the companies themselves, timing of energy use and improved energy efficiency can assist companies to reduce costs through reduced consumption and minimising exposure to price fluctuations.<sup>99</sup> Europe Economics explained<sup>100</sup> that while there are limitations to what it will be possible for companies to do to protect themselves against any increase in energy prices, there remains scope for management control.

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<sup>97</sup> Bristol Water, 'Statement of Case', April 2020, p. 113-117, paragraphs 453-471

<sup>98</sup> Europe Economics, 'Real Price Effects and Frontier Shift – Final Assessment and Response to Company Representations', December 2019, p. 112.

<sup>99</sup> Europe Economics, 'Real Price Effects and Frontier Shift – Final Assessment and Response to Company Representations', December 2019, pp. 37-38.

<sup>100</sup> Europe Economics, 'Real Price Effects and Frontier Shift – Final Assessment and Response to Company Representations', December 2019, p. 39.



- 3.93 **The share of energy prices in CPIH:** Europe Economics states that while the share of electricity in the CPIH basket is 1.3 per cent, and the total share of energy (including other fuels which tend to move in line with energy prices) in CPIH is 5.2% (based on 2018 weights). Europe Economics consider that it is most appropriate to consider the total share of energy including fuels rather than simply energy as there is evidence of a long-run relationship between oil, gas and electricity prices. This relationship is likely to reflect the fact that some long-term gas contracts on the Continent are indexed to oil prices, and arbitrage across the UK-Continent interconnector in turn links UK wholesale gas prices to continental gas prices. Further, the important role played by gas-fired generation in the UK means that wholesale electricity prices will be influenced by wholesale gas prices.<sup>101</sup>
- 3.94 **Energy self generation:** Water companies produce as well as consume energy, reducing the net impact of energy prices. They also produce biofuels whose value will be linked to energy prices.<sup>102</sup>
- 3.95 **Materiality of energy costs:** Contrary to the suggestion from Bristol Water we do not use a materiality threshold. However unlike labour costs (where we do provide a real price adjustment), the potential wedge is much smaller, equivalent to less than 0.1% of costs over the period based on BEIS forecasts (which have proved inaccurate), not taking account of the impact of cost sharing. While we have not used a materiality threshold we consider it is relevant to consider the scale of the impact of input prices.
- 3.96 **Company proposals on real price adjustments of energy:** While on average some companies did propose an increase in real energy prices, some companies suggested prices would decline, as shown in Table 3.3 below.

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<sup>101</sup> Europe Economics, 'Real Price Effects and Frontier Shift – Final Assessment and Response to Company Representations', December 2019, pp. 37-38.

<sup>102</sup> Europe Economics, 'Real Price Effects and Frontier Shift – Final Assessment and Response to Company Representations', December 2019, pp. 37-38.

**Table 3.3: Analysis of wholesale real price effects for energy costs proposed by companies**

	2020-21	2021-22	2022-23	2023-24	2024-25
Min	-1.2%	-2.2%	-2.0%	-3.5%	0.0%
Max	12.6%	9.0%	2.5%	3.0%	3.9%
Average	3.9%	1.5%	0.4%	0.7%	1.9%

Source: Europe Economics<sup>103</sup>

**3.97 Other protections in the price control mechanism:** Unlike the suggestion from Bristol Water when considering real price adjustments, we consider it important to consider other protections within the price control. There are a number of protections within the price control, such as cost sharing which provide additional protections to water companies and share cost under- and out- performance with customers.

**3.98 Net zero carbon target:** Unlike the suggestion from Bristol Water we consider that it is relevant that companies are moving towards their target of net zero carbon emissions during the 2020 to 2025 period. These measures could have a substantial impact on energy usage in the sector and therefore mitigate real price effects. For example, Yorkshire Water will increase the amount of renewable energy it generates from biogas by 15%, and South East Water will reduce its carbon emissions by 68%. To do this water companies are using a range of measures<sup>104</sup> including greater water efficiency, buying green energy, generating renewable energy, planting trees and working with their supply chain. We note that Bristol Water provides a number of measures where it is proposing to improve energy efficiency and reduce energy use.

**3.99 Power cost trend:** We consider that it is most relevant to consider electricity prices rather than total power cost trends. We note that there is mixed evidence of a historical wedge between electricity prices and CPIH inflation.

**3.100** We also note that **uncertainty over energy prices has increased with Covid-19**, with recent falls in oil prices putting significant downward pressure on energy prices. While the expected impacts for the 2020-25 period are still unclear, this may result in falling real energy costs over the period and further reduce the case for a positive real price adjustment for energy.

<sup>103</sup> Europe Economics, 'Real Price Effects and Frontier Shift – Final Assessment and Response to Company Representations', December 2019, Table 2.3.

<sup>104</sup> Water UK, 'Public Interest Commitment', April 2019.

3.101 Consequently we do not consider a real price adjustment (i.e. an allowance above inflation) is appropriate as it will weaken the incentives of companies to manage energy price risk. This is because there is mixed evidence of a historical wedge between energy prices and inflation, energy costs are already partially reflected in CPIH indexation, energy costs are partially under management control and energy price forecasts have proved unreliable.

3.102 We provide a more detailed response to this issue in chapter 8 of our 'Cost efficiency – common issues' document.

### **Key issue – Growth and developer services**

3.103 Bristol Water raises a number of issues with our approach to assessing growth-related expenditure.<sup>105</sup> The company does not agree with our integrated approach to modelling growth expenditure with base costs because it claims that the implied unit rates are too low. It challenges our use of Office for National Statistics (ONS) population projections for new connections, arguing we should have adopted companies' forecasts which are based on Local Authority data from their water resources management plans (WRMPs).

3.104 The company also criticises the growth adjustment we made at final determination, arguing it is flawed. It claims that the unit rate used in the adjustment is based on companies' forecasts of cost and connections, resulting in a unit rate which is higher than that implied in our econometric models. The company argues this illustrates the under-allowance made by our econometric models for growth at final determination. It also assumes that this adjustment works in the same way as the developer services reconciliation mechanism (DSRA) and will be payable at the end of the period 2020-25.<sup>106</sup>

3.105 Bristol Water makes some comments on our approach to developer services costs (i.e. grants and contributions). The company states that it was wrong for Ofwat to apply a historical efficiency challenge to grants and contributions, and that the base efficiency challenge should not be applied to growth expenditure nor to developer services cost.<sup>107</sup>

3.106 We respond to each of the company's arguments in detail below. In summary, **we do not find that there is a material shortfall in Bristol Water's growth expenditure needs**, once we consider an estimate of the growth implicit

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<sup>105</sup> Bristol Water, 'Statement of Case', April 2020, pp. 117-121, paragraphs 472-496.

<sup>106</sup> Bristol Water, 'Statement of Case', April 2020, pp. 120-121, paragraphs 489-494.

<sup>107</sup> Bristol Water, 'Statement of Case', April 2020, p. 120, paragraph 487.

allowance (£20.7 million), the additional growth adjustment (£3.6 million), and the additional revenue the company will receive through the DSRA should its forecast of new connections materialise (£5.6 million). We consider that adopting companies' forecasts of new connections would expose customers to a risk of over-forecasting population growth, given that WRMP forecasts have historically over-estimated households' growth. We find that **Bristol Water has fundamentally misunderstood how we set and apply our growth adjustment and some aspects of our approach to developer services** (such as the efficiency challenge). Therefore we do not consider that the company's claims in these areas are credible.

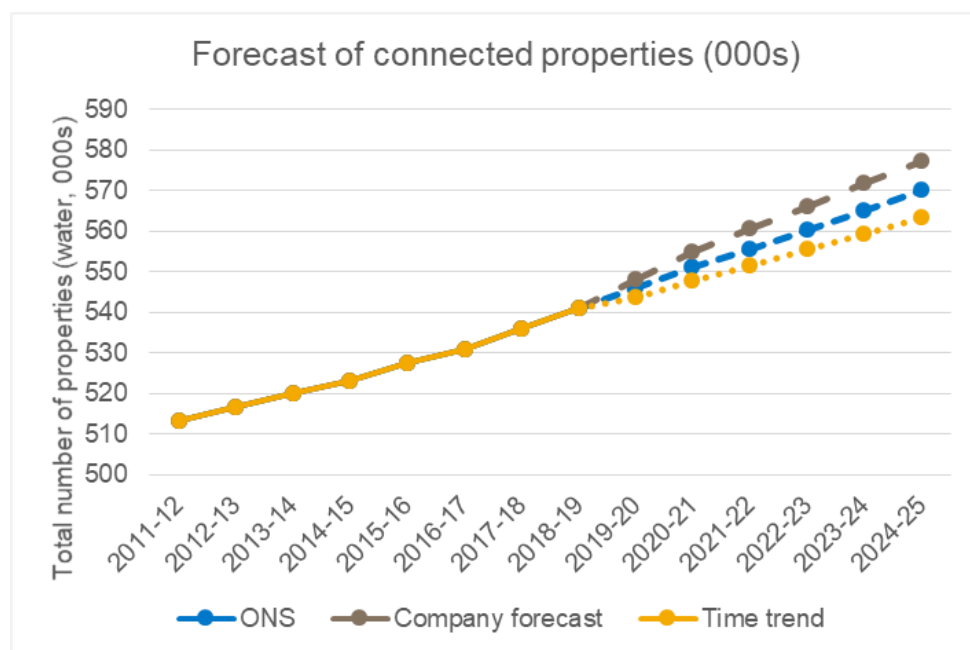
3.107 We do not agree with the company's claim that it would have been more appropriate to adopt the company's forecast of new connections, based on data from its WRMP. WRMP forecasts tend to be at the upper range of possible estimates of growth rates, as they are used to identify long-term capacity requirements. While this may be appropriate for long-term plans such as WRMPs, **for a short-term five year period the use of these forecasts would expose customers to a risk of over forecasting population growth.**

3.108 **Our analysis shows that WRMPs have historically over estimated households' growth rate.**<sup>108</sup> Similarly, all disputing companies have forecasted growth rates for the 2020-25 period which are significantly higher than the historical period. It is therefore important that we use independent forecasts of population growth, to protect customers against the risk that potentially inflated forecasts of cost drivers will feed into our cost estimates and customer bills.

3.109 ONS is an independent and widely recognised source for population projections. We reviewed these forecasts at both the draft determination and the final determination stages, and found them to be generally higher than historical time trends and lower than companies' projections. This is the case for the ONS forecast for Bristol Water (Figure 3.1).

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<sup>108</sup> See chapter 4 of our 'Cost efficiency - common issues' document for more detail.

**Figure 3.1: Forecast of total connected properties**

3.110 The latest ONS population projections (updated in March 2020) predict lower growth rates in the UK compared with the previous projections.<sup>109</sup> We also note that neither our forecasts of new connections nor the latest ONS projections account for the impacts of Brexit or Covid-19. Given the potential negative impact Covid-19 may have on housing demand and supply across the UK, it is likely that outturn new connections in the next five years might be well below ONS forecasts.

3.111 **Our regulatory framework offers companies considerable protection against the risk that our forecasts of new connections might be underestimated**, through the re-set of the price control every five years, the cost sharing mechanism, and in particular the DSRA. The latter will reconcile the difference between our forecast and outturn new connections, providing companies with additional revenue for any outturn new connection in excess of our forecast. Overall, we do not consider there is a convincing case to adopt companies' forecasts of new connections.

3.112 Bristol Water criticises the inclusion of growth expenditure within the base models, because it claims that this results in a lower implied unit cost (i.e. cost per new connection) than the company's forecast (£1,014 per connection).<sup>110</sup>

<sup>109</sup> See more detailed discussion on this in chapter 4 of our 'Cost efficiency - common issues' document.

<sup>110</sup> Bristol Water, 'Statement of Case', April 2020, p. 120, paragraph 486.

3.113 We considered it was appropriate to model together growth and base expenditure for several reasons. Dealing with population growth is a routine part of water companies' businesses, as it is in many other sectors. We do not expect a significant change in the main drivers of this expenditure in the next regulatory period, and consider that growth can be explained by similar drivers of base costs, such as the company scale and population density. There are also known reporting inconsistencies between companies in how they allocated cost between growth and base. Modelling these costs together mitigates for this. A more comprehensive explanation on our approach is provided in chapter 4 of our 'Cost efficiency – common issues' document.

3.114 Bristol Water's main challenge to our approach to modelling growth relates to the implied unit rates. We note that a comparison of implied unit rates is not reliable. **Our base models are designed to capture the overall level of efficiency in aggregate and are not designed to capture the implicit allowances for individual cost items.**<sup>111</sup> Therefore, every estimate of an 'implied' allowance for growth expenditure and 'implied' unit rates is likely to be imprecise and highly sensitive to the approach adopted.<sup>112</sup> Every estimate is also likely to be imprecise due to historical differences in reporting growth costs between companies (which is one of the reasons we model base and growth expenditure together).

3.115 In any case, Bristol Water's estimate of the unit cost per connection fails to consider the additional £3.6 million growth adjustment we made at final determination. Once that is taken into account, **our estimate of the implied unit cost per connection is around £1,014, in line with the company requested unit cost.**

3.116 **We find that Bristol Water has fundamentally misunderstood how we calculated and applied the growth adjustment.** The company states that Ofwat made an off-model adjustment for growth using the DSRA.<sup>113</sup> The growth adjustment we applied at final determination is very different in nature and application from the DSRA. Unlike the DSRA, the growth adjustment is not a reconciliation mechanism but forms part of a company's allowance for the 2020-25 period, and was applied to correct for the fact that our models fund companies based on the average historical growth rate. Moreover, the growth

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<sup>111</sup> This is also supported by Northumbrian Water in its statement of case. See Northumbrian Water, '[NWL PR19 Statement of Case](#)', April 2020, p. 129, paragraph 638.

<sup>112</sup> For example, one approach to estimating a growth 'implicit' allowance could be to calculate the difference between the allowance given by the base models including growth expenditure and allowance given by the base models excluding growth expenditure. A different approach could be to estimate the growth 'implicit' allowance based the proportion of growth expenditure included in our historical base models.

<sup>113</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 120, paragraph 489.

adjustment does not use Bristol Water's forecast new connections and costs, unlike stated by the company. For these reasons, we consider that Bristol Water's claim that our growth adjustment is flawed and inadequate is not credible.

**3.117 We also find that Bristol Water is not clear about our approach to developer services costs.** Bristol Water states that 'In addition, despite including growth costs in the base efficiency modelling, we note that Ofwat has applied the historical wholesale water efficiency challenge of 12% for Bristol Water to these costs'.<sup>114</sup> **This statement is incorrect for a number of reasons.** Firstly, we do not apply an additional efficiency challenge on growth expenditure. Rather, we apply an efficiency challenge on grants and contributions and on the unit rate used in the DSRA mechanism. Secondly, the 12% efficiency challenge is not a historical challenge, but is calculated on the company's forward-looking gap on base costs, calculated as the percentage difference between our view of efficient costs and the company's view of efficient costs for the period 2020-25.<sup>115</sup>

**3.118 We consider it is appropriate to apply an efficiency challenge on grants and contributions.** Developer services are a component of companies' base costs, so applying the base cost efficiency challenge ensures alignment between developer services and cost assessment.<sup>116</sup> We note that the challenge applied on the DSRA unit rate is different from that applied on grants and contributions, as we ensure that the former is only related to efficiency, rather than scope and efficiency, by setting the forecasts of cost drivers equal to the companies' forecast of drivers.<sup>117</sup>

**3.119 Overall, we do not consider that there is a shortfall in Bristol Water's growth expenditure needs.** Our estimate of the growth implicit allowance for Bristol Water is around £20.7 million, before taking into account the growth unit cost adjustment (£3.6 million). In addition, should the company's forecast of new connections fully materialise in the next regulatory period, the company would receive an additional £5.6 million through the DSRA mechanism. **This would add up to around £30 million, which is in line with the company**

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<sup>114</sup> Bristol Water, 'Statement of Case', April 2020, p. 120, paragraph 487.

<sup>115</sup> Ofwat, Final determination feeder models, 'Company efficiency factor model', December 2019.

<sup>116</sup> Ofwat, PR19 final determinations: Securing cost efficiency technical appendix, December 2019, p. 145.

<sup>117</sup> Ofwat, PR19 final determinations: Our approach to regulating developer services, December 2019, pp. 13-15.



**requested growth expenditure (£29.6 million).**<sup>118</sup> Although the estimate of the growth implicit allowance is indicative,<sup>119</sup> it highlights the lack of a material gap on growth expenditure for Bristol Water. For this reason, we are satisfied that Bristol Water's growth expenditure needs have been funded appropriately in our final determination, and that the company is protected against any undue risk.

3.120 We provide a more detailed response to the issues raised in chapter 4 of our 'Cost efficiency - common issues' document.

### **Key issue – Canal & River Trust cost adjustment claim**

3.121 Our cost assessment framework allows companies to submit cost adjustment claims in their business plans. This mechanism allows a company to present evidence of unique operating circumstances which drive differences in costs for a company relative to its peers and thus account for cost gaps in either base or enhancement costs. Bristol Water submitted a claim for a base cost adjustment to cover the cost of purchasing raw water from the Canal & River Trust, reducing the requested cost from £9.4 million to £8.6 million in August 2019.

3.122 In Bristol Water's statement of case it argues that we were unjustified in disallowing £2.7 million of its £8.6 million claim and that we have ignored the CMA's 2015 redetermination where its claim was allowed in full.<sup>120</sup> It is asking the CMA to allow its claim in full.<sup>121</sup>

3.123 Bristol Water has not provided any further convincing evidence in its statement of case. Therefore we maintain our final determination position that the Canal & River Trust claim should not be allowed in full.<sup>122</sup>

3.124 In summary, the difference between Bristol Water and other companies' water resources costs is that Bristol Water **simply has a different procurement model for sourcing its water resources**. Bristol Water pays a third party, the Canal & River Trust, to provide over 45% of its water resources from the

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<sup>118</sup> Bristol Water state in its statement of case that it estimates a total of £37.6 million is required for new connections in AMP7 (Bristol Water, '[Statement of Case](#)', April 2020, p. 121, paragraph 492). This figure refers to the company's view of grants and contributions, rather than growth expenditure.

<sup>119</sup> We note that there are multiple approaches to estimating an implicit growth allowance, and that any estimate is likely to be imprecise due to historical differences in reporting growth expenditure between companies. However, we can still use such estimate as an indication.

<sup>120</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 7, paragraph 32, bullet point 2.

<sup>121</sup> Bristol Water, '[Statement of Case](#)', April 2020, p.133, paragraph 537.

<sup>122</sup> Ofwat, '[PR19 final determinations – Cost adjustment claim feeder model Bristol Water](#)' and '[PR19 final determinations – Bristol Water – Cost efficiency additional information appendix](#)', December 2019.



Gloucester and Sharpness canal, while other companies make greater use of in-house sources.

3.125 This fact alone does not explain why Bristol Water's water resources costs are higher than other companies' costs. Other companies will incur alternative costs for owning water resources that Bristol Water does not incur, or incurs only at a lower level. **Bristol Water does not demonstrate** that the third party payments to the Canal & River Trust are the cause for its high water resources costs.

3.126 The evidence Bristol Water provided seems to show that its in-house costs are more expensive than the Canal & River Trust payments, indicating scope for further efficiencies in its water resources costs.

3.127 Bristol Water raises three main points in its statement of case: that the Canal & River Trust payments are the reason for its higher water resources costs;<sup>123</sup> that the higher treatment complexity costs, due to the poorer quality of the water abstracted, more than offset any savings in its lower abstraction costs;<sup>124</sup> and that our models do not adequately capture its higher treatment complexity costs.<sup>125</sup> We discuss each point in turn.

3.128 **Bristol Water's evidence does not demonstrate that the Canal & River Trust payments are the cause of its higher water resources costs or inefficiencies.** Bristol Water argues that the higher proportion of water it abstracts from the Canal & River Trust means that its costs are atypical, necessary and not reflected in our cost baselines, and are the cause of its higher water resources costs.<sup>126</sup> We accept that Bristol Water is unique in sourcing over 45% of its raw water by means of a contractual arrangement with the Canal & River Trust, a third party provider. However the company has not provided sufficiently convincing evidence to demonstrate that its water resources costs are higher than those incurred by other companies while being efficiently incurred, nor that the Canal & River Trust payments are the cause for the higher costs.

