Competition & Markets Authority

Anglian Water Services Limited, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited Price Determinations

Summary of Final Determinations

Notified: 17 March 2021

Overview

1. This report contains the Competition and Markets Authority (CMA)'s price control determinations for four companies that appealed Ofwat's PR19 price control determinations:[1] Anglian Water Services Limited (Anglian); Bristol Water plc (Bristol); Northumbrian Water Limited (Northumbrian); and Yorkshire Water Services Limited (Yorkshire) (together defined here as the Disputing Companies).

2. Our role is to conduct a redetermination of the price controls for the four Disputing Companies. In doing so, we have taken account of extensive written and oral submissions from Ofwat, the Disputing Companies and Third Parties on the questions that we are required to decide. We have obtained additional facts and evidence where appropriate, including up-to-date data that was not available to Ofwat at the time it made its Final Determinations (Ofwat's FD). We have consulted widely as our thinking has developed, including through the publication of Provisional Findings and consultations on working papers.

3. While we have taken due account of the views we have heard, we are not, in this process, choosing between the positions put forward by the Disputing Companies and Ofwat. Rather, we are required to reach our own independent judgements as to the right outcome based on the facts and evidence before us and that is what we have done. In determining the price controls, our statutory duties require us to balance a range of factors. The legal framework requires us, among other things, to consider the interests of consumers through the lens not only of short-term bills but also in terms of long-term

[1] Under the applicable legal regime, the mechanism by which Ofwat's determinations can be challenged is by way of a redetermination by the CMA.

resilience (such as the ability of infrastructure to cope with increasing demand and a changing climate).

4. We are also required to ensure that Disputing Companies can finance their activities by providing a reasonable return on capital to investors. Companies issue debt or raise equity to allow them to undertake projects without relying entirely on upfront charges for customers, which limits fluctuations in customer bills and allows long-lived water assets to be paid for over time by more of the users that ultimately benefit. In return, investors require a return on finance, which customers also pay for over time.

5. Our task is limited to redetermining the price controls for the Disputing Companies alone. We are not empowered to review the regulatory system more broadly or to redetermine the price control for the water industry as a whole and nor have we done so. However, based on what we have learned during the redeterminations, we have made suggestions where we think it might be helpful about how the application of the price control mechanism might be refined in the future through, for example, the collection of additional data.

6. Our determinations follow the structure and methodology that Ofwat used in reaching its final determination and in many areas we reach the same or similar conclusions to Ofwat, including in areas of contention. However, in other areas, we conclude that the evidence requires us to modify the package that Ofwat imposed to achieve cost-effective improvements in service while at the same time securing that the Disputing Companies are financeable. In this context 'financeable' means that a water company that is operating efficiently is able to earn a reasonable return and therefore to cover the costs of financing both existing and new investment.

7. In arriving at our determinations, we have, consistent with Ofwat's approach, been demanding of the Disputing Companies, especially in terms of the quality of services provided to consumers. We have also placed weight on the consumers' interests not just in price levels but also in the stability and quality of future services which requires the Disputing Companies to be able to meet their financial obligations and to invest in water infrastructure. The key elements of our determinations are as follows:

    a. We, like Ofwat, conclude that the Disputing Companies should be incentivised to achieve further gains in cost efficiency together with stretching service quality targets in order to improve outcomes and reduce bills for customers in the longer term.

b. We increase the Disputing Companies' allowed costs relative to Ofwat's FD by £400 million or 3% over the period of the price control. This change was principally the result of our use of more recent cost data from 2019/20 (not available at the time of Ofwat's FD, nor at the time of our Provisional Findings) which we use to forecast efficient costs. This compares with a request by the Disputing Companies, in aggregate, for an increase of £1.8 billion in their allowed costs.

c. We provide for additional cost allowances where the evidence warrants it to pay for improvements in priority areas for customers, like security of supply. In the area of leakage reduction, we recognise the important principle raised by the Disputing Companies that a commitment to improve outcomes across the whole sector may require companies to spend more than in the past. Having concluded that Northumbrian had not demonstrated a need for additional leakage funding, we performed an in-depth review of the costs of achieving and maintaining lower levels of leakage for Anglian, Bristol and Yorkshire and adjusted the allowances accordingly.

