June 2020

Reference of the PR19 final determinations: Response to Bristol Water's 27 May submission to the CMA

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Contents

1. Introduction

1.1 In this document we present a targeted reply to Bristol Water's 27 May submission to the Competition and Markets Authority (the '27 May submission'),[1] focused on **new materials** (evidence and/or arguments), together with short references to the **key mischaracterisations** that have been made. As explained in our letter of 17 June 2020, we consider it is important to provide this written reply in order to assist the CMA in its consideration of companies' submissions. In particular, having our perspective on the new materials will enable the CMA to work most effectively.

1.2 In the interests of brevity, we do not seek in this document to set out our answer to the very many points made with which we disagree. The CMA is already burdened with an extremely large volume of submissions and materials in this redetermination. If there are any particular respects in which we have not explained our position in sufficient detail, or where the CMA would be assisted by our response to points we have not addressed, we would be happy to provide further clarification.

1.3 In its 27 May submission, Bristol Water sets out its perspective on our response to its statement of case ('our 4 May response'). On analysis, the company has not raised any genuinely new issues, however it has either presented **new arguments** on issues it has already raised or has **mischaracterised** our 4 May response.

1.4 Bristol Water has made some highly subjective claims about our 4 May response. For example, Bristol Water claims that Ofwat: 'did not address many of the issues raised in our SoC and included many misleading statements. It is felt that Ofwat have chosen to evade an adequate response to a number of important issues, and have instead made the company the target of their response.'[2] We reject such allegations. In fact our 4 May response addressed all of the key points which the CMA will need to redetermine, in a proportionate manner. In the normal way, the fact that a particular company argument is not expressly dealt with should not be taken to imply our agreement with the position stated by Bristol Water. We are of course happy to assist if the CMA requires additional detail on any of the points raised by Bristol Water.

[1] Bristol Water, 'Reply to Ofwat response', May 2020.
[2] Bristol Water, 'Reply to Ofwat response', May 2020, p. 1, paragraph 2.

Duties

1.5 At various points in its statement of case and its 27 May submission, Bristol Water presents its arguments using the language of statutory duties. In our 4 May response, we provided the CMA with a summary in one place of our position on the points related to statutory duties.[3] We have considered carefully whether it would assist the CMA for this document to provide a point-by-point rebuttal on duties. However, having analysed the company's 27 May submission, we have concluded that there is nothing which merits such treatment. Notwithstanding Bristol Water's protestations to the contrary, the principal arguments made collapse into substantive disagreement about judgements made when we reached our final determination.

1.6 There are several instances where Bristol Water more or less subtly mis-describes our position, with the result that it can knock down the supposed position for rhetorical effect. This is unhelpful. We are sure that the CMA will look beyond these arguments, and so we do not address them point by point.

1.7 There are three points particular to Bristol Water that merit a short mention:

- Bristol Water seeks to claim that we have in some way altered our interpretation of the Finance Duty.[4] This is baseless, since our approach is consistent with previous price reviews.
- Bristol Water tries hard to downplay the role of the notionally efficient company in the analysis, and to stress its view of its small company status. It presents this point as a statutory duties issue,[5] but it is the same substantive point which we have already addressed in our 4 May response.
- Finally, it is helpful to note that Bristol Water accepts that the Finance Duty entails an exercise of our regulatory judgement and discretion.[6]

Covid-19

1.8 We respond to Bristol Water's statements on Covid-19 in our accompanying 'Cross cutting response to companies' 27 May submissions' document.

[3] Ofwat, 'Reference of the PR19 final determinations: Introduction and overall stretch on costs and outcomes', May 2020, pp. 18-45.
[4] Bristol Water, 'Reply to Ofwat response', May 2020, Annex 1, pp.102-104, paragraph 17.
[5] Bristol Water, 'Reply to Ofwat response', May 2020, Annex 1, pp.102-104, paragraph 17.
[6] Bristol Water, 'Reply to Ofwat response', May 2020, Annex 1, p.101, paragraph 9.

2. Company specific adjustment

2.1 In its 27 May submission to the CMA, Bristol Water makes a series of **new arguments** relating to the company specific adjustment, some of which build on the position it set out in its statement of case. We have limited our response to provide clarifications to a number of the company's new assertions.

Cost of debt uplift

2.2 Bristol Water argues that it is a small company, and that our final determination allowed cost of debt is insufficient for small companies since it is skewed towards large company circumstances. It argues our allowance does not reflect incremental debt costs it claims are faced by small companies, ie higher yield-at-issuance and a higher share of (more expensive) embedded debt. The company proposes a small company notional cost of debt that is 59 basis points higher than its equivalent proposal for the sector.[7]

2.3 The company criticises our conclusions on its claims as inconsistent with our previous regulatory decisions and those of the CMA. However, we consider it is reasonable to review past approaches, as changes in company size and financing conditions over time may result in changes in any financing disadvantage faced by small companies. This can be seen in the case of Affinity Water and South East Water; both water-only companies whose level of allowed small company premium has reduced over time to zero, reflecting evidence that there is no significant difference between the yield at issuance of these companies and their larger peers.[8] In other words, in light of new evidence (and new ways of looking at that evidence), it is appropriate that new conclusions can be reached.

2.4 Bristol Water makes several potentially misleading suggestions about our approach at PR19, which we address in turn:

- That by awarding a 'pass' in our final determination 'Levels' assessment, we endorsed its proposed 38 basis point uplift and its higher costs as a small company.[9] As explained in our final determination, this selectively omits the

[7] Based on difference between post-uplift cost of debt and pre-uplift cost of debt proposals (see Bristol Water, 'Statement of Case', April 2020, p. 5 and p. 43).
[8] PwC, 'Company specific adjustments to the WACC', August 2014, p. 15, Figure 4.
[9] Bristol Water, 'Reply to Ofwat response', May 2020, p.13, paragraph 53.

context of our final determination decision, which was a qualified pass, assuming an uplift of 33 basis points (not the company's proposed 38 basis points).[10] This decision was based on our understanding of the evidence at the time, and so did not reflect the analysis featured in Europe Economics' recent report considering spread to benchmark gilts which points to a lower uplift of 5 basis points.[11]

- That our allowance 'excludes small company debt'.[12] This is misleading: as a cross-sectoral benchmark, the iBoxx A/BBB cannot reasonably be expected to include debt instruments from all water companies, and we do not control its composition (this being a matter for its curator, IHS Markit). Our iBoxx-based allowance of 4.47% nominal is roughly the midpoint of the range implied by the company-level average of 4.63% under our 'balance sheet approach', and the weighted average of instruments from all companies (4.25%).[13] Accordingly, we consider that bottom-up analysis of debt costs, including small company debt instruments, also supports our final determination allowance.