3.129 In our draft determination we asked Bristol Water to provide more evidence to demonstrate that the water resources costs it incurs are higher than those incurred by other companies and that these costs are incurred efficiently. Although the company provided a breakdown of its 2017-18 water resources costs, this was at a high-level, with **the company allocating over 70% of its**

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<sup>123</sup> Bristol Water, 'Statement of Case', April 2020, p.125, paragraph 514.

<sup>124</sup> Bristol Water, 'Statement of Case', April 2020, p.128, paragraph 519.

<sup>125</sup> Bristol Water, 'Statement of Case', April 2020, p.130, paragraph 526.

<sup>126</sup> Bristol Water, 'Statement of Case', April 2020, p. 124, paragraphs 506-507.

**overhead costs to 'central costs'**, with the remainder apportioned between canal and in-house (non-canal) sources and assets. Companies normally allocate overhead costs to specific assets operation or maintenance. This incomplete picture from Bristol Water made a comparison of total costs between types of source difficult. It also raised concerns over the company's understanding of and its ability to manage its assets operational and maintenance costs.

3.130 The 'central costs' could be apportioned to in-house or canal sources depending on different assumptions. For example, if we allocated 45% of the central costs to canal sources (in addition to the Canal & River Trust payment), then this source would have a slightly higher unit rate than the unit cost for in-house sources. However in this scenario the cost allocated to canal abstraction would be very high. In a more likely scenario, if we apportioned the cost by number of sources (1/25 as canal sources and 24/25 as in-house sources), the unit cost for in-house sourcing would be twice as high as the canal sourcing cost. This split seems fairer based on our consideration of valid central costs that could be associated with the canal source. Overall, Bristol Water's cost claim is highly sensitive to assumptions made on the allocation of overheads, and **the apparent higher cost of the canal sources is primarily due to Bristol Water's unusual and high level method of cost allocation.**

3.131 In its statement of case Bristol Water argues that Ofwat's approach to proportioning overheads in line with the number of water sources was incorrect. 'Ofwat's analysis contained a clear error, as five of our sources (as reported in our asset register) relate to abstraction from the G&S Canal. Therefore Ofwat's overhead allocation should have been 5/25ths to the G&S Canal source costs.'

3.132 We disagree. Only the abstraction point from the Gloucester and Sharpness Canal is a water resource asset. The five sources Bristol Water is referring to are the five pump storage reservoirs (two at Purton and three at Littleton) which are network assets, and are not water resource sources.

3.133 In its statement of case, the company presents evidence from a NERA report it commissioned of similar payments which other companies may make. The NERA figure shows that Bristol Water has the highest payments to the Canal & River Trust per property.<sup>127</sup> This provides an **incomplete and misleading picture of the company's own water resources costs and other companies' costs**. There will be many specific water resources costs which other companies incur that Bristol Water either does not incur, or incurs only at a lower level. Other companies incur the costs of maintaining and operating

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<sup>127</sup> Bristol Water, 'Statement of Case', April 2020, p. 127, paragraph 515 and Figure C15.

pumped storage reservoirs (for example South Staffs Water which is a comparable size to Bristol Water), and these costs will be captured in the base model allowances. The only difference is that Bristol Water pays a third party to provide the water resources from the canal (essentially a pumped storage reservoir), with **the third party payment covering those costs that companies with in-house sources will otherwise incur**. However, these in-house costs are included within the base models together with those other companies' explanatory variables. Since these are not discrete purchases of services from a third party, such costs are not easy separately to identify within the water resources controls.

3.134 In fact, depending on the allocation of 'central costs' between canal sources and in-house sources, the canal source could be considered more efficient than in-house solutions (as discussed above, depending on assumptions Bristol Water's unit cost for in-house sourcing could be twice as high as the canal sourcing cost). This highlights inefficiencies in operating and maintaining its own sources, and indicates the opportunity to maximise the third party provision to lower costs. Bristol Water's poor evidence of its granular costs raises the question of missed opportunities for further efficiencies in sourcing its water.

3.135 Overall, the evidence indicates that the Canal & River Trust costs are not the cause for the potentially higher costs or inefficiencies in Bristol Water's operations. The company has not presented sufficiently convincing evidence to demonstrate that the third party canal water purchase is any more costly than the in-house water resource costs that other companies incur.

3.136 **Our base models appropriately capture the company's higher water treatment complexity costs.** In its statement of case, Bristol Water states that the water sourced from the Canal & River Trust, due to its poorer quality, requires higher treatment costs, which more than offset any savings from the use of canal sources including any economies of scale. While Bristol Water notes that the canal abstraction point is outside its area of appointment,<sup>128</sup> we consider that the location outside of Bristol city centre has no impact on any savings. The water abstraction, storage and treatment facilities are co-located and the workforce can be based on this large operational site and not in the city centre.

3.137 Bristol Water also argues that our base models do not capture adequately its higher treatment complexity costs. We note that the company submitted a cost adjustment claim in September 2018 in relation to its treatment complexity costs, but the value of the claim (£6 million) was significantly higher than the

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<sup>128</sup> Bristol Water, 'Statement of Case', April 2020, p. 132, paragraph 536.

£1.192 million treatment complexity cost now quoted in the company's statement of case.<sup>129</sup>

3.138 Following the CMA 2015 redetermination, we added two variables in our base models to capture water treatment complexity. In its statement of case, Bristol Water states that we did not provide analysis to support the view that the company's higher treatment costs are adequately addressed through the base cost models.<sup>130</sup> We disagree. We provided this information in response to the company's September 2018 claim.

3.139 In Bristol Water's September 2018 cost adjustment claim it included two arguments:

- It has a higher proportion of water treated at higher levels of complexity (level 5) compared with the rest of the industry. The company considers that because the Ofwat econometric models use a cost driver '% water treated at levels 3 to 6 of complexity' this does not properly reflect higher costs at complexity level 5, and therefore underestimates its costs.
- The nature of the water that the company sources from the Sharpness Canal is such that the complexity and costs of treating it at Purton and Littleton are much higher than for a typical level 5 treatment works.

3.140 We rejected this claim at the initial assessment of plans, as Bristol Water did not provide sufficiently convincing evidence of the need for an adjustment given the inclusion of the water complexity variable and specification in our econometric models. Bristol Water did not provide any further evidence in its April 2019 revised business plan, or indeed raise substantive issues in its representation on our draft determination in relation to its water complexity costs.<sup>131</sup>

3.141 The percentage of water treated at complexity levels 3 to 6 was chosen for the model as a result of our engagement with the industry. The feedback we received suggested that costs increase significantly at complexity level 3 (rather than lower or higher levels). However, we also used the weighted average complexity level, and we considered that this was sufficient to represent Bristol Water's high proportion of complex treatment within the model.

3.142 Our initial assessment of plans analysis also showed that, on average, Bristol Water's unit cost of water treated is only slightly above the industry average.

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<sup>129</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 129, paragraph 519.

<sup>130</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 129, paragraph 523.

<sup>131</sup> Ofwat, '[PR19 final determinations – Cost adjustment claim feeder model Bristol Water](#)', December 2019, see 'WN\_treatment complexity' tab.

We were not convinced that the company presented sufficient evidence to demonstrate that its cost claim represented efficient treatment costs.

3.143 We also note that the CMA in its 2015 redetermination states that 'there was some specific qualitative and quantitative evidence from Bristol Water that suggested that the water treatment requirements at Purton and Littleton relating to the water from Sharpness Canal may give rise to an efficient level of expenditure that was relatively high compared with other water sources. However, this evidence was limited and other evidence cast doubt on Bristol Water's case for an adjustment.'<sup>132</sup>

3.144 **We made a more favourable allowance to the company and appropriately deducted the annual savings it estimated.** Despite the poor evidence the company presented on its understanding of water resources assets and related costs and efficiencies, we allowed £5.9 million in our final determination (calculated by deducting annual savings of £0.535 million identified by the company). This was an acknowledgement in our in the round assessment that the company challenged its own costs considerably throughout the price review process, including submitting costs lower than the costs it has incurred historically. We also acknowledged the potential for some of the Canal & River Trust costs to be in addition to base costs given the more exogenous nature of these charges relative to alternative arrangements.

3.145 However, we should signal that we are unlikely to make any allowance at PR24 without a substantially better evidenced claim. Furthermore we expect Bristol Water to develop a better understanding of its water resources costs and asset / source allocations.

3.146 In both our 2014 and 2019 final determinations we challenged Bristol Water to gain a better understanding of its own direct (i.e. asset related) water resources costs and to be able to provide a clear justification of its high overall water resources costs when compared to the rest of the industry for future price reviews. **We are concerned that Bristol Water does not have a good understanding of its maintenance and asset operational costs.** This lack of understanding may be contributing to the inefficiencies in its underlying base costs. This is particularly important as its water resources costs are one of the highest in the sector and there is a consequent need to consider alternatives for its customers.

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<sup>132</sup> CMA, 'Bristol Water plc: A reference under section 12(3)(a) of the Water Industry Act 1991', October 2015, page 128, paragraph 4.260, bullet point b.

## Key issue – Enhancement opex

3.147 Our base models include total operating expenditure (opex) in the historical period, part of which relates to enhancement costs. We are unable to exclude enhancement opex from the sample period of our econometric models because historically companies reported all opex together. To avoid customers paying twice to fund enhancement opex (as we also assess total enhancement costs separately), we estimate and deduct an implicit allowance for the enhancement opex included in the historical period of our base econometric models.

3.148 In its statement of case,<sup>133</sup> Bristol Water argues that the implicit allowance deducted for its enhancement opex is £2.2 million higher than the enhancement opex it included in its business plan for the period 2020-25. It further argues that we should have applied a cap where the implicit allowance exceeded the enhancement opex in the company's plan. The company claims this would be appropriate because Bristol Water was also excluded from the sample of companies that we used to estimate the enhancement opex implicit allowance.

3.149 Bristol Water raised this issue in its representation on our draft determination, which we responded to in our final determination.<sup>134</sup> We reiterate our position here. The adjustment we make for enhancement opex is a **reflection of the proportion of enhancement opex included in our historical base sample**, and therefore reflects the proportion of enhancement opex that would be included in our base cost allowances. The adjustment does not challenge the company's proposed enhancement opex investment for the period 2020-25, which is assessed separately in our enhancement framework, and is therefore **unrelated to the company's proposed enhancement opex investment**. Therefore, it would be inappropriate to apply a cap based on the forecast enhancement opex the company proposed in its business plan.

3.150 Bristol Water points out that it was excluded from the sample of companies used to calculate the implicit allowance. In April 2019, we issued a query to all companies requesting detailed information on the enhancement opex in their 2017-18 data. Only six companies reported all relevant enhancement opex in 2017-18, which we used to estimate the implicit allowance. Bristol Water was excluded from the sample as the company did not report its total enhancement

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<sup>133</sup> Bristol Water, 'Statement of Case', April 2020, pp. 133-136, paragraphs 538-554.

<sup>134</sup> Ofwat, 'PR19 final determinations: Securing cost efficiency technical appendix', December 2019, pp. 39-40.

opex for the year. We note that, had we used data from the full set of companies, the estimate of the implicit allowance would have been higher.

3.151 We finally note that we adopted a conservative estimate of the implicit allowance, given our concerns on data comparability and variation in the proportion of enhancement opex across companies.<sup>135</sup>

## **Enhancement costs**

3.152 In its statement of case, Bristol Water does not raise substantial challenges to our assessment of enhancement costs. The only challenge relates to the efficiency factor we applied in our shallow dive assessments.<sup>136</sup>

## **Key issue – Enhancement efficiency**

3.153 Where companies' enhancement proposals are of low materiality (less than 0.5% of the company's water or wastewater totex), for reasons of proportionality we carry out a light touch assessment ('shallow dive'). We do so by applying a company specific efficiency factor, which we derive from the company's performance on the base costs which we model in our econometric models.

3.154 Bristol Water claims that it was wrong of Ofwat to apply a further efficiency challenge in the absence of an efficiency assessment, and that it was wrong to calculate the efficiency challenge using base costs. We do not agree with the company's claim. We consider that the application of the company efficiency factor is a proportionate approach for low materiality areas, where we do not require companies to support the proposed investments with substantial evidence as we do for more material areas. As we expect companies to apply the same level of efficiency to all costing elements of their business plans, we consider that the company's efficiency on modelled base expenditure can reasonably act as a proxy for the efficiency of the overall business plan. Where appropriate, we still carry out additional assessments ('deep dives') for investments that are below but close to the 0.5% threshold, however Bristol Water's proposed expenditure was not material.

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<sup>135</sup> This is discussed in more detail in Ofwat, '[PR19 final determinations: Securing cost efficiency technical appendix](#)', December 2019, pp. 38-39.

<sup>136</sup> Bristol Water, '[Statement of Case](#)', April 2020, pp. 136-139, paragraphs 555-577.



3.155 The company also claims that 'Ofwat had a choice as to the level of efficiency challenge it could apply ranging from zero to 10%'<sup>137</sup> and that 'Ofwat did not explain why it had determined that it was appropriate to apply a 10% efficiency challenge [...] and not some lower figure'.<sup>138</sup> **Bristol Water's claims in this regard are simply wrong.** While we cap the challenge at 10%, we do not apply any discretion in selecting the value of the efficiency challenge between zero and 10%. The efficiency challenge is a result of the company's inefficiency on base costs, calculated as the percentage gap between our view of efficient modelled base costs and the company's view of modelled base costs, which in the case of Bristol Water is 12%.<sup>139</sup> In fact, the cap we adopted means that the efficiency challenge we applied is a conservative estimate, as it is lower than the company's base efficiency challenge.

## **Other issues raised by Bristol Water**

### **Licence fee cap**

3.156 Under Condition N of a company's licence, Ofwat charges an annual licence fee. This reflects the programme of works we consult on as part of our annual forward plan and our agreed annual budget with the Government through the Comprehensive Spending Review. Our price controls do not make specific adjustments for licence fees, which are an element of a company's overhead costs and are reported as part of their base expenditure.

3.157 In its statement of case, Bristol Water states that 'without warning, Ofwat proposed an additional £0.4 million licence fee cost four days after publication of the final determination. This was despite the fact that these costs are outside of our control. Ofwat should have made a corresponding allowance in the final determination'.<sup>140</sup> We do not consider this is an issue.

3.158 In December 2019, we wrote to all companies to provide early notice of our intention to run a consultation on a licence modification to Condition N, which would propose to increase the licence fee cap. The consultation would seek companies' views before any modification was made. We indicated that the proposed increase was to anticipate new areas of expenditure, such as the work on Regulatory Alliance to Promote Infrastructure Development (RAPID),

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<sup>137</sup> Bristol Water, 'Statement of Case', April 2020, p. 139, paragraph 573.

<sup>138</sup> Bristol Water, 'Statement of Case', April 2020, p. 139, paragraph 574.

<sup>139</sup> See Ofwat, final determination models, [company efficiency factor model](#), December 2019.

<sup>140</sup> Bristol Water, 'Statement of Case', April 2020, p.7, paragraph 32, bullet point 5.



and to future proof the cap to any other changes in the coming five year period and beyond.

3.159 We wrote to all companies again in January 2020, to indicate our intention to delay the licence fee cap consultation until the second half of 2020. This will allow us to run the consultation based on the outcome of the multi-year Comprehensive Spending Review which the Government will be carrying out later this year. The Comprehensive Spending Review process will test the appropriateness of our cost forecasts which we are expecting to be higher over the next five years.

3.160 We do not consider it is appropriate of Bristol Water to request an adjustment at this stage. We will run a consultation on the proposed licence change later in the year. In addition, **the proposal does not relate to an automatic increase in the licence fee, but rather to an increase in the cap**. We have been clear with companies that the cap increase is a limit and is not a target Ofwat aims for in agreeing its budget with Government.

## Conclusion

3.161 In our assessment of the efficient cost allowance for Bristol Water, we made use of comparative information and benchmarking wherever possible. This mitigates against the asymmetry of information which we face, and the risk of being subject to one-sided arguments from the company.

3.162 The use of comparative information shows the company to be inefficient on base modelling, and to advance expensive cost claims despite its lack of understanding of its asset base and its opportunities for further efficiencies. The company is also advancing new claims (leakage), despite the numerous occasions it had during the price review to present its arguments, casting doubt over the credibility of the issues raised.

3.163 Overall, we do not find any additional credible and convincing evidence that the company's efficient allowance is understated, and are satisfied that we followed all necessary steps to ensure that the company's cost allowance is appropriate.

3.164 For Bristol Water, we made more favourable allowances in a number of areas such as residential retail, leakage, enhancement, growth, and provided it with an allowance for its Canal & River Trust cost claim despite poor evidence. The remaining cost challenge relates to the company's inefficiency, and will ensure

that customers do not pay for inefficient costs where the company needs to catch up on performance.

3.165 We suggest that the CMA should approach the final determination for Bristol Water in the round, weighing the company's arguments as part of the broader final determination package. If, contrary to this submission, Bristol Water's claims are to be looked at one by one, we recommend that the Canal & River Trust cost claim allowance is disallowed in its entirety as it is not justified on the basis of evidence presented.

## 4. Delivering outcomes for customers

### Summary

- 4.1 **At final determination, we set an outcomes package for Bristol Water which includes 29 performance commitments.** 10 of these performance commitments are common to all companies. Financial outcome delivery incentives (ODIs) will apply to 22 of the company's 29 performance commitments.
- 4.2 **The company has underperformed against several of its financial PR14 performance commitments**, and it is one of five companies to earn a negative overall return on its ODIs during the 2015-19 period. The company has performed poorly on water supply interruptions and is one of the worst performers in the industry on this metric. The company has average performance relative to other companies on leakage<sup>141</sup> as well as on the service incentive mechanism (SIM) for customer service.
- 4.3 In its September 2018 business plan, Bristol Water proposed stretching performance commitment levels for many of its performance commitments. This included a particularly stretching commitment to reduce water supply interruptions to below two minutes by 2024-25. However, we were concerned with how it set ODIs, including proposed deadbands and collars for a large number of its performance commitments which would limit the incentives for service delivery. Our PR19 methodology discouraged the use of deadbands because they remove the incentive for companies to improve their performance and reduce transparency to customers. It also required companies to provide evidence of customer support for applying collars on individual performance commitments.
- 4.4 **Our final determination retains Bristol Water's proposed performance commitment levels where we consider these to be stretching but achievable.** However, we also take account of wider evidence to assess achievability, including representations made by other companies where relevant. For water supply interruptions, we set the company a less stretching target of five minutes by 2024-25, as we assess this to be a realistic upper quartile performance level for the industry.

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<sup>141</sup> This statement reflects measurement of leakage in cubic metres per kilometre of water main per day terms. Further information on companies' relative leakage performance can be found in Ofwat, 'Service delivery report 2018-19', October 2019, pp. 15-16.

**4.5 Our final determination also retains Bristol Water's proposed ODI rates where the company has provided high-quality evidence that these reflect customers' preferences and will incentivise performance improvement.**

For example, we accept the company's evidence in support of its turbidity performance at treatment works performance commitment, and we set ODI rates in line with the company's April 2019 business plan. Where we do not consider the company's evidence to be sufficient, we have intervened to set alternative ODI rates. We have made such ODI rate interventions across a number of Bristol Water's most financially material performance commitments, and we note that the company has accepted our final determination ODI rates with the exception of its mains repairs and per capita consumption performance commitments.