d. We decide that the package of service targets and related financial incentives imposed by Ofwat should remain in place with minor modifications.

e. We broadly adopt Ofwat's approach to companies that outspend or under-spend their allowances over the price control period. This means that consumers and investors will share the benefit if the Disputing Companies are able to deliver services more efficiently than we expect and, conversely, share the risk when companies need to spend more than we have allowed. However, we impose sharing rates which are less severe towards the Disputing Companies than Ofwat's but which are better aligned with promoting lower whole-life cost solutions to longer-term problems.

f. We set an allowed rate of return (or weighted average cost of capital (WACC)) for investors that is low by historic standards. Our WACC is set at 3.2% (in CPIH-real terms) compared to a WACC of 4.7% in the previous price control period (PR14).[2] This 32% reduction in the allowed rate of return reflects a combination of market movements and changes of methodology used to calculate the WACC. Our WACC is 0.2% above the WACC determined in Ofwat's FD and 0.4% to 0.6% below the WACC requested by the Disputing Companies. While our

[2] PR14 figure is 3.74% Appointee WACC in RPI terms, inflated by current 0.9% RPI-CPIH wedge assumption and presented to 1 decimal place.

WACC is low in historic terms and significantly below the WACC requested by the Disputing Parties, we conclude that they will be able to finance their activities at this rate of return.

g. The WACC consists of two components, cost of equity and cost of debt. Our cost of equity is necessarily an estimate as it cannot be directly observed. While our estimate is very low by historic standards, it exceeds that in Ofwat's FD. This is, in part, because we decide to rely on different sources of evidence and also because we have the benefit of more up-to-date data. Our cost of equity is 0.25% above the mid-point of our range of possible estimates. However, we conclude that a cost of equity of this level is needed to secure finance and to promote investment in the sector in the long-term, in circumstances where equity costs have fallen sharply.

h. Our cost of debt largely reflects the actual costs of debt already incurred across the sector, with cross-checks designed to ensure that we are not asking consumers to pay for inefficiently incurred debt.

i. We do not include Ofwat's proposed Gearing Outperformance Sharing Mechanism (GOSM) in our determinations for the Disputing Companies. We found the mechanism was not well-designed to increase the financial resilience of the Disputing Companies and might even reduce it, in the absence of any evidence of any relevant benefits that could be shared with customers. Also, we considered there was insufficient evidence that an intervention of this nature was required for the Disputing Companies within this price control.

j. We conclude that the return we have allowed is sufficient for the Disputing Companies to finance their activities efficiently. Ofwat also concluded that its determinations were financeable but it did so by advancing cashflows from future periods through pay-as-you go (PAYG) adjustments for three out of the four Disputing Companies. We conclude that our determinations are financeable without these adjustments and note that reversing Ofwat's adjustment largely offsets the effect of our higher WACC on bills for these Disputing Companies. Our approach to assessing whether the Disputing Companies' determinations are financeable is more consistent with the approach taken by the rating agencies. We were concerned that Ofwat's approach would increase bills in the current price control without any confidence that it will in practice improve the credit-worthiness of the companies or, indeed, that on the contrary it might adversely affect financial resilience in the future which could result in higher costs for the companies and their customers.

8. The indicative impacts of our findings on average annual customer bills are provided in Table 1.[3] This table demonstrates that customers will benefit from an average £34 reduction (or 10%) in their annual bills from their level in 2019/20.

9. We have included in this table a comparison of the indicative impact of our determinations with Ofwat's FD and the Disputing Companies' business plans. This demonstrates that the outcome of our independent determinations is closer to the Disputing Companies' business plans than Ofwat's FD. This is largely because, on the basis of more up-to-date data, we have concluded that the Disputing Companies require additional allowances to operate their businesses. While we have also adopted a higher WACC than Ofwat, the impact of this on bills is, as explained in paragraph 7.j, offset to a significant degree by the reversal of Ofwat's cash-flow advancement.