2.5 An important test of Bristol Water's claim that it is financially disadvantaged because of its small size is the extent to which it has in practice managed to outperform our sector benchmark and large water companies in terms of its cost of debt. On this point the evidence does not support Bristol Water's arguments:

- The company disputes that it has a lower interest cost than three large water and sewerage companies, arguing that this is down to a failure to reflect our higher (3%) long-term RPI assumption, and that its nominal interest cost is therefore 5.09%, lower only than Southern Water. Yet it is possible to infer from Yorkshire Water's 27 May submission to the CMA that its similarly adjusted cost of debt is higher than Bristol Water's, at 5.28%.[14] As the two other companies we cited (Dŵr Cymru and Southern Water) have a higher share of index-linked debt than Bristol Water, it follows that a similar inflation adjustment would widen (not narrow) the positive spread we previously stated between these two companies and Bristol Water.[15]

[10] Ofwat, 'Final determinations: Allowed return on capital technical appendix', pp. 101-102.
[11] Europe Economics, 'Further Advice on the Allowed Return on Capital for the Water Sector at PR19 – Company-Specific Adjustments', May 2020, p. 5.
[12] Bristol Water, 'Reply to Ofwat response', May 2020, p. 17, paragraph 78.
[13] Ofwat, 'Final determinations: Allowed return on capital technical appendix', p. 90, Table 6.2.
[14] Yorkshire Water, 'Reply to Ofwat's reply', May 2020, p. 212-213, paragraph 7.5.11 - the company argues that its reported cost of debt would be 37bp higher than that in its 2019 APR (4.91%) if a 3.0% RPI assumption was used. 4.91% +0.37% = 5.28%.
[15] Dŵr Cymru and Southern Water report March 2019 index-linked borrowings which are 62% and 70% of total borrowings. The equivalent figure for Bristol Water is 54%.

- The company cites a premium for its 2011 bond over the iBoXX 'BBB' index of 75 basis points.[16] Measured against the iBoxx A/BBB index actually used in our PR19 cost of debt benchmarks, we estimate a more modest spread of 21 basis points on the day of issuance.[17] This would likely reduce further if the tenor of the bond (30 years) was closer to the iBoXX weighted average years to maturity of 21.6 years on the date of issue. The company's 10 year £25 million Sun Life term loan issued in 2018 carries a fixed nominal coupon of 2.61% - 70 basis points lower than the average iBoxx A/BBB yield for 2018 (3.31%).
- We set out in our 'Risk and return response to companies' 27 May submissions' document that Bristol Water's actual cost of debt is inflated by its 2004 issuance of debt to fund an exceptionally large (£51m) shareholder distribution. We estimate that omitting this borrowing and reflecting a yield-at-issuance adjustment made by the CMA in 2015 reduces the company's weighted average cost of debt to 4.6% - close to our final determinations allowance of 4.47%.[18]

2.6 In our 4 May response, we presented evidence on spread to benchmark gilt.[19] This analysis controlled for the impact of timing and tenor on yield, and assumed that residual differences in spread were caused by the small company premium. This indicated an uplift of 5 basis points on embedded debt might be appropriate, rather than Bristol Water's proposed 38 basis points. The company raised several issues with our analysis,[20] which we respond to below:

a) **The analysis does not control for credit rating:** Bristol Water argues that the estimate of small company premium from the spread to benchmark gilt analysis could reflect credit rating differences between large and small companies rather than size. However, the company has not provided evidence showing that this looks to be a material issue – ie that credit ratings for larger companies have fallen faster or further than those for small water-only companies.

b) **The analysis includes callable bonds in the large company sample and none in the small water-only company sample.** Removing callable water and sewerage companies' bonds decreases the estimate of small company

[16] Bristol Water, 'Reply to Ofwat response', May 2020, p. 27, paragraph 117.
[17] Based on a comparison of the bond coupon (2.701%) inflated using an RPI assumption of 3.0% to 5.79%, and compared to the iBoxx A/BBB on day of issuance (5.58%).
[18] Ofwat, 'Risk and return – Response to companies' 27 May submissions to the CMA', June 2020 p. 21, paragraphs 3.32-3.34
[19] Europe Economics, 'Further Advice on the Allowed Return on Capital for the Water Sector at PR19 – Company-Specific Adjustments', May 2020, p. 5.
[20] Bristol Water, 'Reply to Ofwat response', May 2020 pp. 25-26, paragraph 113.

premium by 4 basis points; nonetheless for completeness we apply this change in our updated analysis for this submission.

c) **The analysis calculates spreads relative to a maximum 25 year gilt rate.** The Bank of England yield curves used to calculate spread-at-issuance are generally limited to 25 years up to 2005, 30 years from 2005 to 2015, and 40 years from 2016 onwards. As a simplifying assumption we have compared yield of bonds with higher tenor with the yield at a longest maturity of the available curve. All other things equal, economic theory suggests that longer tenor should result in higher yield. Because small water-only company issuance has a higher average tenor (32 years versus 28 years for the rest of the sector), and is more concentrated in the early 2000s when yield curve data is more limited, this would seem to imply that increasing the tenor of reference gilt used in the comparison to match the tenor of instrument would, if anything, reduce the small water-only company spread to gilt at issuance. This would further reduce our estimate of the small company premium.

d) **The analysis appears to selectively exclude Artesian III.** Our review of the small water-only company instruments shows that the Artesian III instrument is incorporated, but is dated incorrectly. Applying corrections increases our estimate of the small company premium by 9 basis points.

e) **There is no new evidence on water-only company issuance.** Our analysis compares bonds. We are not aware of new water-only company bonds having been issued that are not included in our sample.

2.7 We have reflected changes from b) and d) above in an updated analysis. This results in a revised small company premium calculated on a spread-to-gilt at issuance basis of 10 basis points.

2.8 Bristol Water recommends that the CMA use its consultant KPMG's analysis to inform its estimate of the small company premium. This analysis claims to control for timing, tenor and credit rating and estimates a premium of 30-47 basis points. Bristol Water suggests that we endorsed the consultancy's methodology.[21] This is misleading, we rather acknowledged the desirability in principle of controlling for timing, tenor and credit rating as factors as far as is possible, rather than the actual approach followed by KPMG.[22]

[21] Bristol Water, 'Reply to Ofwat response', May 2020, p. 25, paragraph 112.
[22] Ofwat, 'Technical Appendix 4: Company-specific adjustments to the cost of capital', January 2019, p. 16.