**4.6 One of Bristol Water's most financially material performance commitments is mains repairs, and in its representation on our draft determination, the company argued that our performance commitment levels were unachievable and failed to account for the link between leakage and proactive mains repairs. Other companies also made similar arguments. At final determination, we assessed the evidence presented by companies and made two industry-wide revisions to our approach. Firstly, we amended each company's performance commitment level to reflect the average of its best five years of historical performance, rather than the best three years. Additionally, we uplifted each company's performance commitment level to allow for the increase in proactive mains repairs needed to deliver a step change in leakage reduction. We explain these interventions in greater detail within our introduction to the CMA<sup>142</sup> <sup>143</sup>. **Taken together, these changes significantly reduce the stretch required on mains repairs, particularly in the early years of AMP7.** We note that Bristol Water has accepted the performance commitment levels we set at final determination.**

**4.7 Our final determination also commits Bristol Water to achieve a stretching 21.2% reduction in leakage by 2024-25, and the company will receive enhancement funding to reach its target. This performance commitment, together with the associated financial ODI, will incentivise the company to deliver the level of leakage reduction set out in its Water Resources Management Plan.**

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<sup>142</sup> Ofwat, 'Reference of the PR19 final determinations: Key elements of the methodology appendix', March 2019, pp. 9-12.

<sup>143</sup> Ofwat, 'Reference of the PR19 final determinations: Explanation of our final determination for Bristol Water', March 2019, pp. 32-33.

4.8 Table 4.1 highlights the key issues raised by Bristol Water in its submission in relation to outcomes, together with a summary of our response to each of those points.

**Table 4.1: Key issues on outcomes raised by Bristol Water in its submission**

Key issue in Bristol Water's submission	Summary of our response
<p><b>ODI error.</b> Bristol Water argues that Ofwat has set excessively high underperformance ODI rates for its mains repairs and per capita consumption performance commitments. The company argues that Ofwat has ignored its customers' preferences in setting these ODI rates.</p> <p>Statement of case, pp. 145-152, paragraphs 601-626.</p>	<p>We reject the company's argument that we have set excessively high underperformance ODI rates for these two performance commitments. As explained below, we find some (although not all) of the company's customer research to be poor quality and vulnerable to bias. We have used the high-quality elements of the company's customer research alongside industry comparative data, as well as recognising areas of poor past performance when setting these ODI rates.</p> <p>We provide a more detailed response in paragraphs 4.11-4.41 below.</p>
<p><b>P10, P90 and ODI RoRE estimation.</b> Bristol Water argues that Ofwat has not correctly estimated its exposure to ODI risk under P10 and P90 performance scenarios.<sup>144</sup> The company presents its own assessment of ODI risk exposure, which suggests greater downside risk than Ofwat's final determination assessment.</p> <p>Statement of case, pp. 145-152, paragraphs 601-626.</p> <p>Statement of case, Annex 9, pp. 240-250</p>	<p>We recognise that risk is inherently difficult to assess, but consider our analysis is likely to be more accurate than the unadjusted figures provided by the company. Our assessment of ODI risk is informed by the company's view of P10 and P90 performance, but also makes use of the different ODI risk ranges proposed by other companies. It further recognises that companies have historically overstated downside ODI risk.</p> <p>We provide a more detailed response in paragraphs 4.42-4.51 below. We provide a broader response to the disputing companies' arguments on the estimation of ODI risk exposure and Ofwat's approach to this in chapter 12 and the annex of our 'Outcomes – common issues' document.</p>

## Considerations for the CMA

4.9 Bristol Water has largely accepted the package of performance commitments and ODIs which we set at final determination. The company's statement of case states 'there are many areas where Ofwat's final determination (FD)

<sup>144</sup> The P90 is the performance threshold at which there is only a 10% chance of outturn performance being better. The P10 is the performance threshold at which there is only a 10% chance of outturn performance being worse.

matches or is closely aligned with our plan, including performance commitments (PCs), outcome delivery incentives (ODIs) and resilience investment'.<sup>145</sup> The company has accepted all performance commitment levels set at final determination, stating that these align to its business plan and almost all of the ODI rates set at final determination, except for the ODI rates applicable to mains repairs and per capita consumption. This demonstrates that our overall approach, which was consistent in method and application across ODIs, is acceptable to Bristol Water.

- 4.10 Additionally, we note that Bristol Water's concerns relate specifically to the **incentive rates** applicable to its mains repairs and per capita consumption performance commitments. The company **has accepted other key elements** of these two ODIs which we set at final determination, including the use of outperformance incentives and the timing of ODI payments.

## **Our response to key issues raised by Bristol Water**

### **Key issue - ODI rates for per capita consumption and mains repairs performance commitments**

#### **Explanation of Bristol Water's arguments**

- 4.11 Bristol Water argues that Ofwat has set excessively high underperformance ODI rates for its mains repairs and per capita consumption performance commitments. The company claims that Ofwat has ignored its customers' preferences in setting these ODI rates, leading to material errors of judgement.
- 4.12 In its September 2018 business plan, Bristol Water proposed an underperformance ODI rate of £19,000 per repair per 1,000 kilometres of main for the mains repairs performance commitment. The company calculated this ODI rate based on its estimate of unit cost, and it did not use customers' valuation of marginal benefits in its calculations. The company highlights that its customers' valuation of mains repairs improvement was lower than the unit cost, and it set its ODI rate based on the unit cost because it wanted to maintain a balance of incentives towards long term asset health.
- 4.13 At PR19 final determination, we set an underperformance ODI rate of £40,000 per repair per 1,000 kilometres of main. This was based on the industry

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<sup>145</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 1, paragraph 4.

average proposed underperformance rate (when adjusted to a per customer basis) as we explain further below.

4.14 In its September 2018 business plan, Bristol Water proposed an underperformance ODI rate for per capita consumption of £24,000 per litre per person per day and an outperformance ODI rate of £14,000 per litre per person per day. The company followed the standard PR19 formula to set these rates, using its incremental benefit and incremental cost estimates as inputs.<sup>146</sup> The company calculated its incremental benefit value based on customer willingness to pay valuations for metering and water efficiency (using a combination of stated preferences, deliberative event and slider survey techniques).

4.15 At PR19 final determination, we set an underperformance ODI rate of £67,000 per litre per person per day, and we set an outperformance ODI rate of £56,000 per litre per person per day. As we discuss in paragraphs 4.18-4.35 below, the increase in these ODI rates relative to Bristol Water's business plan reflects how we have used the full willingness to pay estimate customers provided for metering and water efficiency when setting these ODI rates.

4.16 In its statement of case, Bristol Water argues that the ODI rates should be reduced, although not as far as the levels proposed in its September 2018 business plan. It suggests the underperformance ODI rate for mains repairs should be reduced from £40,000 to £23,000 per repair per 1000 kilometres of main. For per capita consumption, the company argues that the underperformance ODI rate should be reduced from £67,000 to £31,000 per litre per person per day, and the outperformance ODI rate should be reduced from £56,000 to £26,000 per litre per person per day.

4.17 It sets out three key reasons for this:<sup>147</sup>

- **Ofwat failed properly to account for its customers' views in setting these ODI rates.** For mains repairs, Bristol Water argues that Ofwat has ignored the customer research evidence presented in its business plan, which shows that customers do not support large incentives for this performance commitment. The company also references customer evidence prepared for its draft determination response, arguing that this demonstrates a lack of customer support for Ofwat's chosen ODI rates. For per capita consumption, Bristol Water disputes Ofwat's use of willingness to pay data

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<sup>146</sup> Our approach to setting ODI rates is set out in our PR19 final methodology and further detail can be found in Ofwat, '[Delivering Water 2020: Our methodology for the 2019 price review; Appendix 2: Delivering outcomes for customers](#)', December 2019, pp. 90-93.

<sup>147</sup> Bristol Water, '[Statement of Case](#)', April 2020, pp.150-152, paragraphs 613-625.

in calculating the ODI rates, arguing that Ofwat's approach leads to double-counting of benefits associated with reduced water consumption. The company also challenges the size of the ODI rates compared to other performance commitments, noting that per capita consumption has high underperformance risk despite being among customers' lowest (ranked) priorities for financial incentives.

- **Ofwat incorrectly estimated the company's exposure to ODI risk, as expressed through the ODI RoRE range, which resulted in the impact of these ODI rates on financeability not being appropriately considered.** Bristol Water disputes the approach which Ofwat has used to calculate the ODI RoRE range across its broader set of performance commitments, claiming that this approach understates the negative skew of its ODI risk profile. The company argues that Ofwat's flawed ODI RoRE estimation approach meant that we did not properly consider the impact of increasing these ODI rates on company financeability.
- **Ofwat's interventions have exacerbated the negative asymmetry of the ODI RoRE range.** As well as disputing Ofwat's ODI RoRE estimation approach, the company argues that its ODI package includes a long tail of downside risk, which is not remunerated elsewhere in the price control framework. The company claims that Ofwat's ODI errors for mains repairs and per capita consumption have exacerbated this negative asymmetry, leaving the company exposed to cost shocks.

## **Our response to Bristol Water's arguments**

### **Ofwat failed to properly account for customers' views in setting ODI rates for mains repairs and per capita consumption<sup>148</sup>**

4.18 As set out in chapter 5 of our 'Outcomes – common issues' document, we consider customer research an important part of the PR19 process. When deciding our interventions, we have considered the quality of the research, how it was used, and we have also taken account of wider evidence not available to customers participating in the research. As we state in our Outcomes final decision document for Bristol Water, published at final determination, '...company research may be detailed but still yield valuations that differ from underlying customer preferences due to the research methodological approaches used – this is manifested in the range of ODI rates we observe

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<sup>148</sup> Bristol Water, 'Statement of Case', April 2020, pp.150-151, paragraphs 614-616.



proposed by companies, and the differences to 2015-20 rates based on similar research on the same customer base.<sup>149</sup>

- 4.19 We have also carefully considered customers' interests when making ODI decisions, and we believe that our ODI rate interventions for mains repairs and per capita consumption are firmly in the interests of Bristol Water's customers. We do not consider that Bristol Water's proposed ODI rates provide sufficient incentive to improve performance, and therefore they do not protect customers' interests. It is particularly important that there is sufficient incentive for the company to improve its mains repairs performance, which has been poor in recent years, and avoid neglecting this metric at the expense of its customers. We now turn to the company's specific arguments on mains repairs and our use of customer research evidence.
- 4.20 At draft determination, we intervened to increase the underperformance ODI rate for mains repairs to £40,000 per repair per 1,000 kilometres of main. Our final determination broadly maintains this ODI rate.<sup>150</sup> We made this intervention for two primary reasons.
- 4.21 **Firstly, the company's proposed ODI rate at draft determination was outside the reasonable range of ODI rates for this performance commitment.** During the initial assessment of plans (IAP), we found dispersion in normalised ODI rates across companies for the same performance commitments and the same increments in performance. This degree of variation reflected large differences in the incremental benefit and incremental cost estimates used to set these ODI rates, which could not be explained through analysis of plausible underlying drivers (such as differences across operating areas in comparative and current performance, water stress, meter penetration and household income). We therefore constructed a reasonable range for all common performance commitments (including mains repairs), which was based on a range around the sector average, on the premise that this would reduce the influence of the unexplained variance. We did this to reduce the risk of setting inappropriately high or low incentive rates because of methodological differences in survey techniques, or marginal cost estimation, leading to ODI rates which depart significantly from underlying customer preferences. In our initial assessment of plans, we asked companies with ODI

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<sup>149</sup> Ofwat, '[PR19 final determinations: Bristol Water – Delivering outcomes for customers final decisions](#)', December 2019, p. 1.

<sup>150</sup> At final determination, we set the company an ODI rate of £40,000 per repair per 1,000 kilometres of main, as reported in Ofwat, '[PR19 final determinations: Bristol Water – Outcomes performance commitment appendix](#)', December 2019, p. 17.

rates outside of the reasonable range to provide further justification and evidence for their proposed rates.

4.22 We intervened in Bristol Water's proposed rate because its rate was below the reasonable range for mains repairs with insufficient rationale to explain this variation. For example, it is not clear why Bristol Water's unit cost for mains repairs would be substantially below that of other companies who proposed rates based on unit costs, and the company has had multiple opportunities to provide such evidence to us. It is important to note that whilst reasonable ranges are just one of several checks we used to challenge companies' ODI rates and inform our ODI interventions, they are used consistently across many performance commitments. Moving away from the use of reasonable ranges as a tool would result in the need to re-evaluate a large number of ODIs.

4.23 **Secondly, we noted that Bristol Water's mains repairs performance in recent years has been poor relative to its target levels of performance.**

This means that the company has a credible incentive to propose a low ODI rate, due to the higher risk that it could underperform during the 2020-25 period. As noted above, the company needs a meaningful disincentive against neglecting this performance commitment, as this will encourage the company to take the actions needed to improve performance.

4.24 Given these findings, we had significant concerns about the rationale for Bristol Water's proposed rates and the extent to which customers would be protected from continued poor performance. We therefore intervened to raise the ODI rate to £41,000 per repair per 1,000 kilometres of main, which was the average ODI rate for the industry. We considered this to provide a strong incentive to meet the performance commitment levels we set.

4.25 In its response to the draft determination, the company provided further customer research evidence to justify its position that customers do not consider mains repairs a high priority for incentivisation relative to other performance commitments and that they do not support the level of incentives set at draft determination. We reviewed this research at final determination, and found that the company had used a leading question to ask its customers whether they supported the level of incentives set at draft determination. Specifically, the company asked customers: 'Do you agree with Ofwat's view that mains burst should incur a significantly large penalty? Is it as important as supply interruptions, water quality and leakage?'<sup>151</sup> We do not consider this a high-quality research method, and we therefore consider it inappropriate to rely

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<sup>151</sup> Ofwat, 'PR19 final determinations: Bristol Water – Delivering outcomes for customers final decisions', December 2019, p. 9.

heavily on this research result when setting the ODI rate for this performance commitment. Moreover, it is particularly difficult to obtain reliable customer views on asset health measures such as mains repairs. We noted this in our Outcomes policy appendix to the final determination, which states 'we consider that there are significant challenges involved in obtaining accurate customer valuations for asset health performance commitments'.<sup>152</sup>

- 4.26 **Taking all of the above evidence into account, we continue to have significant concerns about the quality of the company's customer research evidence for mains repairs, and we do not consider it to be an appropriate basis for setting ODI rates for mains repairs.** We consider that our final determination ODI rates, which are significantly higher than those proposed by the company, are likely to more strongly incentivise the company to improve in an area in which it has past performance issues. This is in customers' interests and will provide the necessary financial protection for customers should the company fail to meet its performance commitment.
- 4.27 We now turn to the company's specific arguments on per capita consumption and our use of customer research evidence.
- 4.28 Bristol Water's statement of case references customer research it conducted regarding metering and water efficiency, which it used to derive customers' willingness to pay values. It also used that research to calculate its proposed ODI rates for its meter penetration and per capita consumption performance commitments. The company calculated a single willingness to pay for 'metering and water efficiency'. The company allocated 75% of this customer willingness to pay to set its meter penetration ODI rate, and used the remaining 25% of customer willingness to pay to set its per capita consumption ODI rate. The company took this approach because it claims that the bulk of water efficiency savings for customers will come from increasing meter penetration, as opposed to ongoing water efficiency promotions. Splitting the willingness to pay in this way avoided double counting.
- 4.29 At final determination, we intervened to change ODI rates for both the meter penetration and the per capita consumption performance commitments. Rather than applying Bristol Water's proposed ODI rates for meter penetration, which were based on customers' willingness to pay, we instead designated meter penetration as a scheme-based performance commitment and set its ODI rates on a cost recovery basis, in line with our broader approach to scheme-based performance commitments. This is because the rollout of water meters is a

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<sup>152</sup> Ofwat, 'PR19 final determinations: Delivering outcomes for customers policy appendix', December 2019, p. 100.

delivery scheme, for which specific funding for efficiently incurred costs is provided through the price control. A cost-recovery based underperformance ODI rate ensures that customers are compensated for the allowance provided to the company to deliver the scheme, in the event that the scheme is only partially (or not at all) delivered.

- 4.30 Given that the ODI rates set for meter penetration do not incorporate a willingness to pay component, we used 100% of the company's willingness to pay valuation for water efficiency in order to set ODI rates for per capita consumption, rather than following the company's proposed allocation. We took this approach for a number of key reasons.
- 4.31 **Firstly, in the absence of a willingness to pay component in the meter penetration ODI rates it is right to apply 100% of the company's willingness to pay valuation to per capita consumption**, as otherwise the incentive rates would undervalue performance against this outcome relative to customer preferences. We disagree with the company's claim that this approach leads to double counting of customers' willingness to pay, as we have used customers' willingness to pay only to set the per capita consumption ODI rates. Our intervention is clearly not overriding customer preferences, but rather ensuring that their valuations are allocated to the appropriate performance commitments, so as to incentivise appropriate behaviour in line with customer preferences.
- 4.32 **Secondly, per capita consumption is a customer focused outcome measure, which is common to all companies at PR19**. This performance commitment will therefore represent one of the key metrics through which companies' relative performance will be assessed over the coming years. By contrast, meter penetration is an input measure which will contribute towards the delivery of improved water efficiency. It is right to ensure that per capita consumption is sufficiently incentivised, as this will focus the company's attention on delivering the water efficiency outcome which customers care about. It will also ensure that increasing meter penetration is delivered with this outcome in mind, rather than for its own sake.
- 4.33 **Thirdly, although the company provides evidence that customers rank per capita consumption as a relatively low priority area for incentivisation, this is not consistent with the company's detailed willingness to pay research**, from which we directly take the values as inputs for the ODI rate. It is not clear why more weight should be given to the prioritisation research than the multiple willingness to pay studies, which Bristol Water is keen that we rely on elsewhere. It is also not possible directly to derive estimates of valuations to

use in ODI rates from a simple prioritisation ranking, whereas it is possible from the willingness to pay datasets.

4.34 **Overall, we disagree with the company's position that ODI rates for per capita consumption should be reduced based on its customers' views.** We have used the company's customer research evidence to inform the ODI rates we have set, and we have ensured that there is no overlap between the incentives for per capita consumption and meter penetration.

4.35 **We consider that our final determination ODI rates for meter penetration and per capita consumption are better aligned to customers' preferences and interests than Bristol Water's own proposals.** This is because it is in customers' interests for Bristol Water to provide full compensation should the company fail to deliver its funded meter penetration commitments. It is also in customers' interests to set strong incentives for per capita consumption, as this will keep Bristol Water focused on improving water efficiency and ensure that the company delivers its meter penetration commitment with this objective in mind.

**Ofwat incorrectly estimated the company's exposure to ODI risk, as expressed through the ODI RoRE range, which resulted in the impact of mains repairs and per capita consumption ODI rates on financeability not being appropriately considered<sup>153</sup>**

**Ofwat's interventions to mains repairs and per capita consumption have exacerbated the negative asymmetry of the ODI RoRE range<sup>154</sup>**

4.36 We now respond to the company's argument that we have not correctly estimated Bristol Water's exposure to ODI risk, meaning that we have not properly considered the impact of our interventions to mains repairs and per capita consumption on the company's financeability. The company also makes a related argument that our interventions to mains repairs and per capita consumption have exacerbated the negative asymmetry of its ODI RoRE range.

4.37 Whilst the company uses these arguments principally to challenge the ODI rates which we set for mains repairs and per capita consumption, it also challenges our ODI RoRE estimation approach from a broader perspective. We provide a response to the company's broader arguments in the 'Key issue – ODI RoRE estimation approach' section below (paragraphs 4.42-4.51), and

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<sup>153</sup> Bristol Water, 'Statement of Case', April 2020, pp.151-152, paragraphs 617-623

<sup>154</sup> Bristol Water, 'Statement of Case', April 2020, pp.151-152, paragraphs 617-623

also in chapter 11 and the annex of our 'Outcomes – common issues' document. Our response in this section focuses on the aspects of Bristol Water's arguments that relate to mains repairs and per capita consumption.

4.38 An important aspect of setting ODIs involves quantifying the balance of financial risks that they present for companies under different performance scenarios. At PR19, we required companies to estimate ODI RoRE ranges which capture the size of ODI payments under upside and downside performance scenarios, expressed as a return on regulated equity (RoRE). The upside scenario reflected P90 performance, and the downside scenario reflected P10 performance.<sup>155</sup> This provided a standardised way of measuring ODI risk across different companies, but to ensure full comparability, we needed to ensure that companies' upside and downside performance scenarios were sufficiently consistent. We also needed to ensure that companies' ODI RoRE estimates were derived in a comparable manner. We therefore scrutinised companies' ODI RoRE projections and formed our own estimates of ODI risk.