Table 1: Indicative impact of our determinations on annual customer bills*

£ per year

	Historical bills (2019/20)	*Average bill in April business plan†*	*Average bill under Ofwat's Final Determination (FD)*	*Average bill under CMA final determination*
Anglian (water and sewerage)	422	418	386	400
Bristol (water only)	182	174	160	172
Northumbrian (water and sewerage)	429	343	323	335
Yorkshire (water and sewerage)	383	379	364	374

Source: CMA analysis
* Footnote: The numbers in this table reflect the average amount per customer charged, expressed at constant (inflation adjusted) prices (2017-18 CPIH deflated). Individual customer bills will vary depending on a number of factors such as the whether the property is metered or not and, for metered customers, the amount of water consumed.
† Footnote: The April business plan figures here are taken from Ofwat's published documents and may not align with all of the implications of the company's submissions in their Statement of Case or subsequently.

Background

10. Ofwat is the economic regulator for the monopoly water suppliers in England and Wales. Every five years, it carries out reviews of the price controls applying to these suppliers. These set the maximum revenues the companies can raise from customers. Ofwat's most recent PR19 price review, which governs the period 2020 to 2025, is the subject of these redeterminations.

11. Ofwat's themes for PR19 included long-term resilience in the round, affordable bills, innovation and great customer service. Ofwat said that from

[3] The price control sets revenue allowances for the individual companies. This determines the average bill that the company can charge its customers. Individual bills will vary depending on the charging scheme adopted by the company, see Ofwat's information on charging.

the initial development of the PR19 methodology it had been clear with companies that the price review was not going to preserve the status quo as the sector faced profound challenges, such as climate change, population growth and shifting customer expectations and so the sector needed to strengthen its operational performance. It said it was important to set a stretching but achievable level of overall challenge. Its concerns included that productivity growth had stagnated and that there was little overall leakage reduction, even though some companies had managed to achieve high performance on service measures and high cost efficiency. It noted though that companies, on average, had tended to outperform the cost allowances in past periods.

12. In its ‘Putting the sector in balance’ position statement in 2018,[4] Ofwat raised further concerns about high dividend payments; levels of executive pay; and complicated and potentially risky financial structures which it said call financial resilience into question. At PR19 it introduced the GOSM that it said would share the benefits of higher gearing with customers.

13. On 17 December 2019, Ofwat published its FD of the PR19 price controls applying to all the water and wastewater service suppliers in England and Wales for the asset management period 2020-2025 (also referred to as AMP7).

14. The Disputing Companies asked that Ofwat refer their price controls to the CMA for redetermination and Ofwat did so on 19 March 2020.

15. The reasons for rejecting the PR19 determinations identified by the Disputing Companies included that Ofwat had:

    a. provided insufficient funding to deliver business plans including enhancement expenditure to improve resilience;

    b. failed to recognise the link between costs incurred and delivering higher levels of service (the ‘cost-service disconnect’);

    c. inappropriately set too low a cost of capital;

    d. given insufficient weight to evidence on customer views; and

    e. increased levels of risk for companies (notably from asymmetric outcome delivery incentives (ODIs)) and, together with the other elements of the determination, this had undermined their financeability.

[4] Ofwat (2018), *Putting the sector in balance: position statement on PR19 business plans*, section 6

16. In general terms, the Disputing Companies argued that Ofwat was overly concerned with short-term bill impact at the expense of other factors like resilience.

17. The Disputing Companies operate in different areas of the country and face, to some extent, different topographies, populations and climates which, in turn, impact the nature of the cost and service challenges they face. There are also differences in their activities: Anglian, Northumbrian and Yorkshire all supply both water and wastewater (sewerage) services, while Bristol supplies only water.[5]

18. The price paid by each customer is not set directly by the price control. Rather, the companies' tariffs must be consistent with the revenue limits, which are derived from costs and levels of profit which the regulator identifies as allowable on the basis of its statutory duties. Ofwat also sets service quality targets, reinforced by a package of financial and reputational incentives. When reaching its determination, Ofwat is bound by a number of statutory duties, both primary and secondary, and, with respect to English water companies, it has to act in accordance with objectives set out in a Strategic Policy Statement (SPS) issued by the Department of Environment, Food and Rural Affairs (Defra).