2.9 KPMG's analysis supporting Bristol Water's statement of case follows substantively the same approach as that which was employed for the company's draft determination representation. Then, as now, we are concerned that this analysis is not robust. The selection criteria for its base sample of large company bonds (43 instruments vs. 142 compared in the Europe Economics report analysis) is opaque. For both its Method 2 ('spread to iBoxx') and Method 3 ('spread to relevant iBoxx') approaches, the filtered sample of large company bonds being used to estimate the small company premium reduces to only eight instruments.[23] This is in our view too small a sample to give confidence that the KPMG estimates can be generalised to the sector.

2.10 In summary, we consider that the evidence that the company faces a small company cost of debt premium is not strong and has grown weaker over time. This evidence is consistent with the company's growth over the past decade, having doubled its regulatory capital value (RCV) over this period.[24] Overall, it is plausible that the company's cost of debt is not materially higher than larger companies, and so there is no case for a small company premium.

Cost of equity uplift

2.11 In common with all other companies, Bristol Water did not submit a claim for a company specific uplift to its cost of equity during the PR19 process, though at a relatively late stage in August 2019 it did cite analysis from Economic Insight, arguing that such an uplift could be justified. The company's proposed cost of capital of 2.5% (RPI) stated in its draft determination representation included an adjustment to the cost of debt but not equity.[25]

2.12 Our PR19 methodology clearly set out a process for considering company specific adjustments, involving an assessment considering the level of proposed uplift. As Bristol Water did not specifically propose a cost of equity premium, it evaded the higher level of scrutiny that otherwise would have applied.

2.13 In its statement of case, Bristol Water appeared to employ three arguments in support of its view that the efficient notional beta is higher than for the sector:

[23] BW434, KPMG - CSA Analysis (updated), 'Analysis' tab.
[24] Bristol Water's nominal RCV was £561m in March 2020; more than double its level of £271m in March 2010.
[25] Bristol Water, 'BW01 – Overview Document', August 2019, pp. 42-43, Table 4.

1) Small water-only companies have higher operational gearing (ie a higher proportion of fixed to variable costs) and this increases systematic risk.[26] This definition of operational gearing can be considered the textbook definition.[27]
2) Small water-only companies have lower capital employed relative to operating costs, resulting in 'thinner margins'. This causes profit to fluctuate more in response to shocks. [28]
3) There is a larger downside risk for Bristol Water compared to listed companies when considering final determination forecast return on regulatory equity risk ranges. [29]

2.14 We welcome the clarification provided in its 27 May response that the company is choosing to focus on argument 2.[30]

2.15 Bristol Water's claim that asset beta should be uplifted by 13% is based on this being the amount allowed by the CMA for its 2015 redetermination of Bristol Water's price control, and being close to the 16% midpoint of a range of 5% to 26% calculated by Economic Insight for Bristol Water. This exercise used PR19 draft determination data to compare the ratio of two metrics across a) Bristol Water and b) Listed companies (ie Severn Trent, United Utilities, and Pennon). The ratios are:

a) **'Operating cash flow to revenue'** – this is the 5 year financial model forecast over 2020-25 of (net cash generated in operating activities) / (appointee revenue).
b) **'RCV run-off and return on capital to final allowed revenues'** – this is the ratio of the 5 year totals to final allowed revenue.

2.16 We have reviewed these metrics. We have two main observations:

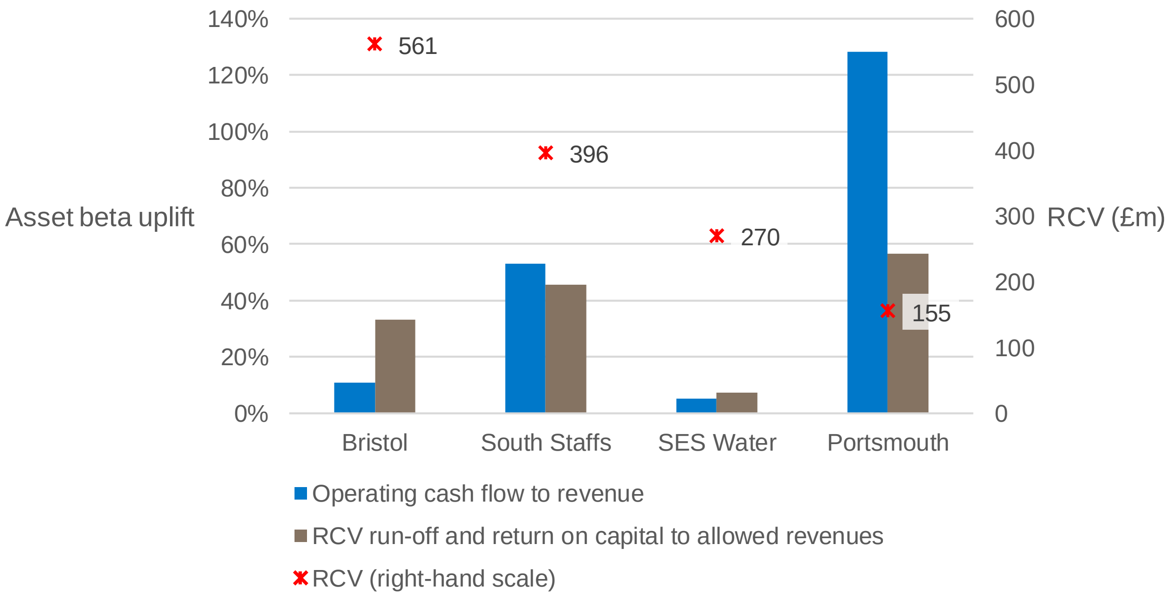
- **There is no obvious link between these metrics and 'thin margins' or systematic risk exposure.** As set out in our 4 May response, the ratios used by Economic Insight do not prove 'thin margins' or higher risk, as they wrongly assume that the entirety of RCV run-off and allowed return serves as an equity buffer against cost shocks. This is incorrect, as these revenue

[26] Bristol Water, 'Statement of Case', April 2020, p. 63, paragraph 240.
[27] For example: Brealey et al., 'Principles of Corporate Finance, 10th ed.'2011, p222 (the authors use the term 'operating leverage').
[28] Bristol Water, 'Statement of Case', April 2020, p. 63, paragraph 241.
[29] Bristol Water, 'Statement of Case', April 2020, p. 66, paragraphs 254-255.
[30] Bristol Water, 'Reply to Ofwat response', May 2020, pp. 38-39, paragraphs 158-162.