4.39 During the price review, we followed a logical approach to estimating the downside and upside risk associated with each ODI. As we highlight in the 'Key issue – ODI RoRE estimation approach' section below (paragraphs 4.42-4.51), our approach involved using the company's evidence to inform our estimated distribution of P10 and P90 performance for each performance commitment. Estimating ODI risk is necessarily a subjective exercise, as it requires proposing a range for potential performance several years into the future, using a mixture of historical performance for the company and the industry, and judgement on how companies may reasonably be expected to improve over time. At PR19, we observed how companies followed a range of different approaches to estimate upside and downside ODI risk. It was therefore essential for us to scrutinise companies' evidence and form our own approach to estimating P10 and P90 performance, which could be applied consistently across companies. As we describe in the 'Key issue – ODI RoRE estimation approach' section below, we set out our approach transparently, and followed a clear and relatively simple set of rules designed to adjust appropriately across the industry where we intervened.

4.40 For both mains repairs and per capita consumption, we made adjustments to Bristol Water's P10 performance levels after conducting comparative analysis against other companies. As we set out in our final determination, 'to estimate

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<sup>155</sup> The P90 is the performance threshold at which there is only a 10% chance of outturn performance being better. The P10 is the performance threshold at which there is only a 10% chance of outturn performance being worse.

P10 performance levels, we first adjust the P10 performance levels for changes in the performance commitment levels between business plan submission and final determination. We then conduct reasonable range analysis on the ratio of P10 performance levels to performance commitment levels, and [for both mains repairs and per capita consumption for Bristol Water] we determine that the P10 performance level is outside the reasonable range. We therefore increase the stretch of the P10 performance levels to align them to the reasonable range outer bound one standard deviation away from the mean'.<sup>156</sup> This is fully consistent with our overall approach to P10 and P90 levels. In other words, we consider that, when compared to its performance commitment levels and to other companies' P10 estimates, Bristol Water is being unduly pessimistic in its P10 estimates for these two performance commitments, and the company has not provided a credible explanation for its pessimistic projections. As such, we have adjusted Bristol Water's P10 and P90 estimates to be somewhat less pessimistic (though – leaning in Bristol Water's favour – still more pessimistic than those applied to most companies). We set out further explanation of our P10 and P90 adjustments and the reasons for them in the annex of our 'Outcomes – common issues' document.

- 4.41 We consider that our approach to estimating P10 and P90s is appropriate, and enables us to calculate estimates which can be compared across companies on a transparent and consistent basis. Whilst our estimates differ from the company's own view, there are good reasons for these differences and estimation in this context is an inexact science. The P10 and P90 estimates we reached for Bristol Water for per capita consumption and mains repairs are plausible and our broader assessment of Bristol Water's risk profile is only moderately different from that stated by the company. As such, and contrary to Bristol Water's claims, we consider that our approach to assessing the risk profile for outcomes (and in turn financeability) at final determination was appropriate.

## **Key issue – ODI RoRE estimation approach**

### **Explanation of Bristol Water's arguments**

- 4.42 Bristol Water argues that Ofwat has not correctly estimated its exposure to ODI risk under P10 and P90 performance scenarios. In its statement of case, the company presents its own assessment of ODI risk exposure at both the

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<sup>156</sup> Ofwat, '[PR19 final determinations: Bristol Water – Delivering outcomes for customers final decisions](#)', December 2019, pp. 28-29.



performance commitment and Outcomes package level, which suggests greater downside risk than shown in Ofwat's final determination assessment.<sup>157</sup> We respond to the implications of this argument for mains repairs and per capita consumption above.

4.43 Whilst the company uses this argument principally to challenge the ODI rates we set for mains repairs and per capita consumption, it also challenges our ODI RoRE estimation approach from a broader perspective. We describe and respond to the company's two broader arguments below.

4.44 Firstly, Bristol Water argues that Ofwat failed to capture the impact of changing performance commitment levels on P10 and P90 ODI payments, instead applying top-down adjustments to P10 and P90 performance levels to match the changes in performance commitment levels. Bristol Water disputes this approach and it presents evidence for an alternative set of P10 and P90 performance levels within its statement of case.<sup>158</sup> The company explains that these P10 and P90 estimates are different from those it proposed in its response to our draft determination, and they reflect changes in the design of ODIs at final determination.

4.45 Secondly, in Annex 9 to its statement of case, Bristol Water challenges Ofwat's perceived position that companies are unlikely to underperform significantly against their ODI packages because of the potential for innovation and companies' ability to manage interactions between their ODIs. Whilst companies have outperformed against their ODI expectations at PR14, Bristol Water argues that it is impossible to speculate what innovation will achieve in 2020-25, and therefore this historical evidence on ODI performance should not be used to support a downside skew in the predicted ODI RoRE range. At final determination, we used companies' PR14 ODI performance to inform our estimates of ODI risk, and this included an adjustment to ODI RoRE ranges to account for historical pessimism bias in companies' ODI risk projections.<sup>159</sup> The company implicitly criticises this approach, stating 'we do not believe a narrower or skewed RoRE range for ODIs should be presented based on these historic relationships'.<sup>160</sup>

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<sup>157</sup> Bristol Water, '[Statement of Case](#)', April 2020, Annex 9, pp. 240-250.

<sup>158</sup> Bristol Water, '[Statement of Case](#)', April 2020, Annex 9, pp. 240-250.

<sup>159</sup> At final determination, we used asymmetric scaling factors to derive P10 and P90 ODI performance estimates, which aims to partially correct for pessimism bias in companies' projections. Further information can be found in Ofwat, '[PR19 final determinations: Delivering outcomes for customers policy appendix](#)', December 2019, pp. 172-176.

<sup>160</sup> Bristol Water, '[Statement of Case](#)', April 2020, Annex 9, p. 245, paragraph 31-34.

## Our response to Bristol Water's arguments

- 4.46 In relation to Bristol Water's first argument, we disagree with the company's view that our approach to estimating P10 and P90 performance is inappropriate. The company presents its own view of P10 and P90 performance in its statement of case, but we did use the company's business plan P10 and P90 estimates to inform our view of P10 and P90 performance. We made this point in the Outcomes policy appendix published at final determination, which states 'We continue to use company estimates of P10 and P90 performance from April business plans (February submissions for fast track companies) as a starting point for our risk range'.<sup>161</sup>
- 4.47 We consider that we made appropriate adjustments to the company's P10 and P90 performance estimates during PR19, which took account of the performance commitment levels which Bristol Water proposed, together with our own view of stretching but achievable performance. It would have been inappropriate for us simply to trust companies' judgement without forming our own assessments of P10 and P90 performance, especially because outturn evidence from PR14 suggests that companies tend to overstate downside risk and understate their ability to improve performance.
- 4.48 We took a considered approach for when and how to adjust company's proposed P10 and P90 performance levels. We set out our approach transparently, and followed a clear and relatively simple set of rules designed to adjust appropriately across the industry where we intervened. We carefully considered our adjustments to P10 and P90 levels where we intervened on performance commitment levels, to make sure we understood the implications for companies' ODI risk profiles. Our approach to adjusting P10 and P90 estimates is detailed in Section 7.1 of the Outcomes policy appendix published at final determination.<sup>162</sup> Where we judged that Bristol Water's estimates of P10 and P90 performance were inaccurate after adjusting for changes to performance commitment levels, we formed an alternative view based on comparative assessments, historical and forecast performance and wider evidence.
- 4.49 We provide our broader response to disputing companies' concerns about the approach which we used to estimate ODI risk at PR19 in the annex of our 'Outcomes – common issues' document.

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<sup>161</sup> Ofwat, 'PR19 final determinations: Delivering outcomes for customers policy appendix', December 2019, pp. 162-163.

<sup>162</sup> Ofwat, 'PR19 final determinations: Delivering outcomes for customers policy appendix', December 2019, pp. 161-165.

- 4.50 In relation to Bristol Water's second argument, **we disagree with the company's interpretation of our position on innovation and future performance**. In our Outcomes policy appendix published at final determination, we highlighted that companies have a credible incentive to overstate the downward skew of their ODI package, in order to secure less stretching performance commitments and incentives, and do not have the benefit of comparative information. We also presented evidence that companies' outturn performance in the 2015-20 period has in general been at the upper end of the ODI risk range estimated in PR14.<sup>163</sup> Our primary conclusion from this was not that innovation will definitely lead to companies outperforming their ODI expectations in the future, but that companies have historically underestimated their overall ability to meet performance commitment targets. This in turn suggests that companies' view of ODI risk at PR14 was too pessimistic on average. This is not surprising, given that companies have credible incentives to underestimate future performance during the price review process. We also note that at PR19, there is increased scope for companies to earn outperformance payments when they exceed their performance commitment levels, due to changes such as reduced use of underperformance-only ODIs and reduced use of outperformance deadbands. Regardless of uncertainty over the nature and pace of future innovation, we consider that this evidence collectively supports an adjustment to ODI risk ranges for companies' demonstrated pessimism bias.
- 4.51 Additionally, we consider that Bristol Water's argument is weak on its own terms. Whilst we agree that innovation cannot be predicted with certainty, we note that water companies have outperformed their PR14 ODI expectations **at a sectoral level**, with no companies performing towards the low end of their estimated PR14 ODI range. Insofar as this performance is the result of innovation, there would need to be a **sustained sector-wide deterioration** in innovation for this trend to be reversed in 2020-25. Whereas some companies are likely to underperform against others in terms of innovation and management performance, we consider that a sustained sector-wide deterioration is unlikely (particularly given the new £200m of direct innovation funding we are providing in PR19), and therefore it would be inappropriate to reflect this scenario in our central estimates for ODI RoRE performance.

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<sup>163</sup> Ofwat, 'PR19 final determinations: Delivering outcomes for customers policy appendix', December 2019, p. 162.

## Conclusion

- 4.52 Bristol Water has accepted most elements of the outcomes package that we set for the company at final determination, including all performance commitment levels. We welcome the company's commitment to deliver stretching performance improvements over the 2020-25 period. The company has also accepted most of the ODIs we set at final determination, with the exception of ODI rates for its mains repairs and per capita consumption performance commitments.
- 4.53 In conclusion, we disagree with the company's assertion that our ODI rate interventions for mains repairs and per capita consumption do not reflect its customers' preferences. In the above response, we show that we have taken into account Bristol Water's customer research, and we have directly used this to inform ODI rates where we consider this research to be high-quality. We have also been careful to protect customers' interests, rather than relying solely on customer research evidence. We have therefore challenged research which lacks robustness, and considered other sources of evidence in setting ODI rates, such as comparative analysis and historical company performance. We consider that our ODI rates better protect customers' interests than Bristol Water's proposals.
- 4.54 We also dispute the company's view that our estimation of ODI risk during PR19 was incorrect. The estimation of P10 and P90 performance levels is an inexact science and we have followed a transparent, rules-based approach to ODI risk measurement which uses companies' evidence as a starting point. As explained above, our final determination ODI RoRE estimates account for strong evidence that companies have historically overstated downside ODI risk and underestimated their ability to improve performance. We consider that our ODI risk estimates credibly capture future performance expectations for each company, including Bristol Water.

## 5. Overall stretch across costs and outcomes

### Summary

- 5.1 Our aim in the final determinations was to set a stretching but achievable level of overall challenge for the companies. If a final determination is too generous, a company will end up overfunded, and investors will enjoy high returns without appropriate incentives to deliver for customers. If the final determination is too harsh, a company may end up underfunded and investors may receive less than a fair return. In our final determination we considered the overall stretch on costs and outcomes individually and together, in the round.
- 5.2 Bristol Water raises three points about the overall level stretch across costs and outcomes. The first is what it terms the **service level** error where it claims we failed to account for differing levels of service in the base models. The company attempts to control for service quality level by reallocating over £1.5 billion of forecast enhancement costs to the base models, mixing historical and forecast data, which is contrary to any principle of robust modelling. The **approach taken by the company is not credible**, and we do not find any additional evidence that the company's efficient allowance is understated.
- 5.3 The second is the **leakage** error, where the company states that Ofwat's base cost models make insufficient cost allowance for its leakage expenditure. We consider that our approach to leakage provides an adequate allowance. This includes the assessment of alternative base model specifications containing leakage variables, and a full allowance of the company's requested enhancement leakage cost (£4.8 million). The company **does not validate the £13 million request with analysis** of its own cost data or leakage management activities.
- 5.4 We discuss both these issues in chapter 3 above, and in more detail in chapters 3 and 5 of the 'Cost efficiency – common issues' document.
- 5.5 The third area that Bristol Water raises in connection with the overall stretch across costs and outcomes concerns our evidence that companies can perform well on both **costs and outcomes**. This is addressed in the 'Key issue – Company level relationship between cost efficiency and outcome performance' section below, and in further detail in chapter 7 of our 'Introduction and overall stretch' document.

5.6 Table 5.1 summarises the key issues raised by Bristol Water in its statement of case in relation to overall stretch across costs and outcomes, together with a summary of our response. We continue to consider that our overall stretch across costs and outcomes is appropriate, and there is no case to provide Bristol Water with additional funding.

**Table 5.1: Key issues on the overall stretch across costs and outcomes raised by Bristol Water in its submission**

Key issue in Bristol Water's submission	Summary of our response
<p><b>Company level relationship between cost efficiency and outcome performance.</b> Bristol Water states that Ofwat's evidence of a weak correlation between cost efficiency and service quality does not support the proposition that better outcomes could be associated with lower costs and that forward looking or forecast changes in performance indicate that higher costs are associated with higher service quality.</p> <p>Statement of case, p. 202, paragraph 45.</p>	<p>We accept that there is a weak positive correlation between cost efficiency and service quality. However we continue to consider that this shows that it is possible for companies to perform well on both costs and outcomes. Unlike that suggested by companies, we do not observe an inverse relationship between historical cost efficiency and good outcome performance.</p> <p>We do not consider that forward looking efficiency rankings are a reliable indicator of future cost efficiency, since they reflect water companies' proposals for expenditure which can often be very different to actual expenditure. We provide a more detailed response in paragraphs 5.17-5.31 below.</p>
<p>Bristol Water states that our analysis is skewed by the large interruption at Willsbridge in 2017-18, and the leakage measure does not reflect Bristol Water upper quartile performance on leakage, in particular that Bristol Water is industry leading when normalised by number of properties served.</p> <p>Statement of case, p. 202, paragraph 46.</p>	<p>We have kept consistency with the metrics that were used in the service delivery report<sup>164</sup> as well as the way in which the metrics have been reported during this price control. We accept that Bristol Water is a good performer on leakage on a per property basis and we have recognised this with additional leakage funding as part of the price control.</p> <p>We provide a more detailed response in paragraphs 5.24-5.25 below.</p>

## Considerations for the CMA

5.7 In our final determination we accepted in full Bristol Water's request for an additional £4.8 million leakage enhancement allowance. The company accepts all of our performance commitments. However in its statement of case it now requests an additional £14-15 million to account for improving service levels

<sup>164</sup> Ofwat, 'Service delivery report data – 2018-19', October 2019.

and a further £13 million to account for additional leakage expenditure. As set out in chapter 3 above, we consider that neither of these claims is justified.

- 5.8 In its statement of case, Bristol Water suggests that our analysis of the **company level relationship between cost efficiency and service quality** is flawed. As set out below, we reject this argument and continue to conclude that **at a company level the analysis shows a positive correlation between cost efficiency and service quality**. And contrary to what some of the disputing companies including Bristol Water have suggested, we do not observe an inverse relationship between service quality and cost efficiency. We therefore continue to consider that 'better outcome performance should not necessarily increase cost'. We acknowledge that improving outcome performance could impose costs on companies. Nevertheless, some companies have managed to achieve both high service quality and cost efficiency. Indeed, a number of companies are delivering better service quality and lower costs than Bristol Water. In summary, the potential impact on costs should not be used as a cover for companies such as Bristol Water achieving a lower level of service quality than their peers.
- 5.9 It should be emphasised that this is only one element of our analysis of the overall stretch across costs and outcomes that we set out in our final determinations. Other elements are set out below. In its statement of case, and beyond the points raised above, Bristol Water does not seek to challenge these other elements of our final determination. We therefore ask the CMA to reject Bristol Water's arguments on overall stretch on costs and outcomes, and the accompanying request for additional funding to improve service quality.
- 5.10 In our final determination we used company forecasts of the forward looking upper quartile, evidence of historical improvements and benchmarking across companies to set stretching but achievable performance commitment levels. We consider our performance commitment levels to be achievable for Bristol Water. For example, Bristol Water forecast a water supply interruptions 2024-25 performance commitment level of 1 minute and 48 seconds in its business plan.<sup>165</sup> This is well below the five minutes we included in our final determination.

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<sup>165</sup> Bristol Water, '[Bristol Water for All](#)', September 2018, p. 13.



- 5.11 We stated that some companies achieved good performance on both outcomes and cost efficiency and provided examples of companies performing in the upper quartile on costs and outcomes.<sup>166</sup>
- 5.12 In PR14 we did not provide additional funding to achieve historic upper quartile performance commitments. Most companies achieved their PR14 upper quartile common performance commitments as well as outperforming on their upper quartile based cost allowances.<sup>167</sup>
- 5.13 Improvements in service quality and outcome performance were not fully captured in frontier shift efficiency estimates. Based on historical performance we also expected some improvement in quality over time without increasing cost. We allowed enhancement costs where there was good evidence that further improvements in service require an efficient company to incur higher costs.
- 5.14 The move towards a forward looking upper quartile applies only to one of the most comparable common outcomes (out of 10 common outcomes for Bristol Water as it is a water only company) is a modest increase in the level of stretch compared to commitments set at PR14 (particularly compared to the 29 performance commitments BRL has in total). In our PR19 methodology we stated that '[a]verage performance now will not equate to efficient performance in the future' and we are not expecting to provide companies with additional funding to meet this challenge.<sup>168</sup> We carefully considered the level of stretch implied by the forward looking data, taking account of historical improvement. For water supply interruptions, we reduced the stretch taking account of the historical evidence and companies' evidence.
- 5.15 For leakage in our PR19 methodology, we challenged companies to consider reducing leakage by 15% in their business plans, at no additional cost to customers.<sup>169</sup> We accepted that the 15% reduction in leakage was likely to be an additional challenge to some companies compared to their historical performance, however it was a challenge that companies had voluntarily accepted. We considered that the scale of technological change over recent years should allow companies to reduce leakage efficiently. We provided

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<sup>166</sup> Ofwat, '[PR19 final determinations: Overall stretch on costs, outcomes and cost of capital policy appendix](#)', December 2019, Chapter 5.

<sup>167</sup> Ofwat, '[PR19 final determinations: Overall stretch on costs, outcomes and cost of capital policy appendix](#)', December 2019, p. 38, Table 10.

<sup>168</sup> Ofwat, '[Delivering Water 2020: Our final methodology for the 2019 price review](#)', December 2017, p. 57.

<sup>169</sup> Ofwat, '[Delivering Water 2020: Our final methodology for the 2019 price review](#)', December 2017, p. 54.

additional funding to reduce leakage for companies that would be operating beyond the forecast upper quartile levels, including to Bristol Water.<sup>170</sup> Our frontier shift efficiency challenge took into account the increased challenge on outcomes performance, in particular the reduction in leakage.<sup>171</sup>

- 5.16 Overall we considered that the relaxation of our frontier shift efficiency challenge, the reduced level of catch up efficiency compared to PR14, the reduced level of stretch on performance commitments together with the additional £200 million of funding for innovation included in the price control, provide all companies with a reasonable opportunity to meet both the service challenge from stretching outcomes performance commitments and our cost efficiency challenge.<sup>172</sup>

## **Our response to key issues raised by Bristol Water**

### **Key issue - Company level relationship between cost efficiency and outcome performance**

- 5.17 At final determination, we compared the historical cost and outcomes data to analyse the relationship between cost efficiency and service quality performance. We plotted our estimates of cost efficiency against service quality rankings of companies. Service quality was based on a combined average ranked score across the measures that we use in the service delivery report: leakage, water supply interruptions, water quality contacts, pollution incidents, internal sewer flooding and the service incentive mechanism.
- 5.18 The data did not suggest that there is a negative relationship between historical cost efficiency and good outcome performance. Rather at a company level the data suggested that better outcomes could be associated with lower costs. We stated that this could have reflected better managed companies performing well on both costs and outcomes. For example, both Portsmouth Water and Wessex

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<sup>170</sup> Ofwat, 'PR19 final determinations: Overall stretch on costs, outcomes and cost of capital policy appendix', December 2019, pp. 8 and 48.