19. As noted in paragraphs 2 and 3, in carrying out a redetermination, the CMA is not bound simply to accept or reject the position adopted by Ofwat or the Disputing Companies; rather we evaluate the evidence and adopt what we consider to be the best approach to the issues we are deciding on. In doing so we must take account of the same statutory duties as Ofwat (including the SPS).

20. The scope of our determinations extends to all aspects of the price control and not just the issues raised by the Disputing Companies. However, we have prioritised our consideration of what we regarded as the key elements of the price controls in light of the time and resources available and so have not carried out an in-depth consideration of all aspects of the price control.

21. Water and wastewater services are essential to customers. We have been mindful of the issue of vulnerable customers, both those who are financially vulnerable and so face difficulties meeting their water bills and those who are vulnerable for other reasons. There are a variety of measures in use by the water companies to address these concerns, for example, through running a

[5] Water companies are either water and sewerage companies (WASCs), or water-only companies (WOCs). Some WASCs also own WOCs; for example Northumbrian, in addition to its operations in the North East of England, owns Essex & Suffolk Water, a WOC.

Priority Services Register and offering social tariffs. While we consider these extremely important, most of these measures lie outside the scope of the price control. Where relevant to the price control, we have given these careful consideration.

22. We have used the same regulatory building blocks as Ofwat used in its determinations. In particular, we have maintained Ofwat's approach of:

    a. setting four wholesale price controls covering different activities, managing bioresources as an average revenue control and setting a retail price control; and

    b. separating our assessment into its major component parts around costs, service and financial returns.

23. While we did not consider it would be practicable to adopt a wholly different regulatory framework within the context of our redeterminations, there are also a number of areas which have arisen in our assessment where we considered that Ofwat's approach was flawed and we have rejected or adapted that approach. We have also noted in our report where consideration should be given to refinements to aspects of the regime in the future.

24. This report sets out our decisions in relation to each of the major building blocks of the price control. In reaching our decisions we have taken account of the same statutory duties as applied to Ofwat, and we have had regard to the principles of best regulatory practice and the need to act in accordance with the SPS, but have exercised our own regulatory discretion in appropriately balancing these statutory duties.

25. In reaching our conclusions we have taken into account additional evidence that was not available at the time of Ofwat's FD. We have considered updated market data, submissions of the Main Parties and Third Parties, reviews of business plans and specific projects, and the advice of engineering advisers, to reach these conclusions.

26. We have used cost data from the last year of the previous price control (2019/20) that was not available at the time of Ofwat's FD (or when we published our Provisional Findings). We recognise that by including 2019/20 data we introduce a risk that the Disputing Companies' allowance could be overestimated due to the possibility that a limited amount of investment has been brought forward into 2019/20. However, we consider that the advantages of using the most up-to-date data (such as accounting for the most recent information and increasing the number of observations in the model) outweigh the risks of potential bias, noting that other sources of potential bias due to anticipated or deferred expenditure may work in the

opposite direction, regardless of whether we make use of the most recent data.

27. In order to finally determine the price controls for each company for each activity, we have translated our decisions on each of the building blocks into a revenue allowance for each Disputing Company.

28. We have considered the extent to which we should take account of the impact of Coronavirus (COVID-19) on water companies' costs and performance in our determinations. However, there are significant difficulties in assessing these impacts within the framework of the redetermination given that the pandemic has not yet run its course. There remains significant uncertainty regarding the full impact of COVID-19 on the water sector as well as the timing, duration and scale of such impacts. For these reasons, we consider that the best mechanism for taking direct account of impacts of COVID-19 is for Ofwat to consider these as part of an industry-wide process; Ofwat has proposed it will consider the need for any ex-post adjustments at a time aligned to its normal PR19 reconciliation process.