streams are provided to cover costs (eg debt service, maintenance costs).[31] Contrary to the company's claim, it also does not appear to have materially lower operating profit margins than our listed beta comparators. Considered on a notional basis, its ratio of operating profit to revenues over 2020-25 is 29%, similar to Severn Trent (29%) and United Utilities (32%).[32]

- **Economic Insight's preferred metrics give implausible and unstable estimates of beta uplift.** We have used our final determination financial model outputs to compare the uplift implied by Economic Insight's preferred metrics for companies smaller than Bristol Water when considered against the companies we use to estimate equity beta (Severn Trent and United Utilities). As set out in Figure 2.1, the metrics favoured by Economic Insight invite us to believe that Portsmouth Water should receive an uplift of between 57% and 128% of the sector asset beta. In addition, the same metrics calculate a much lower uplift for SES Water than Bristol Water – this undermines the credibility of the approach given that the former company has an RCV approximately half the size of Bristol Water's.

Figure 2.1: Cost of equity uplift implied by Economic Insight's preferred metrics



Source: Ofwat analysis of final determination financial models and allowed revenue appendices

2.17 Neither Bristol Water nor Economic Insight's response documents address our criticism of the weak link between the metrics used and exposure to systematic risk, instead preferring to simply note that they are 'consistent' with the metrics used by the CMA for its 2015 redetermination of Bristol Water's price control.

[31] Ofwat, 'Reference of the PR19 final determinations: Response to Bristol Water's statement of case', May 2020, p. 100, Paragraph 6.27.
[32] Source: Ofwat analysis of final determination financial models.

Yet it is clear that the CMA had some reservations concerning the evidence base which informed its decision, noting that 'it is difficult to identify a particular relationship between the actual form of operational gearing for water companies and the level of beta'.[33] In light of the theoretical and practical shortcomings we have identified in Bristol Water's arguments, we submit that the CMA should carry out a fresh review of the evidence before reaching its conclusion on whether small companies face a cost of equity premium.

2.18 Bristol Water disputes our claim that it did not consult with its customers on their willingness to fund an uplift to the cost of equity. Despite its latest customer engagement exercise testing a bill impact of £1.80 per household per year (the approximate bill impact of its previously requested 38 basis point cost of debt uplift), the company now concludes that its evidence shows that customers were unconditionally content to fund its higher financing costs up to a bill impact of £3 per household per year.[34] The company states that this is above the bill impact (£2.91 per household per year) it calculates for its statement of case cost of debt and equity uplifts.[35]

2.19 We set out in Table 2.1 that a more accurate average bill impact of the company's proposals including its proposals on cost of equity is around £6 per household per year, or more than three times the £1.80 per household per year figure which surveyed customers found acceptable. We suspect the reason for this error in Bristol Water's calculations can be ascribed to the company not fully counting the impact of its higher assumed notional share of embedded debt of 95% as part of its uplift, and mischaracterising its 13% asset beta uplift as a 0.40% cost of equity uplift.[36] Comparing its pre- and post-uplift proposed cost of debt and equity, the difference is 0.59% and 0.95%, respectively.[37]

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[33] CMA, 'Bristol Water plc: A reference under section 12(3)(a) of the WIA', Appendix 10.1, pp. A10(1)31-32, paragraphs 124, 132.
[34] Bristol Water, 'Reply to Ofwat response', May 2020, pp. 35-36, paragraphs 150-154.
[35] Bristol Water, 'Reply to Ofwat response', May 2020, p. 36, paragraph 154.
[36] Bristol Water, 'Reply to Ofwat response', May 2020, p. 37, Table A4.
[37] Based on difference between post-uplift cost of debt/equity and pre-uplift cost of debt/equity proposals (see Bristol Water, 'Statement of Case', April 2020, p. 5 and p. 43).

Table 2.1: Bill impact of Bristol Water's statement of case cost of debt and equity uplifts

Calculation	Item	Units	Bristol Water calculation	Ofwat calculation
A	Level of debt uplift	%	0.37%[38]	0.59%
B	Average RCV[39]	£m	525.2	574.0
C	Gearing	%	60%	60%
D = A x B x C	Debt uplift cost	£m	1.18	2.03
E	Apportionment to households	%	75%	75%
F = D x E	Debt uplift household impact	£m	0.88	1.52
G	Number of households	-	519,309	519,309
H = F x 10^6 / G	Average bill impact (debt uplift)	£/hh/yr	1.70	2.93
I	Level of equity uplift	%	0.40%	0.95%
J = I x B x (1-C)	Cost of equity value	£m	0.84	2.18
K = J x E	Equity uplift household impact	£m	0.63	1.64
L = K x 10^6 / G	Average bill impact (equity uplift)	£/hh/yr	1.21	3.15
M = H + L	**Average bill impact (all uplifts)**	**£/hh/yr**	**2.91**	**6.08**

Source: Ofwat analysis of Bristol Water Statement of Case and PR19 business plan inputs

2.20 In summary, our final determination metrics show an immaterial difference in operating profit margins between Bristol Water and our listed comparators (Severn Trent and United Utilities). The company has failed to demonstrate that its ratios of metrics matter to profitability or beta risk, and there is no stable link between the estimate of uplift from its metrics and company RCV, which would be expected for a small company premium. We accordingly do not consider that the company's submissions represent a sound basis on which to justify an uplift to sector asset beta. However, as set out in our 4 May response, if the CMA were to conclude that Bristol Water faces higher exposure to systematic risk, we maintain that the most appropriate approach would be to adjust its notional gearing level downwards.

[38] Calculated as (0.38% x 95%) + (0.25% x 5%), ie the weighted average of the company's proposed uplifts.
[39] We have used Bristol's average nominal RCV from final determinations over 2020-25. We are unsure of the provenance of the company's RCV figure.

3. Cost allowances

3.1 In its 27 May submission, Bristol Water does not present any new evidence on cost allowances however it does present **new arguments** on issues already raised. We have limited our response to provide clarifications to a small number of the company's new assertions.