<sup>171</sup> Ofwat, 'PR19 final determinations: Overall stretch on costs, outcomes and cost of capital policy appendix', December 2019, pp. 3 and 8.

<sup>172</sup> Ofwat, 'PR19 final determinations: Overall stretch on costs, outcomes and cost of capital policy appendix', December 2019, pp. 8-9.

Water demonstrated that they were able to deliver high quality and high efficiency at the same time.<sup>173</sup>

5.19 In its statement of case, Bristol Water raised a number of issues on the relationship between good cost efficiency and service quality performance.<sup>174</sup> We discuss each of these below. Overall we have amended our analysis so that it is undertaken separately for water, wastewater and retail expenditure. This continues to show a positive correlation between cost efficiency and service quality.

### **Correlation between service quality and cost efficiency**

5.20 Bristol Water states that the weak positive correlation between historical service quality and cost efficiency is insufficient to justify Ofwat's statement that better outcomes could be associated with lower costs.<sup>175</sup>

5.21 We accept that, at a company level, there is a weak positive correlation between cost efficiency and service quality. We do not observe an inverse relationship between service quality and cost efficiency. We therefore continue to consider that 'better outcome performance should not necessarily increase cost'.<sup>176</sup>

5.22 It is important to emphasise that for an individual company, improving outcome performance may impose costs. However, the analysis shows that a number of companies are delivering better service quality and lower costs than Bristol Water. **We do not consider that the impact on cost efficiency should be used as an excuse for companies not to achieve the same level of service quality as their peers.**

5.23 Further detailed analysis is provided in Chapter 7 of our 'Introduction and overall stretch' document.

### **Use of service quality data**

5.24 Bristol Water states that the supply interruptions measure used by Ofwat is skewed by the large interruption at Willsbridge in 2017-18, and that the leakage

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<sup>173</sup> Ofwat, '[PR19 final determinations: Overall stretch on costs, outcomes and cost of capital policy appendix](#)', December 2019, p. 39, Figure 7.

<sup>174</sup> Bristol Water, '[Statement of Case](#)', April 2020; Annex 4, pp. 202 and 208-212, paragraphs 45-46 and 64-67.

<sup>175</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 202, paragraph 45.

<sup>176</sup> See chapter 7 of our 'Introduction and overall stretch' document.

measure does not reflect Bristol Water's upper quartile performance on leakage, in particular that Bristol Water is industry leading when normalised by number of properties served.<sup>177</sup>

5.25 We have kept consistency with the metrics that were used in the service delivery report<sup>178</sup> as well as the way in which the metrics have been reported during this price control. We do not consider that particular events for an individual company should be excluded. This ensures consistency across companies. We accept that Bristol Water is a good performer on leakage on a per property basis and we have recognised this with additional leakage enhancement allowance as part of the price control.

### **Use of wholesale water only rankings**

5.26 Bristol Water states that we should consider wholesale water only rather than wholesale water, wastewater and retail costs and service quality combined.<sup>179</sup>

5.27 We agree that considering wholesale water, wholesale wastewater and retail rankings separately might provide a better indication of performance. We present this analysis in Figures 7.1 to 7.6 in our 'Introduction and overall stretch' document. Each of these rankings show the same positive correlation as the total cost and performance rankings. Bristol Water states that if we remove the best and worst performing companies the shape of the slope changes.<sup>180</sup> Clearly with an assessment of 15 data points removing two observations that fit the line is going to impact on the slope of the curve. Bristol Water gives no reasons for the removal of these observations. We continue to consider that we should use the complete dataset with no exclusions as these companies are not outliers. Given that this relationship holds across water, wastewater and retail we continue to consider that it is valid.

### **Use of forecast rankings**

5.28 **Bristol Water states that we should consider both historical and forecast rankings** and that the forward looking ranking inverts the slope implying more 'efficient' companies have lower service quality.<sup>181</sup>

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<sup>177</sup> Bristol Water, 'Statement of Case', April 2020, p. 202, paragraph 46.

<sup>178</sup> Ofwat, 'Service delivery report 2018-19', October 2019.

<sup>179</sup> Bristol Water, 'Statement of Case', April 2020, p. 208, paragraphs 64-65.

<sup>180</sup> Bristol Water, 'Statement of Case', April 2020, p. 208, paragraphs 65.

<sup>181</sup> Bristol Water, 'Statement of Case', April 2020, p. 209, paragraphs 66.

5.29 We do not consider that forward looking efficiency rankings are a reliable indicator of future cost efficiency as they reflect water companies' proposals for expenditure which can often be very different to actual expenditure. We note that in PR14 Bristol Water's business plan was 20% above its final allowance from the CMA<sup>182</sup> and in the first four years of the price control (2015-2019) it has outperformed this allowance by 4.2%.<sup>183</sup> We are concerned about Bristol Water's suggestion that companies with lower quality could be receiving higher enhancement allowances from regulatory obligations to recover shortcomings in past maintenance.<sup>184</sup> We do not consider this to be the case, and that is why we undertook a detailed assessment of enhancement cost proposals.

### Changes in rankings over time

5.30 Bristol Water states that we should consider the forecast change in expenditure and service, and that this indicates that greater increases in spend were associated with a greater shift in relative performance.<sup>185</sup>

5.31 While changes in rankings over time could in theory be informative, historical cost and service quality rankings can be impacted by a range of factors in any one year. We therefore consider it is more robust to consider rankings averaged over a reasonable period of time, particularly cost efficiency which can be affected by timing of expenditure across individual years. Consistent service quality rankings can only be identified over a five-year period. We do not consider that five years provides a sufficient period of time to both: average rankings across a sufficient period of time; and allow for two distinct periods to allow the change in rankings to be examined. Additionally, for the reasons set out in paragraph 5.29 above, we do not consider that forecast expenditure and service quality performance are reliable indicators of outturn. We therefore we do not consider that examining changes in rankings over time would be robust.

## Conclusion

5.32 Bristol Water suggests that our analysis of the company level relationship between cost efficiency and service quality is flawed. As set out above and in chapter 7 of our 'Introduction and overall stretch' document' there are significant errors in Bristol Water's assessment. We continue to consider that at a company level there is a positive correlation between cost efficiency and

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<sup>182</sup> Ofwat, '[Reference of the PR19 final determinations: Explanation of our final determination for Bristol Water](#)', March 2020, Table 2.2.

<sup>183</sup> Ofwat, '[Service delivery report 2018-19](#)', October 2019, p.7.

<sup>184</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 209, paragraphs 66.

<sup>185</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 209, paragraphs 67.

service quality. And contrary to Bristol Water, we do not observe an inverse relationship between service quality and cost efficiency.

5.33 It should be emphasised that this is only one element of our analysis of the overall stretch across costs and outcomes that we set out in our final determinations. It has been dealt with here at some length since the argument has been made by Bristol Water, but there is a risk that it assumes undue prominence. In its statement of case, beyond the points made on modelling, Bristol Water does not seek to challenge the other elements of this part of our final determination. We therefore ask the CMA to reject Bristol Water's arguments on overall stretch on costs and outcomes and its additional requests for funding to improve service quality.

## 6. Aligning risk and return

### Summary

- 6.1 Our final determination set an allowed return of 2.96% in CPIH terms which we are satisfied provided a reasonable return for an efficient company based on the market evidence at the time.
- 6.2 Our final determination **did not include an adjustment to the allowed return on capital** as requested by Bristol Water on account of its size. We did not consider that customers would be adequately compensated for the cost of funding our view of the appropriate uplift to the allowed return on debt (33 basis points). Bristol Water did not request that we consider an adjustment to the allowed cost of equity as part of our three-stage assessment in its business plans or representation on our draft determination. This uplift also did not form part of acceptability testing with customers
- 6.3 We are satisfied that our final determination for Bristol Water provided an **appropriate balance of risk and return**, with significant scope to earn upside from outperformance with modest negative skew to its overall risk range, driven primarily by outcome delivery incentives. Though we note in paragraph 4.40 in chapter 4 above, Bristol Water's projection of potential downside for two ODIs in particular is unduly pessimistic.
- 6.4 **We consider that Bristol Water's determination is financeable on the notional structure.** We assessed the financial ratios for the notional structure to be consistent with a credit rating two notches above the minimum investment grade. Consistent with the PR19 methodology and our approach at previous price reviews, our financeability assessment was on the basis of the notional capital structure and before taking account of reconciliation adjustments for past performance.
- 6.5 Bristol Water's performance in 2015-20 has led to underperformance adjustments, with a £10.9 million RCV adjustment and £5.6 million revenue adjustment.<sup>186</sup> Bristol Water recognised that adjustments for past performance would impact on the financial ratios for it under its actual capital structure in its business plan.<sup>187</sup>

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<sup>186</sup> Ofwat, 'Bristol Water – Accounting for past delivery appendix', December 2019, p. 3

<sup>187</sup> Bristol Water, 'BW003. September 2018 Business Plan – Main Plan – Bristol Water for all', September 2018, Section 'C6 Financeability, risk and return & affordability', p. 182, 'Financing, ratios and financial resilience'.



- 6.6 Bristol Water is responsible for ensuring it delivers its obligations and commitments to customers. Investors rather than customers should bear the consequences of (i) Bristol Water's choice of capital and financing structure and (ii) its past performance adjustments. In our final determination we set out that we will closely monitor the steps Bristol Water takes to improve its financial resilience in 2020-25.
- 6.7 Table 6.1 highlights the key issues raised by Bristol Water in its submission in relation to risk and return and a summary of our response to each of those points.

**Table 6.1: Key issues on risk and return raised by Bristol Water in its submission**

Key issue in Bristol Water's submission	Summary of our response
<p><b>The allowed return on capital is too low for a small company.</b> Bristol Water considers we set the allowed return too low to support efficient financing for Bristol Water as a small water company. It says our failure to apply a company specific adjustment to the allowed return on debt and equity (based on previous decisions by the CMA in 2015 and the Competition Commission in 2010), alongside other errors, means it cannot earn a reasonable rate of return on its debt costs in 2020-25.</p> <p>Statement of case, p. 1, paragraph 7, bullet point 1</p>	<p>As a water only company, Bristol Water is smaller than the other disputing companies. But with an RCV of £530 million, it is not a small company in absolute terms, and was the largest of the companies requesting a company specific adjustment in PR19. It can access debt finance on terms broadly similar to the larger water and sewerage companies. Bristol Water customers would not receive adequate compensating benefits were we to allow Bristol Water to charge customers more as a result of a company specific adjustment to the allowed return.</p> <p>Our determination provided a reasonable allowed return for an efficient company with a notional capital structure, and market evidence since our determination supports that the allowed return was reasonable for an efficient company.</p> <p>Bristol Water's returns in 2020-25 will be impacted by reconciliation adjustments for its past performance and past choices made regarding its actual structure.</p> <p>We provide a more detailed response in paragraphs 6.35-6.53 below.</p>
<p><b>Cost of equity too low for a small company.</b> Bristol Water considers we did not consider the redetermination decisions from its previous references that a company specific adjustment to the cost of equity is required to reflect the higher operational gearing of a company like Bristol Water. It says its analysis of the final determination provides clear evidence of the need for an uplift.</p> <p>Statement of case, p. 1, paragraph 7, bullet point 2</p>	<p>As stated above, Bristol Water is not a small company in absolute terms. Bristol Water did not request we consider an adjustment to the allowed cost of equity as part of our three-stage assessment in its business plans or representation on our draft determination. This uplift also did not form part of acceptability testing with customers.</p> <p>Claims put forward by Bristol Water that it should have an uplift to the cost of equity on account of its level of operational gearing are unconvincing and poorly evidenced. The</p>

	<p>measure proposed by Bristol Water does not capture underlying risk characteristics and could indicate lower operational gearing rather than higher. Furthermore, its operational structure provides it with a higher return on equity as a consequence of the calculation of the retail margin.</p> <p>No other water only company (including those smaller than Bristol Water) requested a company specific adjustment to the cost of equity at PR19, and we see no evidence that water only companies require an uplift to the cost of equity - Bristol Water is the only company to have benefitted from an uplift to the cost of equity in the last decade, as a result of the redeterminations by the Competition Commission in 2010 and the CMA in 2015.</p> <p>It is not appropriate or necessary for customers to fund a higher cost of equity for Bristol Water, given the available evidence. If, however, the CMA were to agree with the operational gearing arguments advanced by Bristol Water, the appropriate response would be to lower the notional gearing level on which the determination is based.</p> <p>We provide a more detailed response in paragraphs 6.24-6.34 below.</p>
<p><b>Cost of capital errors.</b> Bristol Water considers the cost of capital parameters are not justified based on the evidence and our final determination is compromised by errors relating to setting the total market return, the risk free rate, asset beta, debt beta and the ratio of embedded to new debt. It considers we underestimated the cost of new debt, and requests an allowed return of 6.12%, which is higher than our determination (5.02%).</p> <p>Statement of case, p. 2, paragraph 7, bullet point 3; Statement of case, p. 4, paragraph 22, bullet point 1 and Statement of case, p. 5, paragraph 24, table of adjustments.</p>	<p>The CMA's provisional determination for NERL is consistent with our determination on the components of the allowed return that are relevant to this determination (total market return and risk free rate). We consider that our total market return, asset beta and debt beta are a balanced reading of the evidence at the time of our determination, though the beta estimate is high on current data. Our choice of risk-free rate estimate is guided by market data and we consider the company's alternative assumptions about convergence unfounded. Bristol Water's proposed new:embedded debt split is the result of its past financing choices and is a risk investors must bear. Customers are not able to influence a company's financing choices and should not bear increased costs associated with Bristol Water's past financing choices, in particular where these relate to the timing of debt issuance, that would provide higher returns than is required by market evidence.</p> <p>We provide a more detailed response in paragraphs 6.19-6.53 below.</p>
<p><b>Asymmetric cost sharing rate.</b> Bristol Water considers our determination contains an error by imposing an asymmetric totex cost sharing mechanism which means it must bear 60% of any cost over-runs but retain only around 40% of any underspend.</p>	<p>Asymmetric cost sharing rates were introduced to simplify the menu incentive applied at PR14, to (i) maintain strong incentives on companies to deliver stretching cost estimates in business plans in the context of asymmetric information and (ii) to provide ongoing incentives for cost efficiency. Asymmetric sharing is a long</p>

Statement of case, p. 8, paragraph 38	<p>standing tool used by Ofwat and in other regulated sectors. Bristol Water's arguments on cost sharing rates must be considered taking account of the wider aims of the incentive regime and with consideration of the impacts over the long term.</p> <p>We provide a more detailed response in paragraphs 6.65-6.70 below.</p>
<p><b>Gearing outperformance mechanism.</b> Bristol Water considers our determination contains an error by imposing a default gearing outperformance mechanism.</p> <p>Statement of case, p. 8, paragraph 39</p>	<p>The gearing outperformance mechanism was introduced as we concluded that company decisions that increase gearing levels materially above the notional level are not appropriately aligned to the interests of customers. Where companies adopt high levels of gearing, they may increase risk to equity investors and reduce financial resilience, they also may transfer some risk to customers and or potentially taxpayers, in the event that a company fails.</p> <p>We provide a more detailed response in paragraphs 6.71-6.72 below.</p>
<p><b>Financeability.</b> Bristol Water considers the effect of the decisions in our final determination mean that on both the basis of a notional and an actual financial structure, the company cannot reasonably be expected to maintain an investment grade credit rating, deliver reasonable returns or have the financial resilience to weather even minor shocks.</p> <p>Statement of case, p. 2, paragraph 8</p>	<p>Our determination provides Bristol Water with a reasonable return if it meets the cost allowances and performance commitments set out in our determination on the basis of the notional structure. Evidence since our determination supports our view that a company with the notional capital structure could maintain a credit rating that is two notches above the minimum of the investment grade.</p> <p>Under its actual structure, Bristol Water's headroom is eroded because of underperformance adjustments for past performance and as a result of its actual financing arrangements. Customers should not bear increased costs to provide increased headroom for costs that the company and its investors must bear.</p> <p>We provide a more detailed response in paragraphs 6.73-6.82 below.</p>
<p><b>Financeability error.</b> Bristol Water considers our assessment of financeability was inadequate. It says the final determination included a financeability error such that we failed to ensure the final determination 'was financeable for a relevant notional (small water only) financial structure for a company like Bristol Water'.</p> <p>Statement of case, p. 2, paragraph 9.</p>	<p>As stated above, Bristol Water is not a small company in absolute terms. If, however, the CMA were to consider there is insufficient headroom in its financeability assessment for the notional capital structure of Bristol Water, it could choose to adopt a lower level of notional gearing, increase the proportion of index linked debt or restrict dividends.</p> <p>Bristol Water's claims that relate to the financeability of the actual capital structure are matters for the company and its investors.</p> <p>We provide a more detailed response in paragraphs 6.73-6.82 below.</p>

## Considerations for the CMA

- 6.8 There are two broad categories of issues raised by Bristol Water. These relate firstly to our decision not to allow Bristol Water a company specific adjustment to the allowed return on account of its size, and secondly challenges to the sector-wide allowed return. The issues related to Bristol Water's claim for a company specific adjustment are addressed in this document. We summarise our view on the issues Bristol Water raised on the allowed return below, but refer the CMA to chapter 3 of our 'Risk and return - common issues' document for a detailed discussion of our view on the sector-wide allowed return.
- 6.9 In its statement of case, Bristol Water raises issues on the overall balance of risk and return and financeability which are sector-wide issues rather than company specific. We summarise our view on the issues raised in the following sections and provide a more detailed discussion in chapters 2 and 4 in our 'Risk and return - common issues' document.

### Company specific adjustment to the allowed return

- 6.10 In its statement of case, Bristol Water states that 'Ofwat does not recognise any cost of equity CSA in its FD. This approach is flawed as it fails to recognise that small WoCs, such as Bristol Water, with higher operational gearing are subject to higher asset beta risk...'<sup>188</sup> This is a surprising argument given that the company at no time applied for a **company specific adjustment to the cost of equity** in PR19. Although there was a clear mechanism for doing so and it conducted no customer engagement in relation to any proposal for it. Its suggestion that the draft determination constituted a change of circumstances is not credible. No other company sought a company specific adjustment to its cost of equity during the PR19 process either.
- 6.11 We suggest that the CMA should expect a very good explanation as to why **arguments that could have been raised during the PR19 process, but were not**. It is a questionable use of the CMA redetermination process, and could be viewed as an attempt to evade proper scrutiny of its proposals during the price review process.
- 6.12 Bristol Water recognises the regulatory approach to adopting a **notional capital structure**, it states 'Ofwat sets its allowed returns on a 'notional' basis. It assumes a capital structure which is typically different to the actual capital structures adopted by companies. The reason for this is that Ofwat considers it to be for companies to determine their own capital structures. We accept that

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<sup>188</sup> Bristol Water, 'Statement of Case', April 2020, p. 63, paragraph 239.

this is economically logical as there is a competitive market for private capital which companies in the UK can access.<sup>189</sup> However, it considers the approach should be **amended to reflect its size**.<sup>190</sup> The company proposes a 37 basis point uplift to the allowed return on debt to reflect its **past financing choices** which it claims were efficient.<sup>191</sup> Although framed as a request for a 'small company' adjustment, this is in substance a request to be allowed to pass through the cost of its long-dated embedded debt from the early 2000s to customers. It is **investors rather than customers that should bear the risks of management financing decisions** in particular in relation to the timing of debt issuance and the tenor (i.e. length) of debt instruments.