Totex (total expenditure)

29. We set a funding allowance (totex) to cover forecast necessary costs, covering both base expenditure, which covers routine costs that companies incur, and enhancement expenditure, which covers the costs of enhancing the capacity or quality of the services provided by the water companies. Base costs account for approximately 75% of totex across the industry.

30. Accordingly, totex covers both operating expenditure (opex) and capital expenditure (capex); this approach was introduced by Ofwat at the previous PR14 price control to incentivise overall efficiency and address concerns that previous approaches assessing capex and opex separately had led to a focus on capital solutions at the expense of possibly more efficient opex solutions.

31. In order to mitigate the risk that we set a totex allowance that turns out to be either too low or too high, and in line with Ofwat's approach, we include an overall totex cost-sharing mechanism which applies to the majority of totex. Under the cost-sharing mechanism, if a company underspends its allowance, customers share in the saving made. Conversely, if the company needs to overspend to deliver the necessary services, it can recover part of the costs from customers.

32. The proportions in which any cost difference is shared between customers and investors is known as the sharing rate. Ofwat applied a formula to determine the sharing rate for each company which was designed both to

provide incentives for accurate information revelation in the business plans that companies submit as part of Ofwat's price control process and to provide incentives to be more efficient.

33. We agree with Ofwat that there is merit in providing incentives for companies to provide accurate business plan information during the price control process. However, we also considered that the cost-sharing mechanism should avoid creating a significant risk of perverse incentives, particularly in relation to schemes that require investment over multiple periods. Such mechanisms should balance the need to set strong efficiency incentives with the need to appropriately mitigate the risks of over and under performance, some of which will likely relate to factors outside the companies' control. We therefore decide to depart from Ofwat's cost sharing rates and apply the same asymmetric rate to all of the Disputing Companies. Our approach results in the company bearing 55% of the cost of any overspend and receiving 45% of the benefit of any underspend.

Modelled base costs

34. Water companies conduct many routine activities in order to run their businesses and provide a base level of service to customers.

35. We adopt an econometric modelling approach to assess most of the costs of this base level of service, using data from across the sector. Comparative benchmarking allows us to estimate the efficient costs for these day-to-day operations, rather than relying on individual company data or forecasts. Our modelling approach is similar to Ofwat's, although we adjust the econometric models and expand the dataset by including data from 2019/20 (which was not available at the time of Ofwat's FD). This results in some adjustments to the base costs allowances.

36. Our cost models estimate how much it would cost the averagely efficient water company to cover base operations. However, we want to set cost allowances for a water company that is more than merely averagely efficient, and so we apply a 'catch up' efficiency challenge. Our decision is to use the company at the upper quartile as the benchmark and reduce the Disputing Companies' allowances accordingly. We consider this sets a challenging benchmark whilst acknowledging the limitations of our econometric modelling (and the consequent risk that the company will have insufficient allowed revenue to ensure a base level of service). Our benchmark is set at a similar, although slightly less demanding, level to Ofwat's.

37. Future costs are likely to differ from the historical benchmarks because of changes to productivity levels and input costs. We therefore:

a. Apply a ‘frontier shift’ which reduces the modelled allowance by 1% per year to reflect expected productivity gains from improvements in technology and new ways of working. This adjustment, which reflects the evidence of productivity levels in other sectors, is slightly lower than the equivalent adjustment made by Ofwat.

b. Provide a real price effect (RPE) adjustment for labour costs. We also include a reconciliation mechanism for these labour costs to protect both customers and the company if there are differences between forecasts and actual wage inflation. The evidence we reviewed did not support introducing RPEs for other cost categories.

38. Serving new properties involves additional costs for water companies: both the costs of installing new connections, and from the demand increase, necessitating reinforced or additional infrastructure. Like Ofwat, we:

a. reduce or increase the allowance depending on whether forecast growth is above or below the industry average; and

b. include a reconciliation mechanism to protect against differences between forecasts and actual growth.

39. However, we apply these differently than Ofwat. First, we decide to use symmetrical downward and upward adjustments for the impact of forecast growth, whereas Ofwat had applied a more limited downward adjustment in revenues in respect of lower than industry average growth. Second, we expand the scope of the reconciliation mechanism better to reflect the costs associated with growth.