Cost efficiency

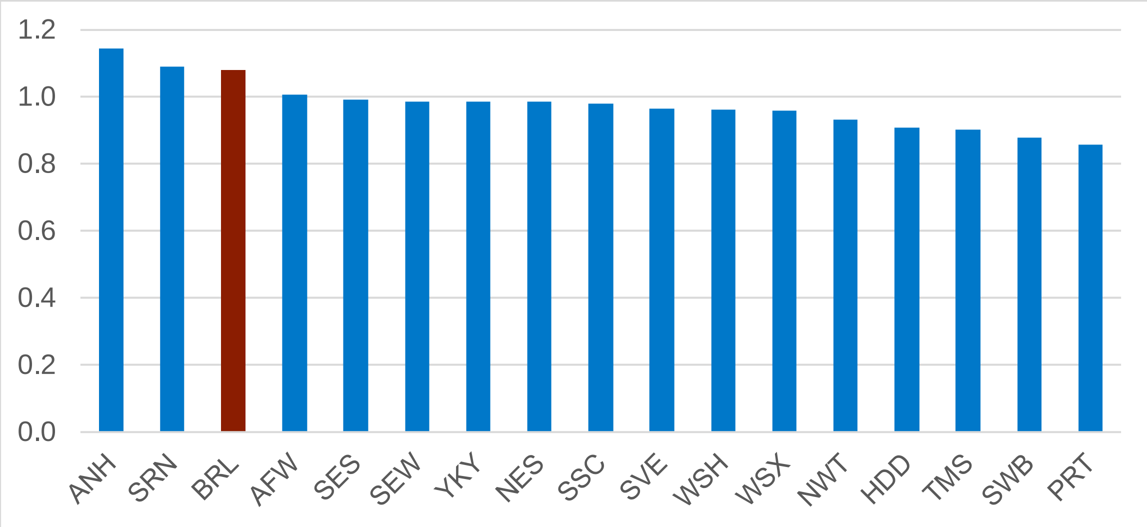
3.2 In its 27 May submission, Bristol Water argues that our reference to its own models showing the company as inefficient is misleading, as it does not refer to its more recent costs, but rather to historical costs prior to 2016-17.[40] It states that updated versions of the Nera and Oxera cost models, using data after 2016-17, show Bristol Water to be close to, or in some cases more efficient than, the upper quartile level of efficiency. [41]

3.3 **Our reference to the Nera and Oxera cost models is not misleading, as these models were used by Bristol Water to inform its September 2018 business plan requested costs**: 'We have taken the efficiency challenge implied by the modelling results set out in Table 3-12 into account in the development of our business plan by using 2016/17 as our "base" year for botex'.[42] Bristol Water has not presented any evidence, during the PR19 process, or in its submissions to the CMA, to support its statement that the updated models (using data after 2016-17) show the company to be efficient.

3.4 We therefore remain cautious about the lack of transparency behind the results of the updated models Bristol Water referenced in its statement of case.[43] We refer to our **final determination evidence which consistently shows Bristol Water to be inefficient on base costs**, across all models and all levels of aggregation. Figure 3.1 shows that the company is one of only four companies to request higher costs than our allowance in wholesale water.

[40] Bristol Water, 'Reply to Ofwat response', May 2020, p. 4, paragraph 16.
[41] Bristol Water, 'Reply to Ofwat response', May 2020, p. 49, paragraphs 217-218.
[42] Bristol Water, 'BW015 September 2018 Business Plan – Supporting Documents – Cost Efficiency', September 2018, p. 34.
[43] Bristol Water, 'Statement of Case', April 2020, p. 82, Table C1.

Figure 3.1: Wholesale water modelled base cost efficiency scores



Leakage

3.5 In our 4 May response, we argued that the company has put forward a new claim to the CMA, relating to additional cost of £13 million to maintain its leakage levels. In its 27 May submission, Bristol Water argues that the claim was included in its response to the draft determination and is therefore not new.[44] The company also responds to our comment on the lack of evidence in support of the claim, stating that there is extensive evidence in its PR19 submission, including a leakage improvement investment plan.[45]

3.6 Bristol Water has not previously submitted a cost adjustment claim requesting an adjustment to our modelled allowance in respect of atypical leakage maintenance costs. **This is a new claim by the company**.

3.7 In its business plan, the company identified £20.7 million of base expenditure as required to maintain leakage levels in the 2020-25 period. However, this was not associated with a cost adjustment claim.[46] All companies incur costs to maintain their leakage levels and we provide an allowance through our approach to modelling base expenditure. The business plan evidence and the evidence the company subsequently submitted in its statement of case and 27 May submission does not support its claim for a £13 million adjustment to its

[44] Bristol Water, 'Reply to Ofwat response', May 2020, p. 54, paragraph 250.
[45] Bristol Water, 'Reply to Ofwat response', May 2020, p. 55, paragraph 255.
[46] Bristol Water, 'Business Plan - Investment Cases - Leakage Investment Case', September 2018, p.24.

base allowance. The company has not provided an assessment of its own leakage data and activities that would support its assertion that 'in our case, the base cost allowance is insufficient to fund these activities'[47].

3.8 We also note that Bristol Water identified a low unit cost for leakage reduction in its business plan, which we have allowed in full. The low unit cost for leakage reduction identified by the company is not consistent with its new request for material additional costs for leakage maintenance.[48]

3.9 We finally note that Bristol Water states that Ofwat appears to be **double-counting frontier shift** through our challenge on leakage.[49] **This claim is incorrect**. As explained in our final determination cost technical appendix,[50] at final determination we reduced our frontier shift adjustment from 1.5% to 1.1% per year mainly in consideration of the challenge on leakage, reflecting our expectation that companies should achieve the 15% leakage reduction through technological improvements. The argument seems particularly irrelevant to Bristol Water (and Anglian Water) for which we allowed in full its requested enhancement expenditure for leakage reduction. In addition, the company states that Ofwat has not provided evidence that companies have materially underexploited technological change in leakage reduction. We provided evidence that the sector has underexploited the technological improvements of the past twenty years in our 4 May response.[51]

Growth and developer services

3.10 In Bristol Water's 27 May submission, it argues that the 12% efficiency challenge applied on the developer services reconciliation adjustment (DSRA) unit cost was inappropriately based on the April 2019 cost gap, and was not updated to reflect the cost gap after its representation on our draft determination (7.7%).[52]

[47] Bristol Water, 'Statement of Case', April 2020, p. 98, paragraph 395.
[48] Ofwat, 'A005 – Wholesale Water Enhancement feeder model Supply demand balance (update for CMA)', April 2020, sheet 'Unit costs'.
[49] Bristol Water, 'Reply to Ofwat response', May 2020, p. 54, paragraph 247-249.
[50] Ofwat, 'PR19 final determinations: Securing cost efficiency technical appendix', p. 121.
[51] Ofwat, 'Cost efficiency – response to common issues in companies' statements of case', May 2020, chapter 5.
[52] Bristol Water, 'Reply to Ofwat response', May 2020, p. 62, paragraphs 297-298.