6.13 Bristol Water contends that its customers should fund a 95 basis point uplift to its allowed return on equity to compensate for its purportedly **higher operational gearing**. Bristol Water did not request an uplift to the cost of equity in its business plans. In its April 2019 revised business plan, it stated it had not included a company specific cost of equity adjustment in its plan because '[...] in the context of a relatively small and potentially declining value, and the overall relatively weak evidence and difficulties in calculating it, we conclude that as part of a package of assumptions in our business plan that it is not required for 2020-2025.'<sup>192</sup> Moreover, it did not consult with its customers on their willingness to fund an uplift to the cost of equity, neither did it request that we consider an uplift to its allowed cost of equity in its business plan through the process we set out for doing so in our PR19 Methodology.<sup>193</sup>

6.14 **We disagree with Bristol Water that an uplift to the allowed cost of equity is required.** Bristol Water has not challenged certain key assumptions underpinning the notional capital structure (either the gearing level or the assumed proportion of index-linked debt).<sup>194</sup> However, if the CMA were to decide that Bristol Water requires increased headroom in financial ratios to achieve a target credit rating compared with the notional capital structure, the appropriate response is to reduce the notional gearing level for the purposes of the financeability assessment, and not to increase the cost to customers.

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<sup>189</sup> Bristol Water, 'Statement of Case', April 2020, p. 16, paragraph 16.

<sup>190</sup> Bristol Water, 'Statement of Case', April 2020, p. 18, paragraph 23.

<sup>191</sup> Bristol Water, 'Statement of Case', April 2020, p. 19, paragraph 30, includes adjustments to the ratio of embedded to new debt that reflect Bristol Water's past financing choices.

<sup>192</sup> Bristol Water, 'Financeability, Risk & Return, and Affordability', April 2019, p. 104.

<sup>193</sup> Ofwat, 'Delivering Water 2020: Our final methodology for the 2019 price review', December 2017 p. 180.

<sup>194</sup> Bristol Water, 'Statement of Case', April 2020, p. 17, paragraph 20.

## Sector-wide allowed return

- 6.15 Bristol Water claims we have failed to allow it to earn a **reasonable rate of return** as result of setting the return on capital and cost allowances too low and a balance of risk and return which exposes the company to material downside financial risk.<sup>195</sup> We disagree. We assess the allowed return is reasonable based on our assessment of the market information at the time of our final determination. We consider our cost allowances reasonable and achievable for an efficient company and our determinations contain a balance of risk that is reasonable for an efficient company.
- 6.16 Bristol Water contends that the level of the **allowed return** is insufficient. The return it requests in its submission to the CMA, which includes the company specific adjustment to the allowed return (6.08% in nominal terms) is **materially above** the return it included in its revised business plan (5.70%).<sup>196</sup>
- 6.17 Bristol Water has not raised concerns with our calculation of the allowed **debt issuance costs** (its requested return includes the 10 basis points adjustment included in our final determination)<sup>197</sup> and does not dispute our calculation of the industry cost of **embedded debt**.<sup>198</sup>
- 6.18 Bristol Water has not raised concerns with the level of the **retail margin** or the **adjustment** to calculate the wholesale allowed return from the Appointee cost of capital (either in its representation on our draft determination or in its statement of case to the CMA). We amended our approach to the calculation of the adjustment in our final determinations in a manner that was revenue positive for companies.

## Our response to key issues raised by Bristol Water

### Key issue – Allowed return on capital

- 6.19 Issues raised by Bristol Water regarding our final determination of the **allowed return** focus on (i) its view that it requires an uplift to the sector allowed return on capital to reflect higher financing costs due to its small size and relatively

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<sup>195</sup> Bristol Water, 'Statement of Case', April 2020, p. 14, paragraph 1.

<sup>196</sup> Bristol Water, 'Bristol Water for All, Our plan to deliver excellent water experiences', April 2019, p. 202.

<sup>197</sup> Bristol Water, 'Statement of Case', April 2020, p. 19, paragraph 30.

<sup>198</sup> Bristol Water, 'Statement of Case', April 2020, p. 57, paragraph 215.



higher operational gearing; and (ii) errors it claims we have made in determining the sector allowed return on capital.

6.20 Bristol Water has noted in its statement of case the evolving situation regarding Covid-19 and has stated that it has not reflected evidence related to the Covid-19 pandemic.<sup>199</sup>

6.21 Bristol Water's view of the appropriate sector allowed return for the appointee (5.39% nominal)<sup>200</sup> before applying any company specific uplift is **slightly below** its initial September 2018 business plan view of (5.47%). However, after reflecting company specific adjustments, its proposed allowed return is 6.12% nominal, **materially above** its equivalent initial proposal (5.74%).<sup>201</sup>

### Company specific adjustments

6.22 Bristol Water sets out in its statement of case that we should have allowed a company specific adjustment to the allowed return to reflect its circumstances on account of its size. The company claims:

- it faces **higher financing costs** than larger companies and requires a company specific adjustment to ensure it can finance its plan.<sup>202</sup>
- an **uplift to the allowed cost of equity** is justified because of higher volatility of returns and operational gearing compared to larger companies.<sup>203</sup>
- the allowed cost of embedded debt should reflect its **Artesian debt costs** which it claims are efficiently incurred.<sup>204</sup>
- we were wrong to apply a '**customer benefits**' test in deciding whether to award a small company uplift as a matter of principle, as the approach was rejected by the CMA in its determination for Bristol Water in 2015. The company also alleges that we applied the test incorrectly and that correcting perceived errors would result in a pass and an uplift being allowed.<sup>205</sup>
- we **underestimated** the required level of the small company uplift to the sector allowed return on debt.<sup>206</sup>

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<sup>199</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 200, paragraph 38.

<sup>200</sup> Inferred from Bristol Water '[Statement of Case](#)', April 2020, p. 5.

<sup>201</sup> Bristol Water, '[Bristol Water for All, Our plan to deliver excellent water experiences](#)', April 2019, p. 176.

<sup>202</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 3, paragraph 13.

<sup>203</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 3, paragraph 17.

<sup>204</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 3, paragraph 14.

<sup>205</sup> Bristol Water, '[Statement of Case](#)', April 2020, pp. 3-4, paragraph 18.

<sup>206</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 4, paragraph 19.



6.23 We respond to the company's claims in the following sections.

### **Cost of equity: Company specific Adjustment**

6.24 **Bristol Water's proposed cost of equity uplift is poorly evidenced and unconvincing.** In its statement of case, Bristol Water proposed that its sector view of asset beta should be uplifted by 13 per cent, resulting in an allowed return on equity which is higher by 95 basis points. A cost of equity uplift was not formally requested by Bristol Water during the PR19 process and did not form part of its acceptability testing with customers. No other companies requested a cost of equity uplift during the PR19 process.

6.25 The company based the level of uplift on revenue metrics calculated by Economic Insight, which the consultancy took to be evidence that Bristol Water has higher operational gearing compared to the listed water and sewerage companies whose data informs the sector asset beta estimate.<sup>207</sup> The company considers its assessment to be conservative, as it is below the midpoint of the 5% - 26% range for the uplift proposed by Economic Insight using different revenue metrics.<sup>208</sup>

6.26 Bristol Water describes higher operational gearing as 'a higher proportion of fixed to variable costs',<sup>209</sup> and that this causes higher profit volatility. It is however unclear in the context of substantively fixed revenues over the five year control period why having a higher share of fixed costs should increase, rather than decrease the volatility of profits.

6.27 We also dispute the company's claim that its relatively low RCV results in lower profit margins. While the size of RCV informs the size of RCV run-off and allowed return, these revenue streams correspond to costs (depreciation and finance costs, respectively) which are also linked to the size of the RCV. It is therefore incorrect to treat them as pure profit margins. In addition, as illustrated in our initial submission to the CMA, Bristol Water's relatively low RCV results in a higher return on regulatory equity than water and sewerage companies because its retail margin is higher as a proportion of notional equity.<sup>210</sup>

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<sup>207</sup> Bristol Water, 'Statement of Case', April 2020, p. 65, paragraphs 248-250.

<sup>208</sup> Bristol Water, 'Statement of Case', April 2020, pp. 67-68, paragraph 256.

<sup>209</sup> Bristol Water, 'Statement of Case', April 2020, p. 63, paragraph 240.

<sup>210</sup> Ofwat, 'Reference of the PR19 final determinations – Cross-cutting issues', March 2020, p. 28, paragraph 4.15.

6.28 We add the following specific concerns with Economic Insight's operational gearing analysis for Bristol Water, which informs its proposed 13% asset beta uplift:

- The metrics used by Economic insight **do not adequately measure operational gearing**. We assume that the CMA will wish to apply its definition of operational gearing as used in the CMA's draft determination of the NERL RP3 control, i.e. 'relative exposure of profits to changes in cost'.<sup>211</sup> In this context, the preferred revenue ratios used by Economic Insight give little insight. It only considers the company's revenue mix, whereas profitability depends on both cost and revenue drivers. Economic Insight did not explain why a higher ratio implied that a company had greater exposure to systematic risks, or why one ratio should be preferred over another.
- Economic Insight's revenue ratios **could equally support the conclusion that Bristol Water has lower operational gearing**. Europe Economics' separate analysis of the impact of the Covid-19 crisis on labour and energy costs suggests that these cost items are likely to fall as a result of the current crisis compared with what they would otherwise be.<sup>212</sup> To the extent that totex cost shocks tend to have counter-cyclical impact on water company profits, the fact that totex represents a more substantial part of Bristol Water's cost base actually means that Bristol Water may have lower (not higher) exposure to systematic risk.
- Economic Insight's analysis **ignores that there are also systematic risks associated with financing costs**. As noted in the Europe Economics report,<sup>213</sup> a relatively high RCV and revenue share from allowed return carries its own risks (i.e. changes in the true market cost of equity and cost of debt driven by macroeconomic events). Hence, a company like Bristol Water that has relatively high operating costs and low financing costs (because its RCV is lower) does not necessarily have higher risk exposure overall. To assess the net impact on risk exposure, it is necessary to compare the change in systematic risk exposure from relatively high operating costs with the change in in systematic risk exposure from low financing costs. Without making this comparison, no conclusion can be drawn on whether there is an overall increase or decrease in the company's asset beta due to its cost structure.

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<sup>211</sup> CMA, '[NATS \(En Route\) Plc / CAA Regulatory Appeal, Provisional Findings Report](#)', March 2020, p. 140, paragraph 12.51.

<sup>212</sup> Europe Economics, 'Impact of COVID-19 Crisis on Real Price Effects (RPEs) and Frontier Shift', 1 April 2020, provided as C005.

<sup>213</sup> Europe Economics, 'Further Advice on the Allowed Return on Capital for the Water Sector at PR19 – Company-specific adjustments', May 2020, provided as R032.

- Finally, as recognised by the Competition Commission in 2010,<sup>214</sup> **an uplift applied to the entire asset beta will overstate the exposure to systematic risk**. Doing so assumes that cyclical profit fluctuations are the only source of systematic risk. This ignores other (non-cyclical) sources of systematic risk, such as political risk.

6.29 There is weak empirical evidence for a cost of equity premium for small water companies. If it were true that asset betas for water only companies were materially higher for size-related reasons, we would expect this to be reflected in empirical evidence, such as lower gearing and lower market-to-asset ratios in equity transactions. However, we do not observe systematically lower levels of gearing for water only companies<sup>215</sup> or systematically lower market-to-asset ratios in equity transactions.<sup>216</sup>

6.30 The Europe Economics report correctly points out that the use of volatility in returns on regulatory equity (RoRE) can only be used to justify higher returns if the volatility is due to systematic rather than idiosyncratic factors.<sup>217</sup> In practice we observe that the volatility of Bristol Water's totex RoRE is not in any case markedly different from the two listed comparators over the past four years, contrary to the company's assertion that it is more exposed to cost shocks.

6.31 Bristol Water implies that uncertain Canal & River Trust costs which are subject to arbitration support its claim for an operational gearing adjustment.<sup>218</sup> To the extent Bristol Water considers these costs uncertain, our final determination already provides the uncertainty mechanism requested by the company in its business plan that would apply should material changes to these costs arise. These costs should not therefore be taken into account here, to avoid double recovery.

6.32 Regardless of the view the CMA takes on the extent to which Bristol Water has notionally higher operational gearing as a small company, the company has overlooked an important alternative to increasing the notional asset beta – reducing the notional gearing. This would increase the notional company's resilience to systematic shocks and reduce the volatility of returns on regulatory

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<sup>214</sup> Competition Commission, '[Bristol Water Plc, a reference under section 12\(3\)\(a\) of the WIA 1991](#)', August 2010, Appendix N, p. N36, paragraph 129.

<sup>215</sup> The arithmetic average of March 2019 company reported gearing levels is 67.9% for water and sewerage companies and 70.1% for water only companies.

<sup>216</sup> Recent examples of premia to RCV include 53% for Affinity Water in 2017 and 50% for Dee Valley Water in 2016. The average premium for Severn Trent and United Utilities over 2016-17 was 22%.

<sup>217</sup> Europe Economics, 'Further Advice on the Allowed Return on Capital for the Water Sector at PR19 – Company-specific adjustments', May 2020, provided as R032.

<sup>218</sup> Bristol Water, '[Statement of Case](#)', April 2020, pp. 66-67, paragraph 255.

equity – which is a key concern for the company. This would be consistent with our approach at PR09, where we applied a different gearing assumption for water only companies than water and sewerage companies, taking account of the fact water only companies tended to exhibit lower gearing at the time and a lack of convincing evidence that water only companies exhibit a different exposure to systematic risk.<sup>219</sup>

- 6.33 We have not seen evidence of water only companies having difficulties raising finance in the absence of an uplift to the allowed cost of equity in our previous price reviews. Indeed Bristol Water references the depth of investor appetite in the market for financing utilities,<sup>220</sup> where it states:

‘The market for financing of utilities has been liquid and efficient, as well as being highly competitive and dynamic, including significant innovation. The capital market for RCV-based networks is generally considered to be deep, in terms of quantum of issuance and capacity to fund new investments, characterised by high demand and providing constant access to financing in different market conditions; it has also allowed for some of the longest tenors among all corporate debt financing. There has been no evidence of restricted investor appetite for UK water corporate debt and companies have continued to have unrestricted access to both debt and equity capital, as evidenced by continuous corporate debt issuance and equity transactions.’

- 6.34 As Bristol Water is the only company to have benefitted from a cost of equity uplift on account of its size in the last 10 years (as a result of the Competition Commission and CMA redeterminations), we consider that if the CMA were to continue to apply an uplift for Bristol Water in its redetermination, it will serve to perpetuate the incentive on the company to dispute its regulatory determinations at each price review, irrespective of the views it expresses in business plans. In essence, Bristol Water has effectively submitted a new claim to the CMA that it chose not to make to us during the PR19 process as referenced in paragraph 6.13 above. We suggest this is a questionable use of the reference process.

### **Cost of debt: Company specific adjustment**

- 6.35 **Bristol Water's circumstances are different to other small companies.** We applied a small company cost of debt premium in past price reviews because

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<sup>219</sup> Ofwat, ‘[Future water and sewerage charges 2010-15: Final determinations](#)’, November 2009, pp. 134-135.

<sup>220</sup> Bristol Water, ‘[Statement of Case](#)’, April 2020, p. 163, paragraph 685.

small water only companies had more limited access to debt finance, tending not to issue listed bonds directly. In RCV terms Bristol Water is the largest of the water only companies that requested a company specific adjustment to the allowed return at PR19,<sup>221</sup> and unlike some other smaller companies, has been able to independently access finance from listed bond markets, most recently in 2011. The CMA recognised in 2015 that this improved access to financing could imply that any change in the company specific adjustment would likely be downwards rather than upwards.<sup>222</sup>

**6.36 Bristol Water's actual cost of debt is broadly similar to large water and sewerage companies,** three of which (Southern Water, Dŵr Cymru and Yorkshire Water) reported higher borrowing costs than the 4.73% reported by Bristol Water as at March 2019.<sup>223</sup> Bristol Water argues that in drawing this comparison, its interest costs should be adjusted based on long term RPI of 3.0% rather than the RPI inflation of 2.4% for 2018-19 used to prepare its figure.<sup>224</sup> This does not disprove our point, as the company did not make similar adjustments to the interest costs for Southern Water, Dŵr Cymru or Yorkshire Water.

**6.37 Bristol Water's cost of embedded debt is higher than our allowance because it chose to issue long-dated debt in the early 2000s.** Bristol Water requests that the CMA should focus on the company's actual cost of debt (including its Artesian debt) which it considers could support a company specific adjustment of 62 basis points; it says we do not dispute its embedded debt was efficiently incurred.<sup>225</sup>

**6.38** We do not comment on the efficiency or otherwise of a company's debt issuance policy or the efficiency of specific instruments. Our long-held policy is to set an embedded cost of debt allowance with reference to benchmarks and using a notional capital structure in our determinations. We note that this is also the consistent policy of other regulators (e.g. Ofgem), and that the CMA endorsed it in its Bristol Water 2015 redetermination.<sup>226</sup> Finally, Bristol Water like other companies was aware of the regulatory framework in place when it issued its long-dated debt, and would have been aware that it did not amount to

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<sup>221</sup> Bristol Water's RCV as at 31 March 2019 was £530 million with total borrowings of £359 million; SES Water's RCV was £260 million. We did not allow an uplift to the allowed return for SES Water on account of its size and it has not disputed its determination.

<sup>222</sup> CMA, '[Bristol Water Plc, A reference under section 12\(3\)\(a\) of the Water Industry Act 1991](#)', October 2015, p. 307, paragraph 10.71.

<sup>223</sup> Bristol's reported nominal weighted average cost of debt was 4.73% compared to 5.56% for Southern Water, 5.04% for Dŵr Cymru, and 4.91% for Yorkshire Water.

<sup>224</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 58, paragraph 222.

<sup>225</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 61, paragraph 227.

<sup>226</sup> CMA, '[Bristol Water plc, A reference under section 12\(3\)\(a\) of the WIA 1991](#)', October 2015, Final determination, p. 303, paragraph 10.49.

a commitment to allow the company to pass through the cost of debt instruments until their maturity.

6.39 The Artesian finance vehicle used by Bristol Water to draw down funds over 2003-2005 was long-dated (30 year maturity), and the company's borrowings in this period concentrated a significant proportion of its outstanding debt within a short period, locking in the relatively high interest rates from this period. The company's gearing was 41% at 31 March 2003 and had risen to 67% at 31 March 2004. At 31 March 2003 net debt was £74.8 million, of which £45 million consisted of Artesian financing during the year, 60% of total net borrowings.<sup>227</sup> At March 2006 net debt was £166.2 million<sup>228</sup> of which £148.5 million consisted of Artesian financing<sup>229</sup> which was 89% of total net borrowings. The Artesian financing provided for repayment of £20 million of existing bank debt and to finance ongoing capital expenditure. The company also included a 'special dividend' at 31 March 2003 of £10 million to reflect the view of the Board that in conjunction with the new financing arrangements, an increase in gearing was appropriate.<sup>230</sup> The company also issued two 'upstream loans', in 2003 and 2005 to its immediate parent. These loans remain in place today and parent company interest payments are funded by dividends from the regulated business.<sup>231</sup>

6.40 Subsequently lower interest rates have reduced the gap between our allowed cost of embedded debt and the effective interest cost of Artesian debt, as we have used debt cost data to recalculate the benchmarks used to inform our allowance (Figure 6.1). We note from evidence of outperformance in earlier price control periods that it is not clear that the company is set to under-recover debt interest costs on average over the debt's 30 year term.