40. Ofwat’s historical data collection approach contained no distinction between base opex and enhancement opex. Therefore, Ofwat’s modelled base costs could double-count enhancement opex if an adjustment was not applied. We decide to use the same approach as Ofwat used in its FD, which is to estimate an implicit allowance for enhancement opex and adjust the companies’ allowance accordingly.

41. The approach described above is reliant on econometric models which are based on a limited set of explanatory variables and, like any econometric model, are subject to some limitations and a degree of uncertainty in their final estimates. This means that there could be company specific circumstances which are not reflected in our modelling. We have therefore, like Ofwat, assessed whether any cost adjustments should be made to reflect individual Disputing Companies’ specific circumstances.

42. We assessed a small number of cost adjustment claims raised by Anglian, Bristol and Yorkshire. These included claims relating to capital maintenance and sludge transport, which we reject, and for Bristol, a claim for abstraction costs, which we partially accept. We also, as described in paragraph 79, accept requests for additional funding for leakage.

Unmodelled base costs

43. In designing our base models discussed above, we have excluded certain costs that are unsuitable for modelling where, for example, there is insufficient data for modelling or where exceptional circumstances apply to particular companies. We refer to these as unmodelled base costs. These include costs associated with abstraction, business rates, and compliance with the Industrial Emissions Directive (IED) and Traffic Management Act (TMA).

44. Ofwat made an allowance for the companies' unmodelled costs, and we decide that these are largely appropriate. We also generally agree with Ofwat's approach to applying a cost-sharing mechanism to these costs which took account of the extent to which they lie within management control.

45. We make some company-specific decisions on certain unmodelled costs as follows:

   a. Bristol: We allow most of the cost adjustment claim it made to reflect its costs of purchasing water from the Gloucester and Sharpness Canal (G&S Canal).

   b. Northumbrian:

      i. Northumbrian has atypical abstraction costs associated with the Kielder Reservoir, that have increased following an Environment Agency consultation which finished after Ofwat's FD was published. It has also experienced a cost increase since Ofwat's FD in relation to bulk supply costs from Thames Water. We reflect this new information by allowing Northumbrian additional allowances to cover these costs.

      ii. Business rates: Ofwat was not aware of, and did not reflect in its FD, a revision of Northumbrian's rateable values which took place in 2018. This resulted in an over allowance, which we remove in our determination.

      iii. IED compliance costs: We decide to make a relatively small allowance to cover some costs to ensure compliance with the IED due to changing interpretation of this legislation.

46. We also conclude that the cost-sharing rates for business rates costs should differ to some extent from those applied more generally to unmodelled costs, reflecting the relatively limited degree of management control over these costs.

47. We do not apply a frontier shift to business rates or abstraction charges as we conclude that these costs were in the most part outside of company control. However, we apply a frontier shift to other unmodelled costs of 1% together with a labour RPE (with a true-up mechanism where labour costs differ from forecasts). We consider our approach does not give rise to any double-counting necessitating an adjustment.

48. Our conclusions with respect to the base cost allowance for each Disputing Company are set out in Table 2.

Table 2: Base cost allowances for each Disputing Company

£m (over 5 years)*

	Anglian	*Bristol*	*Northumbrian*	*Yorkshire*
Raw base models	3,494	367	2,133	3,161
Catch-up	-66	-5	-37	-57
Frontier shift + RPEs	-56	-6	-34	-51
Growth	30	4	-39	-47
Enhancement Opex	-14	-3	-11	-14
Cost adjustment claims	43	10	5	16
Total modelled base costs	**3,430**	**367**	**2,016**	**3,008**
Abstraction charges	50	15	200	26
Traffic management	6	4	6	21
Business rates (Local authority and cumulo rates)	311	24	185	280
IED compliance costs	0	0	12	0
Total unmodelled base costs	**367**	**43**	**402**	**327**
Total base costs	**3,797**	**410**	**2,418**	**3,335**
Change vs Ofwat FD (£m)	*+71*	*+28*	*+87*	*+121*
Change vs Ofwat FD (%)	*+1.9%*	*+7.5%*	*+3.8%*	*+3.7%*