3.11 **This is not an error**, see our explanation of the efficiency challenge in the enhancement efficiency section below.[53]

Canal & River Trust claim

3.12 Bristol Water states that any assertion we made in relation to its in-house costs is irrelevant, because it did not request an allowance for all its water resources costs in this claim.[54] Similarly, the company states that any comment made on its central costs is not relevant, as it did not request an allowance for central costs in its claim. It also states that a more appropriate approach to allocating overhead costs would be by volume of water provided, rather than by source.[55]

3.13 **Bristol Water's efficiency in relation to its in-house costs is relevant to both this claim and its business plan in general**. As we explained in our 4 May response,[56] the evidence the company provided seems to show that its high water resources costs are driven by the company's in-house costs (either due to inefficiency, misallocation of costs between price controls, or other factors not identified by Bristol Water), to which the Canal & River Trust costs are then added. In fact, the inefficiency of the in-house costs indicates opportunities to maximise the Canal & River Trust provision to reduce costs.

3.14 **The company's high level allocation of over 70% of its overhead costs to central costs is also relevant, as it demonstrates a lack of detailed understanding of where its in-house costs are spent**. We disagree that a more appropriate approach in our analysis would have been to allocate overhead costs by volume, rather than source. The company should be able to identify the activities and therefore costs of catchment management on a catchment and source basis. It is also unlikely that the central cost examples which the company highlighted (such as catchment management) will cover these costs. Bristol Water's cost allocation approach distorts its understanding of its own costs and is likely to lead to misallocation of resources and inefficiency.

[53] The two efficiency challenges are both based on the difference between the company view and our view of modelled base costs. However, we ensure that the efficiency factor used in the DSRA is only related to efficiency, rather than scope and efficiency, as explained in Ofwat, 'Reference of the PR19 final determinations: Response to Bristol Water's statement of case', p. 54, paragraphs 3.117-3.118.
[54] Bristol Water, 'Reply to Ofwat response', May 2020, p. 56, paragraph 261.
[55] Bristol Water, 'Reply to Ofwat response', May 2020, p. 57, paragraphs 263, 267.
[56] Ofwat, 'Reference of the PR19 final determinations: Response to Bristol Water's statement of case', May 2020, p. 57, paragraph 3.130.

3.15 Bristol Water argues that Ofwat's approach to proportioning overheads according to water sources was incorrect, because 'the G&S Canal does not represent a single source, it represents five sources. […] In terms of pumped storage reservoirs, there are three sources at Littleton and two at Purton, all of which are related to the abstraction from the G&S Canal.'[57]

3.16 No evidence has been submitted, either in the company's business plan or the Annual Performance Reports, to support this claim. Due to the small size of these pumped storage reservoirs, our view is that these assets are in the network plus control and are not within the water resources control.[58] This issue is less important for understanding the company's allocation of central costs,[59] however it further highlights that Bristol Water's high water resources costs may be due to allocation errors by the company.

Enhancement efficiency

3.17 The company efficiency factor reflects the inefficiency of the company's base cost proposals, as estimated by our base cost models (including any adjustment to our models). We apply the company efficiency factor as a proportionate cost challenge to low materiality enhancement proposals (ie we apply it in 'shallow dive' assessments).

3.18 Bristol Water argues that we made an error in our calculation of its company efficiency factor, as we have not updated it to reflect the company's August 2019 base cost proposals.[60]

3.19 **There is no error in our calculation of the efficiency factor for Bristol Water**. **We applied the same approach to all companies.** Companies' efficiency factor is based on their April 2019 business plan.

3.20 We do not normally allow companies to submit cost tables three times during a price review. For example, at PR14 we did not allow companies to submit cost tables after draft determination. At PR19, we asked companies to submit a subset of data tables after our draft determination consistent with our policy to

[57] Bristol Water, 'Reply to Ofwat response', May 2020, p. 57, paragraphs 264-265.
[58] The threshold for determining a reservoir as part of the water resources control is having 15 days of usable storage. See Ofwat, 'RAG 4.08, Appendix 2', January 2019.
[59] At final determination, we used the number of sources as an indicative way of highlighting how its central costs (that represent 70% of its water resources costs) could be distributed more fairly than by volume. Regardless of whether the canal source is 1/25 or 5/25, it is still substantially less than 45%.
[60] Bristol Water, 'Reply to Ofwat response', May 2020, p. 63, paragraph 302.

place 50% weight on this view of costs for the calculation of cost sharing rates. We were clear that the data we requested in August 2019 would not be used for modelling purposes, otherwise this would tend to decrease allowances for all companies without an opportunity for further representations.[61]

3.21 Importantly, after our draft determination Bristol Water reduced its forecast of base costs, but **did not reduce its forecast of enhancement costs**. There is therefore no rationale for reducing the company's efficiency factor or applying a lower cost challenge to its enhancement costs, given that the revised costs provided were restricted to base costs.

[61] Ofwat, 'PR19 final determinations: Securing cost efficiency technical appendix', p. 58.

4. Outcomes for customers

Mains repairs

4.1 In its 27 May submission, Bristol Water makes several **new arguments** relating to its mains repairs performance commitment, which we respond to below. We do not respond to arguments which the company has restated without new evidence.

4.2 **We carefully considered Bristol Water's customer engagement evidence when setting the final determination outcome delivery incentive (ODI) rate for mains repairs**.