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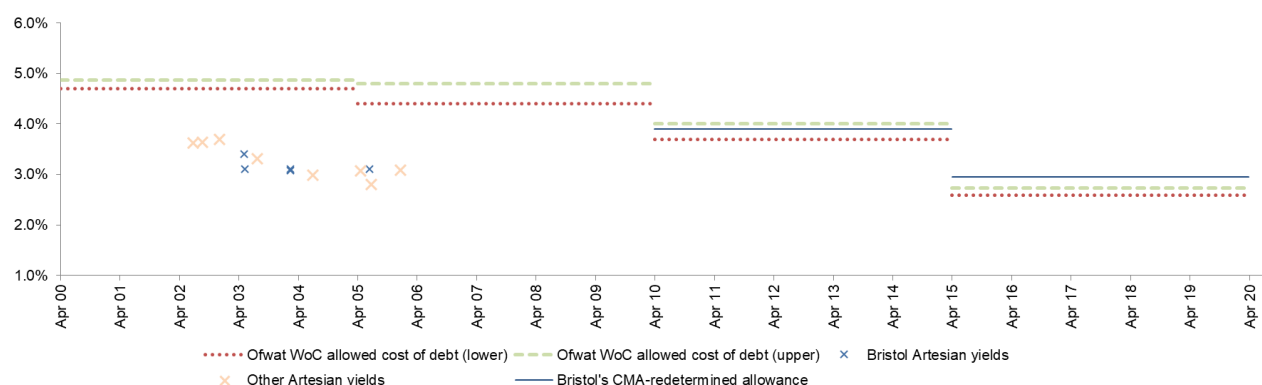
<sup>227</sup> Bristol Water, 'June Return 2003', p. 6, p. 12, paragraphs 8 and 38, provided as R008.

<sup>228</sup> Bristol Water, 'June Return 2006', p. 6, paragraph 16, provided as R009.

<sup>229</sup> Bristol Water, ['Financeability, Risk & Return, and Affordability'](#), September 2018, p. 57.

<sup>230</sup> Bristol Water, 'June Return 2003', p. 6, paragraph 8 and p.12, paragraph 38, provided as R008.

<sup>231</sup> Bristol Water, [Annual Report and Financial Statements for the year ended 31 March 2019](#) p. 65.

**Figure 6.1: Allowed cost of debt PR99-PR14 and Artesian effective yield at issuance**

Source: PwC and Ofwat analysis of water company data and price review publications

6.41 Bristol Water submitted evidence to us that its actual cost of debt was 4.94% in nominal terms.<sup>232</sup> We illustrate that Bristol Water's higher cost of debt is the consequence of the tenor of its Artesian debt as follows: if the term on Bristol Water's Artesian bonds had been around 15 years instead of 30, and that the company's Artesian borrowing was illustratively refinanced at the average iBoxx A/BBB rate of 3.05% over 2017-2019 (plus a 10 basis point uplift to reflect our final determination assessment of historic underperformance by small water only companies), the company's resultant nominal cost of embedded debt would have been 3.16% versus our final determination allowance of 4.47%.

6.42 This example serves to illustrate that our embedded cost allowance is achievable in principle for a small company and that choices over tenor of issuance rather than size disadvantage are the relevant issue. As tenor is a management choice, and the risks of the company's long-dated issuance were clear, we consider that shareholders, not customers, should bear the consequences of this choice. In the context of the company's decision to issue long-dated debt and its subsequent references to the CMA, we are concerned at the prospect of an arrangement whereby companies such as Bristol Water reap all of the upside risk of their debt issuance strategy (see Figure 6.1), while seeking to assign downside risks to its customers.

### Our benefits assessment protects customers

6.43 It is commonplace for companies to raise issues with allowances set on a notional basis where they disadvantage them based on their actual circumstances. Typically the arguments relate to purportedly special characteristics of the company which invalidate our approach. A high bar should be applied to these claims to protect customers; our benefits

<sup>232</sup> Bristol Water, 'BW04 – Financial issues', August 2019, p. 63, Table 1.



assessment is an expression of this. We consider that our approach in this regard goes no further than the pressures which would apply in a competitive sector. As we explained in our cross-cutting issues document submitted to the CMA in March 2020:

'In a competitive market (for which any price control must operate as a proxy) small companies cannot expect to pass higher size-related financing costs onto their customers unless either they provide a service whose higher quality compensates for its increased cost or they find offsetting efficiencies elsewhere. In this context, customers are entitled to expect that any increased cost allowance due to a particular company's corporate structure is adequately compensated for by efficiency and/or quality of service benefits provided by that company.'<sup>233</sup>

6.44 We acknowledge the CMA did not apply a benefits test in its redetermination of Bristol Water's price control in 2015. We take the opportunity to summarise how we have responded to the CMA's issues from its final determination document in the following table.<sup>234</sup>

**Table 6.2: Summary of benefits test issues raised by the CMA in its 2015 redetermination of Bristol Water's price control**

CMA Issue	Our response
Unconvincing causal link between allowed cost of debt and benefits outlined by Ofwat. CMA 2015 redetermination, p. 309, paragraph 10.72a.	We set out our rationale explaining the link from awarding the cost of debt uplift to decreasing merger probability in our initial assessment of plans. <sup>235</sup> Mergers will tend to affect future customer benefits through their impact on the strength of our benchmarks used to challenge the sector to improve efficiency and service levels.
Ofwat's approach is inconsistent with other areas where small companies may have higher costs. CMA 2015 redetermination, p. 309, paragraph 10.72b.	We consider that our approach is consistent with other parts of our methodology; for instance special cost claims, where we required companies to provide cost-benefit analysis to demonstrate that special cost claims were the best option for customers before considering their inclusion in totex allowances. <sup>236</sup>

<sup>233</sup> Ofwat, 'Reference of the PR19 final determinations: cross-cutting issues', March 2020, p.51, paragraph 5.68.

<sup>234</sup> CMA, 'Bristol Water Plc, A reference under section 12(3)(a) of the Water Industry Act 1991', October 2015.

<sup>235</sup> Ofwat, 'Technical Appendix 4: Company-specific adjustments to the cost of capital', December 2019, p. 47.

<sup>236</sup> Ofwat, 'Final methodology Appendix 11: Securing cost efficiency', December 2019, p. 14.

<p>There is a reasonable expectation that investors should on average over time recover the cost of efficiently incurred debt.</p> <p>CMA 2015 redetermination, p. 309, paragraph 10.72c.</p>	<p>We agree with this statement, albeit challenging that our framework set up a reasonable expectation that debt issued in the 2000s would be treated as a pass through cost, and challenging the company's portrayal of its Artesian debt as 'efficiently-incurred'. We are concerned to prevent the emergence of a business-as-usual scenario whereby companies only hold the upside risk of timing and tenor, and are able to successfully appeal away any downside risks. We consider that the CMA's statements in the 2015 Bristol Water redetermination suggest that it shares this view.<sup>237</sup></p>
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## **We affirm our view that Bristol Water does not pass our benefits assessment**

- 6.45 In its statement of case, Bristol Water points to various alleged errors and omissions in our approach to modelling the benchmarking benefits which would be provided by the company if it received a 33 basis point uplift to the allowed cost of debt.<sup>238</sup> The company argues that if these issues were addressed, it would pass our benefits assessment.
- 6.46 Any revised benefits assessment would have to feature the cost impact of its updated small company premia on the cost of debt and equity, which jointly add 73 basis points to the sector allowed return on capital, rather than our final determination calculation of 20 basis points, or Bristol Water's previous proposal of 22 basis points. Given we calculated a negative net present value (NPV) for Bristol Water in our assessment of costs and benefits in our final determination, it is especially doubtful that a near quadrupling of cost would result in a different outcome.
- 6.47 We summarise in the Table 6.3 our responses to the key issues Bristol Water raises in its statement of case. Overall, we consider that the issues are either incorrect, or a matter of perspective, or not material to the overall outcome of our assessment.

<sup>237</sup> CMA, 'Bristol Water Plc, A reference under section 12(3)(a) of the Water Industry Act 1991', October 2015, p. 295, paragraphs 103-104.

<sup>238</sup> Bristol Water, 'Statement of Case', April 2020, pp. 48-54, paragraphs 172-203.

**Table 6.3: Key issues raised by Bristol Water on the benefits assessment test**

Bristol water issue	Our response
<p>Ofwat omitted relevant customer benefits from its benefits assessment (customer willingness to pay, C-MeX, innovation)</p> <p>Statement of case, p. 48, paragraphs 175-184.</p>	<p>Stated willingness to pay is unreliable as a guide to economic benefits when valuing something as complex as avoiding a merger, moreover Bristol Water tested a bill impact of £1.80 per household per year. We estimate the revised bill impact as £6.00.</p> <p>C-MeX is a PR19 measure, and official (rather than 'shadow') data was not available to consider it. For C-MeX's predecessor, SIM, Bristol Water's ranked 11th out of 18 companies in 2018/19, making it doubtful that it provides significant customer service benchmarking benefits.</p> <p>While noting some new examples of innovation cited by BRL we are still of the view that these are unlikely to make up the gap to positive NPV.</p>
<p>Ofwat did not consider the effect a merger would have on model precision</p> <p>Statement of case, p. 51, paragraphs 185-190.</p>	<p>The impacts of losing a comparator on modelling precision may result in higher or lower bills, therefore we did not include the company's estimate of the impact of losing a company on precision in our cost-benefit analysis.</p>
<p>Ofwat's approach does not align with its final determination benchmarking methodology</p> <p>Statement of case, p. 52, paragraphs 191-193.</p>	<p>Using the upper quartile is well established in our methodology from past price controls, and we do not consider the slight change at final determination (fourth company rather than upper quartile) to set our benchmark invalidates the use of this assumption for our forward-looking modelling.</p>
<p>Ofwat understates the benefits of service comparisons due to an unbalanced use of incentive rates</p> <p>Statement of case, p. 52, paragraphs 194-196.</p>	<p>We are not convinced that averaging penalty and reward rates instead of using reward rates would change the outcome of our assessment.</p>
<p>Ofwat's estimate of future comparative non-totex benefits is arbitrary and understates the benefit</p> <p>Statement of case, p. 53, paragraphs 197-201.</p>	<p>We consider that the company's alternative proposal that we model future benefits based on benchmarking benefits in the final year of the PR19 control instead of benefits across the entire control is contrived and unrealistic.</p>
<p>Ofwat has wrongly assessed our efficiency</p> <p>Statement of case, p. 53, paragraphs 202-203.</p>	<p>We consider that our totex models accurately measure Bristol Water's historic totex and efficiency rank, providing valid inputs to our modelling.</p>

**Bristol Water's estimate of the appropriate cost of debt uplift due to its small size is too high.**

6.48 Bristol Water's estimate of the appropriate level of company specific uplift on the overall cost of debt for successful applicants is 37 basis points, compared to our final determination decision of 33 basis points. The drivers of difference are:

- **Embedded debt uplift:** The company argues for 38 basis points rather than our final determination estimate of 35 basis points. This drives 2.4 basis points of difference.
- **New debt share:** The company argues that we should use a new debt share of 5% rather than 20% to recognise that smaller companies currently have lower issuance needs. This drives 2.0 basis points of difference.

6.49 On the level of debt uplift, Bristol Water used analysis by its advisor KPMG to inform its estimate. Contrary to the company's suggestion, we did not accept KPMG's approach, which the company initially used to argue for an embedded cost of debt uplift of 55 basis points.<sup>239</sup> A more accurate account is that we identified multiple errors and concerns in KPMG's analysis throughout the PR19 process, several of which persisted in the latest analysis we reviewed.<sup>240</sup> These are issues which could have been avoided by simply relying on the CMA's more robust analysis of the small company premium in Bristol Water's 2015 redetermination.

6.50 Analysis conducted after our final determination from a notional perspective suggests that the appropriate uplift could be even lower. As set out in Europe Economics (2020),<sup>241</sup> the majority of the 35 basis point uplift we allowed for two small water companies at final determinations is due to the longer average tenor of debt issued by small companies compared to the iBoxx. Once tenor is controlled for, the residual higher yield at issuance attributable to small size and other factors is approximately 5 basis points. As tenor is a company choice rather than an unavoidable function of small size, we consider that this lower uplift better approximates the premium faced by small companies and that any uplift should be based on this analysis. We would gladly explain and share the underlying analysis to assist the CMA in coming to its own view.

6.51 We recognise that a 'lumpy' investment (or debt issuance) profile can cause a company's share of new debt to deviate from our sector assumption, which may drive under- or outperformance. Over time, we would expect these deviations to balance out, with underperforming positions becoming

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<sup>239</sup> Bristol Water, 'Financeability, Risk & Return and Affordability', September 2018, p. 10.

<sup>240</sup> Ofwat, 'PR19 Final determinations: Allowed return on capital technical appendix', December 2019, pp. 99-100, Table A1.3.

<sup>241</sup> Europe Economics, 'Further Advice on the Allowed Return on Capital for the Water Sector at PR19 – Company-specific adjustments', May 2020, provided as R032.

outperforming positions and vice versa. This is because, for example, an atypically high share of embedded debt attributable to issuance concentrated over a few years will become an atypically high share of new debt when this debt is refinanced. Over the long term, we therefore consider that making more company specific assumptions on share of new debt is not required to ensure equal treatment of companies. A redetermination that assumes a new debt share based on actual company circumstances would distort company incentives as financing decisions would have a material impact on the allowed return. It would also skew benefits towards companies (who would be encouraged to refer their determinations to the CMA only when their actual ratio disadvantaged them relative to the notional assumption). This would clearly not benefit customers in the long term.

6.52 We submit that setting the cost of debt on the basis of Bristol Water's actual debt costs would not be in the long term interest of customers. If, however, the CMA were to take account of Bristol Water's actual financing costs, it should note evidence from Bristol Water's £40 million listed bond due 2041, that suggests it does not require an uplift to its allowed cost of new debt. Over the past year, the inflation-adjusted<sup>242</sup> yield on this bond has been 2.37% in nominal terms - 25 basis points lower than the 2.62% average value of the iBoxx A/BBB. This is below our final determination sector cost of new debt allowance of the iBoxx A/BBB minus 15 basis points, suggesting it would be possible for the company to issue new debt with a coupon that implies outperformance against our allowance. The company argues that it cannot outperform the iBoxx A/BBB due to being unable to issue debt with short-duration tenor.<sup>243</sup> We find this statement puzzling given the company took out a 10 year term loan in May 2018, and note that the yield on its listed bond over the past year has been lower than the iBoxx yield despite average years-to-maturity being similar.<sup>244</sup>

### **Conclusion on Bristol Water's claim for a company specific adjustment to the allowed return**

6.53 In the paragraphs above we have set out:

- Bristol Water's request for a company specific **uplift to the cost of equity is a new claim**. It did not request that we assess it as part of the three-stage test adopted at PR19 and it did not engage its customers to obtain

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<sup>242</sup> We adjust the RPI-based yield for our long-term estimate of RPI of 2.9%, which reflects the Office for Budgetary responsibility's latest estimate of the RPI-CPI 'wedge' of 0.9%.

<sup>243</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 61, paragraph 226.

<sup>244</sup> 22 years for the company instrument, compared to 21 years for the iBoxx A/BBB.

support for a cost of equity uplift. We are concerned that the company acted with the aim of **evading the proper scrutiny** of the price review process.

- A small size cost of equity premium is **poorly supported by theory and empirical evidence**; no other company at PR19 proposed such an uplift.
- Bristol Water is **the only water only company** to have benefitted from an uplift to the cost of equity in the last 10 years, as a consequence of decisions by the Competition Commission in 2010 and the CMA in 2015.
- **Limited evidence exists of higher perceived risk by investors.** There is no evidence to suggest other water only companies have had difficulty raising finance. Equity in water only companies has continued to trade at material premia to RCV in the absence of such an uplift, and there is no significant difference in gearing between water and sewerage companies and water only companies.
- **Bristol Water's circumstances have changed** – as the largest small water only company it has less in common with the smaller water only companies as, for example, it can issue its own listed bonds.
- In substance, the claim is a claim for a **company specific adjustment to the cost of debt** is a pass-through of costs of embedded debt, which comprised a substantial proportion of Bristol Water's debt at the time of issuance.
- Bristol Water's cost of debt is **lower than three water and sewerage companies**.
- Bristol Water's issue with our cost of embedded debt allowance is the **result of its past financing choices**; driven primarily by its choice to issue long-dated debt in the early 2000s. These choices were under the control of management, and customers should not be expected to bear these risks. The issuance was accompanied at the time by a 'special dividend' payment to shareholders.
- This is the **third consecutive reference** made by Bristol Water. We are concerned that including a company specific adjustment would further perpetuate the incentive on Bristol Water to refer its future determinations to the CMA, irrespective of the proposals it puts forward in its business plan.
- Our benefits assessment **protects customers** – we have considered and responded to the CMA's criticisms made in its 2015 decision for Bristol Water, but consider that it remains appropriate as an expression of our duties.
- It is highly unlikely that the company would pass our benefits assessment, as its updated small company uplift implies **costs nearly four times higher** than in our final determinations assessment.
- Finally, the appropriate **small company uplift on the cost of debt could be much lower**. On embedded debt we estimate 5 basis points, based on analysis in an accompanying Europe Economics report. For new debt,

evidence from the company's listed bond suggests the company faces a cost of new debt below our sector allowance.

- **Customers should not be required to hold the company harmless** for costs associated with the company's management choices about the timing and tenor of debt.

## Calculation of the allowed return

6.54 Bristol Water claims there are errors in the way we have calculated the allowed return. The company claims:

- We understated the **total market return** as a result of methodological errors and an unbalanced consideration of the evidence.<sup>245</sup>
- We selectively focused on index-linked gilt data in our estimate of the **risk free rate**, resulting in an understated estimate.<sup>246</sup>
- We underestimated the **asset beta** as a result of reliance on high frequency betas at a short horizon (2 years daily beta) rather than using lower frequency betas over longer periods (ie 5 years monthly data).<sup>247</sup>
- We used a too-high **debt beta** of 0.125, which was higher than PR14 and the CMA's decision for Bristol Water in 2015. Bristol Water considers the evidence underpinning the debt beta to be speculative.<sup>248</sup>
- We underestimated the **cost of new debt** as a result of errors in the calculation of the risk free rate.<sup>249</sup>
- We unjustifiably skewed the **ratio of new to embedded debt** in the allowed return by setting it at 20:80. The company claims we should apply a new:embedded debt split of 5:95 consistent with the appropriate ratio for a small notional company.<sup>250</sup>

6.55 We respond to all of the above issues in chapter 3 of our 'Risk and return – common issues' document. We summarise our position below.

6.56 We disagree with Bristol Water's claims that our assessment of the **total market return** is understated. An increase in the propensity of RPI to overstate inflation over time means that a total market return estimate derived through averaging long-run RPI-deflated equity returns will overcompensate investors. This makes a CPIH-deflated historical series preferable. We do not accept that our choice of estimators for total market return using a historical approach is

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<sup>245</sup> Bristol Water, 'Statement of Case', April 2020, p. 4, paragraph 21, bullet point 1.

<sup>246</sup> Bristol Water, 'Statement of Case', April 2020, p. 4, paragraph 21, bullet point 2.

<sup>247</sup> Bristol Water, 'Statement of Case', April 2020, p. 4, paragraph 21, bullet point 3.

<sup>248</sup> Bristol Water, 'Statement of Case', April 2020, p. 4, paragraph 21, bullet point 4.

<sup>249</sup> Bristol Water, 'Statement of Case', April 2020, p. 4, paragraph 22, bullet point 1.

<sup>250</sup> Bristol Water, 'Statement of Case', April 2020, p. 4, paragraph 22, bullet point 2.



unduly narrow – our preferred estimator is designed to minimise error in our estimate relative to the true parameter. We continue to consider the case for any 'bias adjustment' to the output of dividend growth models to be poorly-founded and not in keeping with latter-day evidence.