Source: CMA analysis
* Footnote: £ million over the whole 2020-25 price control in 2017-18 CPIH deflated prices

Enhancement costs

49. Within Ofwat's framework, the enhancement allowance is intended to cover the costs of the water companies undertaking investment to enhance the resilience, capacity or quality of service beyond a base level, such as building a new reservoir or treatment works, building strategic interconnectors to connect up parts of the network, and introducing new measures to protect wildlife.

50. Enhancement expenditure may be driven by a number of factors, including new statutory obligations and strategic priorities. The largest of these are generally:

a. Environmental improvements: Water companies have proposed numerous environmental projects, whilst also facing increasing obligations to improve their environmental outcomes including from the increased scope of the water industry national environment programme (WINEP) which is a set of statutory requirements overseen by the Environment Agency. In particular, Anglian, Northumbrian and Yorkshire face significant additional costs to remove phosphorus (which can cause excessive algal growth if discharged into rivers) from wastewater.

b. Supply-demand balance: One of the responsibilities of a water company is to secure a balance of supply and demand including in the light of ongoing trends such as climate change and population growth. Water companies have a statutory requirement to develop a water resource management plan (WRMP) every five years, setting out how they intend to balance supply and demand over at least the next 25 years. Supply-demand balance can be influenced by investment in major new infrastructure (eg reservoirs) but also by measures to reduce leakage or reduce consumption.

c. Resilience: Enhancement funding aims to provide improved operational resilience by funding schemes which address the risk of low-probability high-consequence events, such as ensuring properties are not reliant on a single source of supply or adding in additional support / back-up for critical infrastructure.

51. In Ofwat’s FD, the four Disputing Companies were awarded enhancement allowances totalling £2.7 billion. This is substantially higher than their expenditure in previous periods and reflects (amongst other things) material new WINEP obligations.

52. Ofwat’s preferred method of assessment for enhancement was a benchmarking analysis of forecast costs. For other categories, Ofwat followed a ‘risk-based process’ of having a lighter touch (‘shallow dive’) assessment for low materiality costs and a more thorough assessment of the evidence (‘deep dive’) for high materiality costs, each based on the company’s business plans.

53. In our review of enhancement expenditure, we have generally focused on areas where Ofwat and the Disputing Companies have provided conflicting views and where we needed to resolve these in coming to our determination. These accounted for the majority of enhancement spend. For other enhancement expenditure, including some major schemes which met Ofwat’s evidential threshold to receive additional enhancement funding, we adopt the same approach as Ofwat did in its FD.

54. We have adopted the same broad approach as Ofwat to assess enhancement allowances, including a combination of benchmarking, deep dives and shallow dives. We have applied these approaches to categories of spend for the Disputing Companies, and, like Ofwat, consider any efficiency challenges which should be applied to these allowances. Our approach often involved an assessment of additional evidence or arguments which were not available at the time of Ofwat's FD.

55. We have made use of comparative data (including modelling, engineering comparisons and cost benchmarking comparisons) where available to develop our best estimate for efficient enhancement costs. Where a comparative approach is not appropriate, we are more reliant on evidence provided by the company proposing the enhancement. In these cases, we have, with the assistance of our engineering advisers, where necessary, reviewed the evidence provided by the Disputing Companies about the need for and costs of the more material schemes to assure ourselves that the proposed investment is both appropriate and efficiently delivered.

56. We apply efficiency challenges and reduce allowances where we are concerned about the robustness of the evidence provided for enhancement schemes. In doing so we are seeking to ensure that customers do not overpay for inefficient service whilst also ensuring sufficient allowance is available to achieve the enhanced level/quality of service. Consistent with our decision on base costs above, we apply a frontier shift on all enhancement costs (not just WINEP and metering as Ofwat did) together with a labour RPE. We do this in a way that avoids double-counting the efficiency challenges that we apply.