4.3 Bristol Water argues that we have mischaracterised the August 2019 customer engagement evidence used to support its position on the mains repairs ODI rate. It alleges that we have selectively quoted from this research to suggest that customers were asked a leading question, ignoring the broader context and wider set of questions posed to customers. Bristol Water's 27 May submission also provides further information about its August 2019 Customer Forum research, noting that this research found participants were much more supportive of Bristol Water's business plan ODI package than Ofwat's draft determination ODI package.[62]

4.4 We welcome Bristol Water's explanation of its August 2019 customer research activities. However, we do not agree that this research collectively provides strong evidence that customers support a lower ODI rate for mains repairs. Bristol Water focuses on research conducted with 30 members of the Bristol Water Customer Forum (a group of Bristol Water customers), although the company itself says this 'was not the main research [conducted] on incentives or on mains bursts'.[63]

4.5 In relation to mains repairs, the Customer Forum members were specifically asked 'Do you agree with Ofwat's view that mains burst should incur a significantly larger penalty? Is it as important as supply interruptions, water quality and leakage?'.[64] As the company's 27 May submission notes, 80% of

[62] Bristol Water, 'Reply to Ofwat response', May 2020, pp. 68-71.
[63] Bristol Water, 'Reply to Ofwat response', May 2020, p. 69, paragraph 330.
[64] B001 - Bristol Water, 'Bristol Water Customer Forum - Meeting 6', August 2019, p. 29.

the 30 participants preferred Bristol Water's proposed ODI rate to Ofwat's higher ODI rate.[65]

4.6 Bristol Water's advisor, ICS Consulting, also conducted separate quantitative research on ODIs.[66] This involved 392 households and asked about the strength of incentives which should be applied to each of Bristol Water's financial performance commitments. It found that mains repairs was among customers' highest priorities for financial incentives, with 71% of respondents stating that mains repairs should have either very strong or moderate incentives. When ranked against other performance commitments, mains repairs was customers' joint fourth highest priority for strong financial incentives.[67] Notably, this is similar to the rankings awarded for the company's water quality compliance, leakage and water supply interruptions incentives, which were considered the highest, second highest and seventh highest priorities respectively. These findings differ significantly from the Customer Forum research described above.

4.7 Our final determination for mains repairs took into account a range of evidence, including both of the ODI research exercises described above. We took into consideration the sample size used, and the broader statistical robustness of research findings. Of these two exercises, the quantitative research has a significantly larger sample size than the Customer Forum research, with thirteen times as many customers represented. It therefore has greater statistical robustness, and as a result we gave it greater weight than the Customer Forum research. We recognise that the two research exercises ask different questions of customers, but we consider that both sets of questions are directly relevant to the calibration of ODI rates for mains repairs.

4.8 **We took into account Bristol Water's historical performance and 2020-25 performance commitment levels when setting the mains repairs ODI rate**.

4.9 Bristol Water argues that its historical mains repairs performance is not poor, and that this cannot justify the rejection of the ODI rate proposed in its business plan. The company alleges that we didn't criticise its historical mains performance when setting our final determination. It also provides commentary on why its mains repairs performance deteriorated during the freeze-thaw event of 2018.[68]

[65] Bristol Water, 'Reply to Ofwat response', May 2020, pp. 69-70, paragraph 333.
[66] B002 - ICS Consulting, 'Draft determinations customer research: ODIs', August 2019.
[67] B002 - ICS Consulting, 'Draft determinations customer research: ODIs', August 2019, pp. 22-26.
[68] Bristol Water, 'Reply to Ofwat response', May 2020, p. 67-68, paragraphs 320-324.

4.10 We agree that Bristol Water is not one of the worst performing companies in the industry on mains repairs, but its performance has ranked in the bottom half of the industry over recent years, and Bristol Water was the fourth worst performer in 2017-18. Moreover, the company consistently failed to meet the reference level of performance for its mains bursts performance target over 2016-19 (this target is a sub-component of Bristol Water's 'asset reliability – infrastructure' performance commitment, as noted in the company's 27 May submission). We therefore continue to have legitimate concerns about the company's poor past performance on mains repairs, and as we set out in the paragraph below, these concerns relate most strongly to the significant performance improvement required in 2020-25 and its relevance for setting the mains repairs ODI rate.

4.11 Bristol Water faces a significant challenge to meet its 2020-25 performance commitment levels, as the company's 27 May submission acknowledges. To avoid underperforming during 2020-25, the company will have to substantially improve its average level of mains repairs performance whilst also reducing the year-on-year volatility of its performance. Given these challenges, we consider it is important that the company is sufficiently incentivised to improve performance, with Bristol Water customers being appropriately compensated should the company fail to meet its 2020-25 performance commitment levels. This is a relevant consideration in setting the ODI rate, as we noted when we intervened to increase the ODI rate at draft determination.[69] We also made reference to these past performance concerns when we upheld this ODI rate at final determination, contrary to the company's claim.[70]

4.12 Bristol Water faces an appropriate level of ODI risk exposure for mains repairs.

4.13 Bristol Water argues that our final determination ODI rate results in disproportionate exposure to mains repairs performance relative to other performance commitments.[71] The company cites our ODI risk analysis from final determination, which shows that mains repairs has a large P10 risk exposure relative to other ODIs.[72]

4.14 We recognise that Bristol Water's mains repairs ODI has a large P10 exposure relative to other ODIs. We consider that Bristol Water should face strong incentives to improve its mains repairs performance, given the significant

[69] Ofwat, 'PR19 draft determinations - Bristol Water – Delivering outcomes for customers actions and interventions', July 2019, pp. 7-8.
[70] Ofwat, 'PR19 final determinations - Bristol Water – Delivering outcomes for customers final decisions', December 2019, p. 9.
[71] Bristol Water, 'Reply to Ofwat response', May 2020, p. 70, paragraphs 336-337.
[72] Ofwat, 'PR19 final determinations - Bristol Water final determination', December 2019, pp. 28-29.

reduction in mains repairs required in 2020-25. It would be inappropriate for us not to protect Bristol Water's customers from the risk of underperformance. As noted above, there is good evidence to suggest that Bristol Water's customers view mains repairs as a high priority for strong financial incentives, and we have accounted for this in setting the ODI rate.

4.15 Moreover, the P10 payment estimate for mains repairs is influenced not only by the ODI rate, but also by the P10 performance estimates applied. As we noted in our 4 May response to Bristol Water's statement of case, we compared its P10 performance estimates for mains repairs against those of other companies at final determination, and we found these estimates to be markedly more pessimistic than the industry average. We therefore adjusted Bristol Water's P10 estimates to be somewhat less pessimistic, though – leaning in the company's favour – still more pessimistic than those applied to most companies.[73] If we had instead adjusted Bristol Water's P10 performance estimates to align with the industry average (noting the company describes its 2015-20 performance as around average for the industry),[74] the P10 payment estimate would be substantially smaller and broadly comparable to the P10 payment estimates for water supply interruptions and per capita consumption.

Overall implications for RoRE

4.16 In its 27 May submission, Bristol Water builds on its position that our ODI RoRE estimates are incorrect and that we have understated the extent (and asymmetry) of its downside ODI risk. This argument is principally used to highlight that we have not properly considered the implications of the claimed 'ODI errors' for mains repairs and per capita consumption on downside risk, but the company also makes some broader criticisms of our ODI RoRE estimation approach which extend the position set out in its statement of case.