- 6.57 We disagree with Bristol Water's claims that our assessment of the **risk-free rate** is understated. We previously provided evidence that RPI-linked gilts have limited default, inflation and default risk. The main alternative – nominal gilts – embed inflation risk. This is not consistent with a true risk-free rate and would result in inappropriately compensating investors for inflation risk in a sector where revenues are already inflation protected. Market data suggests a persistent and strongly negative risk-free rate with weak evidence on mean-reversion or other types of convergence that might justify a longer trailing average or glide path.
- 6.58 Bristol Water's support for **asset beta** based on 5 year monthly betas does not adequately reflect the risk that some of this data may be obsolete and no longer relevant to informing investor expectations – we support placing weight on both 2 year and 5 year betas. Monthly data also reduces the precision of estimate due to a lower sample size and we are unconvinced that the use of daily data is problematic, given the analysis by Europe Economics which disproves any downward bias in daily data due to lags in incorporating data into share prices.
- 6.59 The **unlevered beta** we set in our final determination (0.29) was higher than recommended by our advisers (0.26). It was similar to PR14 (0.30) and within the range used by the CMA in 2015 for the sector (0.27 to 0.30). We consider our beta estimate to be reasonable as part of our in the round assessment of the cost of equity at the time we made our determination. As referenced in the accompanying report we submit, from Europe Economics, an unlevered beta of 0.29 remains justified following the approach the CMA has adopted in its provisional findings for the determination of NATS En-route Limited. Indeed Europe Economics retains the view it could be 0.26.<sup>251</sup>
- 6.60 As regards **debt beta**, we consider that our point estimate of 0.125 remains conservative, both 'decompositional' and 'direct' evidence provide support for a higher figure. While recognising that previous decisions in UK regulation are clustered around 0.1, there is limited support for this level of debt beta in our analysis.

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<sup>251</sup> Europe Economics, 'Further Advice on the Allowed Return on Capital for the Water Sector at PR19 – Betas and Gearing', May 2020, pp. 3-4, provided as R034.

6.61 We do not accept the company's proposal to estimate a 'bottom-up' **cost of new debt** based on its estimate of the risk free rate and implied debt premium in our final determinations allowance. As both risk-free rate and debt premium may change over time we consider a more accurate estimate can be derived through taking a direct reading of more recent iBoxx A/BBB data.

6.62 Bristol Water claims the **split of new to embedded debt** should reflect its circumstances as a small notional company. We do not agree it is necessary to set a more bespoke assumption – we consider that over a long enough period out- and underperformance due to the notional assumption should broadly cancel out, and that undesirable impacts on incentives from adopting a company data-led approach would not be in customers' long-term interests.

### Key issue – Balance of risk

6.63 In its statement of case, Bristol Water claims there is asymmetric downside risk in the final determination which is unjustified and we had not sufficiently considered the implications of our interventions. Bristol Water claims:

- Failure to allow a **company specific adjustment** to the allowed return and to disallow claimed **cost allowances** materially constrains its financing.<sup>252</sup> The **penalty rate for ODIs** was set too high for mains bursts and per capita consumption, resulting in negative asymmetry in the overall ODI RoRE range.<sup>253</sup>
- we are unjustified in setting **asymmetric cost sharing rates** for overspend and underspend against our totex allowances, setting a 60% rate for the company share of overspend and a 40% rate for underspend.<sup>254</sup>
- The default **gearing outperformance sharing mechanism** is unjustified and adversely affects its financial resilience.<sup>255</sup>

6.64 We disagree with Bristol Water's claim that we should allow it a company specific adjustment to the allowed return. As discussed above, customers would not receive compensating benefits were we to allow Bristol Water to charge customers more as a result of a company specific adjustment to the allowed return. We comment on Bristol Water's cost allowance and ODI claims in chapters 3 and 4 above.

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<sup>252</sup> Bristol Water, 'Statement of Case', April 2020, p. 8, paragraph 36.

<sup>253</sup> Bristol Water, 'Statement of Case', April 2020, p. 8, paragraph 37.

<sup>254</sup> Bristol Water, 'Statement of Case', April 2020, p. 8, paragraph 38.

<sup>255</sup> Bristol Water, 'Statement of Case', April 2020, p. 8, paragraph 39.

- 6.65 Bristol Water argues the **asymmetric cost sharing rates** does not fulfil the proper function of providing protection against the risk of cost overruns and incentives for furthering efficiency. The company claims this places further reliance on the accuracy of our benchmarking models.
- 6.66 In its assessment Bristol Water focusses on the effect of the incentives on it, as a company whose applicable totex for cost sharing is 110% of our assessment of efficient cost.<sup>256</sup> It is not appropriate to consider the rationale for asymmetric cost sharing rates without broader consideration of the rationale for adopting the cost sharing mechanism.
- 6.67 We disagree that asymmetric cost sharing rates fail to provide adequate protections or remove incentives for efficiency. Companies had full sight of the intention to remove cost sharing menus applied at PR14 and introduce asymmetric cost sharing rates. Our aim in doing so was to simplify the regulatory approach compared with PR14, and to provide increased incentives on companies to deliver stretching cost forecasts in business plans in addition to providing ongoing incentives to deliver cost efficiency and protection in the event of overspend. It is not appropriate to consider the rationale for asymmetric cost sharing rates without broader consideration of the rationale for adopting the cost sharing mechanism.
- 6.68 Bristol Water had significant opportunity through the PR19 process to convince us of the need for the costs requested in its business plan, which it failed to do. Our approach recognises there is an asymmetry of information between companies and us (and in the case of the redetermination, the CMA), and in the absence of appropriate incentives, companies are likely to bid up requested cost allowances. Our approach ensures companies that have the most efficient business plans and subsequently deliver the most efficiencies retain the greatest share of outperformance; companies with the least stretching plans and that deliver the least efficiencies bear a greater proportion of the cost of underperformance.
- 6.69 However, it is important to recognise any decisions the CMA make that affect the totex cost sharing rates in our final determination could impact on the incentives for submission of efficient business plans in the future. We submit that the CMA should retain the cost sharing rates in our final determination for the disputing companies. We would welcome further engagement with the CMA on this issue.

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<sup>256</sup> Bristol Water, '[Statement of Case](#)', April 2020, p. 157, paragraph 652.

6.70 Evidence presented in chapter 2 of our 'Risk and return – common issues' document shows that in 2015-19, Bristol Water has outperformed the totex allowance provided by the CMA in 2015 by 4.2%. Bristol Water, if efficient, can continue to deliver its commitments and obligations to customers within the cost allowances we set, with incentives to outperform. We discuss these issues further in our 'Risk and return – common issues' document.

6.71 Bristol Water considers the **gearing outperformance mechanism** exposes the company to increased downside risk. It argues the mechanism is inconsistent with the cost of capital, is an unprecedented intervention into capital structures and is set at too low a level for Bristol Water. The company argues that if the mechanism is applied, preference shares should be treated as equity.

6.72 We set out the reasons why we proposed to adopt the gearing outperformance mechanism and the reasons why we consider the application of it is consistent with accepted economic and corporate finance theory in chapter 5 of our 'Risk and return – common issues' document. Should the CMA consider it necessary to comment on the treatment of preference shares for the gearing calculation, it should note the arguments presented by Bristol Water to the CMA in 2015 where the company argued that preference shares should be treated as debt.<sup>257</sup>

## Key issue - Financeability

6.73 In its statement of case, Bristol Water claims we failed to meet our financing functions duty and that its business plan was not financeable under the final determination. This is in part due to its view that the allowed costs and allowed return are inadequate.<sup>258</sup> The company claims:<sup>259</sup>

- The **notional capital structure** we applied bears little resemblance to that of a small water only company and is contrary to the previous decisions made by the Competition Commission in 2010 and CMA in 2015. Bristol Water argues our assumptions should reflect an adjustment to the cost of capital to reflect its circumstances and include a lower share of new debt.
- The **headroom analysis** in our determination assessed there to be £20 million totex headroom over the period of the control on the basis of the notional capital structure. The company argues this is less than the £25 million in the normalised totex downside scenario applied in our final

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<sup>257</sup> CMA, 'Bristol Water Plc, A reference under section 12(3)(a) of the Water Industry Act 1991', October 2015, p. 312, paragraph 10.87.

<sup>258</sup> Bristol Water, 'Statement of Case', April 2020, p.24, paragraph 59.

<sup>259</sup> Bristol Water, 'Statement of Case', April 2020, p.9, paragraphs 44-45.

determination. The company sets out that the sensitivity analysis ignored other sources of downside risk, for example cost of debt.

- The strategies used for **mitigating financeability constraints** are not applicable or available to it. The company argues that restructuring options to redress the balance between debt and equity are not available to the company under its actual structure, and repaying its short term debt offers little benefit to its financial ratios.
- We failed to check that the **credit rating** set for determining the cost of capital was achievable, as core financial ratios used by Moody's and Standard and Poor's are not achieved.
- We failed to provide sufficient **headroom** over debt service requirements to enable the company to withstand foreseeable adverse events because of an inadequate cost of capital, inadequate cost allowances and asymmetric downside risk.

We failed to secure that a notional company can earn the **required equity return** on a mean expected basis.

6.74 The key issues raised by Bristol Water in relation to financeability are broadly common with some of the issues raised by the other disputing companies. Our final determination provides Bristol Water with a reasonable return if it meets the cost allowances and performance commitments set out in our final determination on the basis of the notional capital structure. We discuss these issues further in chapter 4 of our 'Risk and return – common issues' document. As we mentioned in chapter 2 above, the issues raised by Bristol Water are not in truth 'hard-edged' questions about whether we have failed to meet our statutory duties, but rather disagreements as to the merits of decisions we made in the final determination.

6.75 We disagree with Bristol Water's view that we should adjust the **notional capital structure** to reflect the company's past financing choices.

6.76 As for all water companies, we set our determinations on the basis of a notional capital structure. This is consistent with all of our regulatory duties, as well as with the approach that we and other regulators have adopted in previous determinations. One reason for adopting a notional capital structure is that it is **not appropriate for customers to bear the costs or risks associated with a company's choice of actual capital structure**.

6.77 It is not appropriate that customers should incur increased costs as a result of a new:embedded debt split that reflects Bristol Water's past financing choices. We explain the risks to customers, the risks to future determinations and to the CMA if the CMA determines it is appropriate to take account of some features

of actual financial structures into account in chapter 2 of our 'Risk and return – common issues' document. We comment on Bristol Water's claim for a company specific adjustment to the cost of debt above.

6.78 We note that Bristol Water has been selective in its statement of case highlighting the need, in its view, for a higher cost of capital to mitigate a financeability constraint for its circumstances. But it appears not to have highlighted the benefit to adjusted interest cover arising from its proportion of index linked debt which is materially higher than the conservative assumption (33%) used for the notional capital structure in our final determination. As highlighted in our introduction to the CMA,<sup>260</sup> the CMA could reasonably assume a higher proportion of index linked debt (sector average is 55%) in the notional capital structure than we assumed in our final determination.

6.79 We note Bristol Water's arguments regarding the **headroom analysis** we carried out in our final determinations. Our approach was to assess cashflow headroom against an adjusted interest cover of 1.0x, the minimum headroom required for the company, under the notional structure, to meet its interest costs. Bristol Water argues a threshold of 1.1x should be considered as the minimum for the assessment based on analysis by KPMG of the assumed level necessary to be maintained for an investment grade credit rating by Moody's.<sup>261</sup>

6.80 There are a number of reasons the CMA should be cautious in placing any weight on Bristol Water's arguments about **headroom**:

- **There is no guidance from any credit rating agency on the minimum required financial ratios to maintain an investment grade credit rating** (Bristol Water is clear in its statement of case that this is not contested).<sup>262</sup> Bristol Water places significant weight on adjusted interest cover (given its credit rating is with Moody's), but this is only one financial ratio considered by Moody's in its analysis. Moody's ascribed equal weight to adjusted interest cover and funds from operations : net debt.<sup>263</sup> Credit rating agencies typically consider that a lower credit rating is indicated where a financial metric is persistently below its guidance level. Credit rating agencies are unlikely to lower a rating where a particular ratio is weak for a short period of

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<sup>260</sup> Ofwat, 'Reference of the PR19 final determinations: Cross-cutting issues', March 2020, p. 68, paragraph 6.52.

<sup>261</sup> Bristol Water, 'Statement of Case', April 2020, p. 20, paragraph 41; p. 25, paragraph 67.

<sup>262</sup> Bristol Water, 'Statement of Case', April 2020, p. 20, paragraph 41.

<sup>263</sup> Moody's Investor Service, 'Regulated Water Utilities – Rating Methodology', June 2018, p. 4, provided as R019.

time, particularly where the company can demonstrate mitigating action and a clear recovery plan.<sup>264</sup>

- **The headroom calculations for Bristol Water are materially impacted by reconciliation adjustments for past performance.** These adjustments amounted to revenue adjustments of £7 million in Bristol Water's final determinations; the transparency we gave about the calculation of reconciliation adjustments post PR14 means the consequence of these adjustments were well known to the company in advance and the company acknowledged headroom in its financial ratios was challenged as a result of reconciliation adjustments for past performance. We assess financeability on the basis of the notional capital structure and before reconciliation adjustments for past performance. This approach is consistent with all of our duties, with maintaining incentives on companies to bear the consequences of their actions and the approach we and other regulators have adopted in the past.
- The impact of factors that are within Bristol Water's control are illustrated in recent rating action by Moody's who downgraded Bristol Water to Baa2 with a negative outlook on 11 March 2020. The downgrade reflects Moody's view that Bristol Water will be unable to maintain financial ratios for a Baa1 rating. The rating action refers to the reduction in revenues in 2020-25 of £7.1 million as a result of outcome delivery incentive adjustments arising from difficulties in meeting targets in the previous period. The rating agency does not expect the increase in allowed returns from the CMA redetermination, if any, will be enough to restore the company's credit quality to Baa1. The negative outlook includes the risk absent material outperformance, a better re-determination and/or balance-sheet strengthening measures, financial metrics could also fall outside of the boundaries for the Baa2 rating.<sup>265</sup>
- **Bristol Water will be strongly incentivised to outperform our determination;** in a downside scenario, it has scope to manage costs and can be expected to focus on minimising ODI underperformance adjustments. The downside scenarios in paragraph 90, are underpinned by

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<sup>264</sup> Moody's Investor Services, 'Southern Water Services (Finance) Limited, Update following affirmation at Baa3, stable', March 2020, p. 3, provided as R028. For example, exhibit 2 shows a forward view for adjusted interest cover ratio of 0.6x-0.7x and the senior secured rating is Baa3, stable outlook. Moody's Investor Services, 'Thames Water Utilities Ltd, Update following PR19 final determinations and downgrade to Baa2', March 2020, p. 2, provided as R026. Key indicators shows the actual adjusted interest cover ratio was 1.2x for the years ended 31 March 2018 and 31 March 2019 and the corporate family rating was Baa1 during this time.

<sup>265</sup> Moody's Investor Service, 'Moody's downgrades Bristol Water to Baa2, negative outlook', March 2020, p. 1, provided as R010.



the stated £30 million totex gap and so are not tenable.<sup>266</sup> The actions the company takes could impact on its own credit rating, but this is consistent with the approach we anticipated in our PR19 methodology to increase company focus on issues that matter for customers.<sup>267</sup>

- **The downside scenarios prescribed for the assessment of a company's approach to financial resilience were not intended for assessment of the notional structure in the final determination.**<sup>268</sup> These were set out to allow us to compare each company's approach to its assessment of financial resilience under the actual financial structure, to allow us to understand how a company and its investors might respond in a downside scenario. However the modelling scenarios the company has assessed on a notional basis illustrate the company has strong funds from operations / net debt and gearing under all scenarios; while adjusted interest cover is weak.<sup>269</sup>

6.81 Bristol Water sets out the **mitigating measures** are not available to it given its circumstances. The company cites five mitigating measures. We comment on these issues below:

- **Acceleration of cashflows:** Bristol Water suggests there is limited scope to advance revenue through PAYG or RCV run-off.<sup>270</sup> We agree. Bristol Water has the highest PAYG rates in the sector and its RCV run-off rates are broadly in line with the sector average. We did not consider advancing revenue was necessary for Bristol Water. Average funds from operations to net debt over 2020-25 is the highest across the sectors at 13.53% whilst adjusted interest cover is marginally below the 1.5x guidance at 1.47x. We respond to the company's arguments that revenue advancement is not an effective mechanism for addressing a financeability constraint in the 'Risk and return – common issues' document.
- **Full transition to CPIH:** Bristol Water considers a full transition to CPIH is unsustainable over time.<sup>271</sup> We disagree. CPIH is a more credible measure of inflation than RPI. However, where a company proposes a faster transition to CPIH, we expected this to be supported by customer preferences given the potential impact on bills. Bristol Water has not provided such evidence in its submission.

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<sup>266</sup> Bristol Water, 'BW429. KPMG, 'Financeability of Bristol Water under the PR19 Final Determination', March 2020, p. 34, paragraph 7.3.3.

<sup>267</sup> Moody's Investor Service, 'Regulated Water Utilities – Rating Methodology', June 2018, provided as R019.

<sup>268</sup> Bristol Water, 'Statement of Case', April 2020, p. 22, paragraph 48.

<sup>269</sup> Bristol Water, 'Statement of Case', April 2020, p. 29, paragraph 87.

<sup>270</sup> Bristol Water, 'Statement of Case', April 2020, pp. 38-39, paragraphs 123-128.

<sup>271</sup> Bristol Water, 'Statement of Case', April 2020, p. 39, paragraphs 129-131.

- **Changes to the notional structure:** Bristol Water considers changes to the notional structure including reducing the notional dividend yield or changing gearing levels should not be changed to improve notional financial ratios.<sup>272</sup> We disagree. The CMA could adopt a different level of notional gearing, proportion of index linked debt or dividend yield in its determination. We set out in chapters 3 and 4 of our 'Risk and return - common issues' document that the CMA could choose to **revisit the notional gearing assumption or increase the proportion of index linked debt** in the capital structure of the notional company that it applies in its determinations to improve financeability constraints.
- **Refinancing of Artesian debt:** Bristol Water sets out it has considered approaches to replace or restructure its debt to reduce interest costs.<sup>273</sup> These issues are relevant to the actual capital structure of Bristol Water, related to the company's decision to raise a large proportion of long term debt within a short period, drawn down over 2003-2005.
- **Dividend re-investment:** Bristol Water states it has not paid dividends to ultimate shareholders over 2015-2019 and it considers the financeability issues caused by its final determination are so severe it is highly likely that dividend lock-up will apply.<sup>274</sup> Bristol Water has continued to pay dividends to fund interest on intragroup debt facilities.<sup>275</sup> As at 31 March 2015, Bristol Water was a highly geared company with gearing at 75%; dividend retention may be a reasonable response to strengthening the financial resilience of the actual structure, given an expected lower allowed return and anticipated adjustments to reflect past performance, with gearing reducing to 65% as at 31 March 2019. We consider dividend retention to be an appropriate response to mitigating a financeability constraint under both a notional and the actual capital structure. As clarified above, there are factors that are under Bristol Water's control (reconciliation adjustments for past performance and issuance of long tenor debt) that are for the company and its investors to manage.

6.82 Bristol Water argues that we failed to properly to check that a **credit rating** of Baa1 is achievable for the notional capital structure at the allowed return on capital. We disagree. Bristol Water had the highest funds from operations to net debt in its determination on account of its PAYG relative to operating costs; a large proportion of its capital expenditure is infrastructure renewals spend, which is recovered in period. Evidence since our final determination

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<sup>272</sup> Bristol Water, 'Statement of Case', April 2020, p. 39, paragraphs 132-134.

<sup>273</sup> Bristol Water, 'Statement of Case', April 2020, p. 40, paragraph 135; discussed in a confidential paper to the CMA.

<sup>274</sup> Bristol Water, 'Statement of Case', April 2020, p. 40, paragraph 136.

<sup>275</sup> [Bristol Water plc annual report and financial statements 2018/19](#), July 2019, p. 65, 'Financing and dividend policy of the group with its ultimate shareholders'.

demonstrates that efficient companies with capital structures that are close to the notional level are able to achieve a credit rating of at least Baa1/BBB+.

Ofwat (The Water Services Regulation Authority) is a non-ministerial government department. We regulate the water sector in England and Wales.

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