4.17 Specifically, Bristol Water criticises our position that companies' estimates of ODI risk are subject to pessimism bias. The company makes a new claim that 'this is the first time Ofwat have raised the issue' and highlights that in all previous stages of PR19 we 'accepted the need to moderate the incentive interventions for Bristol Water'.[75] The company disputes the evidence for pessimism bias at the individual ODI level and the ODI package level, and it challenges the ODI risk adjustments we made based on this evidence.

[73] Ofwat, 'Reference of the PR19 final determinations: Response to Bristol Water's statement of case', May 2020, pp. 77-78.
[74] Bristol Water, 'Reply to Ofwat response', May 2020, p. 67, paragraph 320.
[75] Bristol Water, 'Reply to Ofwat response', May 2020, p. 72-73.

4.18 Bristol Water's 27 May submission also repeats its previous argument that our P10 and P90 ODI performance estimates are inaccurate, stating that it was wrong for us to adjust these estimates when we changed companies' performance commitment levels. We addressed this argument in our 4 May response,[76] and therefore we do not refer to it here.

4.19 We respond to the company's new arguments in more detail below.

4.20 We performed comparative analysis on individual ODIs to challenge companies' P10 and P90 estimates and identify cases of company pessimism.

4.21 We do not agree that this is the first time a pessimism bias in ODI risk estimation has been raised. Our final determination Outcomes policy appendix makes clear that we compared companies' P10 and P90 estimates (relative to performance commitment levels) for common and comparable bespoke performance commitments, and we identified estimates which were significantly more pessimistic than the industry mean. We then evaluated whether there was a credible explanation for each outlier, and where we did not find sufficient evidence we adjusted P10 and P90 estimates to match the lower bound of our reasonable range.[77] We set out the adjustments we made to specific performance commitments in our Outcomes final decisions documents.

4.22 As we explained in our 4 May response, we adjusted the P10 estimates for its mains repairs and per capita consumption performance commitments because it was significantly more pessimistic than the wider industry, with insufficient evidence for this position.[78]

4.23 We were right to consider 2015-19 ODI performance, including evidence of company pessimism bias, in forming our ODI risk estimates.

4.24 Bristol Water challenges our use of 2015-19 ODI performance to inform our ODI risk aggregation approach, stating that this 'provides no meaningful evidence that companies are systematically "pessimistic"'.[79]

[76] Ofwat, 'Reference of the PR19 final determinations: Outcomes – response to common issues in companies' statements of case', May 2020, pp. 62-64, paragraphs A3-A7.
[77] Ofwat, 'PR19 final determinations: Delivering outcomes for customers policy appendix', December 2019, pp. 163-165.
[78] Ofwat, 'Reference of the PR19 final determinations: Response to Bristol Water's statement of case', May 2020, pp. 77-78.
[79] Bristol Water, 'Reply to Ofwat response', May 2020, p. 73, paragraph 353.

4.25 We explained at final determination how we used outturn ODI performance from PR14 to inform our approach to ODI risk aggregation, including evidence of company pessimism bias. This is set out in section 7.3 of our final determination Outcomes policy appendix.[80]

4.26 We do not agree with Bristol Water's assertion that we placed too much emphasis on companies' outturn ODI performance in 2015-19 when aggregating ODI risk, nor do we agree that this provides no meaningful evidence that companies are systematically pessimistic. Given that the estimation of ODI risk is inherently subjective, it is right that we consider a range of evidence in assessing ODI risk, including historical ODI performance. Comparing companies' PR14 ODI expectations against 2015-19 outturn performance provides a helpful opportunity to assess whether companies' ex-ante ODI risk estimates proved accurate. It would be inappropriate for us to disregard this recent evidence, and to place greater weight on companies' forward-looking projections of P10 and P90 performance, which are derived using a range of estimation methods.

4.27 As shown in Figure 7.1 of our final determination Outcomes policy appendix, the 2015-19 ODI evidence does provide insights on whether companies' projections have historically been pessimistic.[81] The evidence shows that most companies have performed towards the upper end of their ODI risk range, yet none of the 17 companies have performed towards the bottom end of their ODI risk range. This is an important finding which does suggest that companies were too pessimistic in projecting their 2015-20 ODI performance. As we noted at final determination, this finding is consistent with companies' incentive to overstate their downside ODI risk and understate their upside ODI risk.[82] It was right for us to take this into account as part of our ODI risk estimation approach.

[80] Ofwat, 'PR19 final determinations: Delivering outcomes for customers policy appendix', December 2019, pp. 172-176.
[81] Ofwat, 'PR19 final determinations: Delivering outcomes for customers policy appendix', December 2019, p. 162.
[82] Ofwat, 'PR19 final determinations: Delivering outcomes for customers policy appendix', December 2019, p. 162.

5. Balance of risk and return

5.1 We address the claims made by Bristol Water on the use of asymmetric cost sharing rates (including Bristol Water's claim that we should adjust cost sharing rates for the bad debt consequences of Covid-19), the sector allowed return and financeability as issues that are thematic across companies. Our response to these issues is set out in our 'Risk and return response to companies' 27 May submissions' document.

5.2 In its 27 May submission, Bristol Water makes a financeability claim that is specific to its circumstances. It states that we made no financeability assessment in the round because our focus was on financial ratios in our final determination, not the downside sensitivity analysis, and it states that this is compelling evidence that we failed to meet the finance duty.[83]

5.3 We set out our approach to assessing financeability in our 4 May response.[84] We consider that financial ratios are important indicators, however they only form part of our financeability consideration, which starts with providing an adequate equity buffer in notional gearing. We also consider mitigating actions management can take and the role of equity investors in supporting the company.

5.4 **The approach taken to the assessment of financial ratios in our financeability assessment is consistent with that set out in the PR19 methodology and with previous price reviews**. We consider the final determination for Bristol Water was financeable on the basis of the notional capital structure before the application of past performance reconciliation adjustments. Bristol Water's downside sensitivity is impacted by £7 million of reconciliation adjustments for past performance. We maintain that financeability issues arising due to past performance are matters for the company and its investors to bear, not customers.

[83] Bristol Water, 'Reply to Ofwat response', May 2020, p. 6, paragraphs 28-29.
[84] Ofwat, 'Reference of the PR19 final determinations: Risk and return – response to common issues in companies' statements of case', May 2020, pp. 103-104, paragraph 4.38.

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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