57. The most material enhancement area where both Ofwat and we decided to use benchmarking relates to phosphorus-removal and wastewater WINEP allowances more generally. These are large and broadly comparable programmes of work. Our decision is to make adjustments to Ofwat's phosphorus-removal allowances using a broader range of model specifications but to adopt the same overall approach. This results in relatively modest increased allowances for Northumbrian and Yorkshire of around £4 million and £9 million respectively.

58. The Disputing Companies raised a number of specific projects where they argued that Ofwat had not approved sufficient, or any, funding. Ofwat rejected applications for enhancement projects where it decided that the company in question had not demonstrated that key considerations had been met, such as sufficient need for the project, that the proposal was the best option for customers, and that it had been robustly and efficiently costed. We also needed to be satisfied on these issues but have undertaken our own

appraisals of the proposed projects and have had the benefit of additional evidence where available.

59. For Anglian these projects are:

a. Strategic Interconnector Programme: Anglian proposed to build a series of interconnectors to transport water around its region in order to provide for an improved supply-demand balance and increased resilience. We are supportive of this aim and the benefits it will bring customers. After careful review, we consider that Anglian has demonstrated its plans are prudent and costs are efficient. We provide Anglian with its full requested additional allowance for this scheme.

b. Smart Metering Scheme: Anglian proposed to install smart meters in nearly all properties in its region by 2030, which would particularly assist with reducing leakage and water consumption in an area of the country which has relatively little rainfall. We are supportive of Anglian's proposal but concerned that certain elements of its requested allowance would result in customers paying twice for the same activities as metering forms an element of base activities. We therefore allow some but not all of Anglian's requested allowance to cover the incremental costs of installing smart meters.

c. Water Resilience Scheme: Anglian included a request for additional funds for the replacement of certain assets within its water treatment works, and development of a new risk planning tool. Our decision is that these activities represent incremental improvements which the sector has delivered, and continues to deliver, as part of its day-to-day operational functions, and so we reject Anglian's request for an additional allowance for this scheme.

d. Security-related activities: Anglian included a request for additional funds for the delivery of certain water security-related activities. We do not increase Anglian's allowances on Security and Emergency Direction (SEMD)[6] activities since these have been funded already in PR14. For non-SEMD activities we provide an additional allowance, but with an efficiency challenge on aspects where the evidence provided on cost efficiency was insufficiently robust.

[6] The Security and Emergency Measures (Water and Sewerage Undertakers) Direction 1998 directs undertakers to maintain plans to provide a supply of water at all times. The Security and Emergency Measures (Water Undertakers) Direction 2006 places a qualified duty on undertakers to provide a water supply to a licensed water supplier where (i) there is an access agreement in place and (ii) the licensed water supplier requests the water undertaker to provide it with a supply of water in the event that the licensed water supplier is unable to provide a supply to its customers due to an emergency or security event.

e. Bioresources Scheme: Anglian proposed to expand one of its sludge treatment centres to accommodate expected increases in the level of sludge being produced in the future. We find that this proposal is reasonable given the limited availability of alternative capacity from other suppliers, and reflects an efficient whole-life approach to the issue identified. However, we challenge certain costs which were not directly associated with the scheme or would already have been funded through the rest of the determination.

60. In addition to the above schemes, we have considered Anglian's costs for removing metaldehyde from water, following the reintroduction of a ban on the use of this pesticide part way through the price control period. We consider that Anglian has atypically high costs due to metaldehyde's extensive use in its region. We allow £12.7 million to ensure Anglian is funded for the water treatment and product substitution activities necessary until metaldehyde is no longer in the environment.

61. We also considered Anglian's exposure to uncertainty in relation to its Elsham scheme (which will provide additional water transfer, storage and treatment capacity) and the potential to deliver this in-house. We decide that the arrangements which Ofwat has put in place provide an appropriate means to resolve this issue, and so make no associated changes to totex allowances, performance commitments (PCs), or outcome delivery incentives (ODIs) as part of our determination.

62. For Northumbrian, these projects are:

a. Essex Resilience Scheme: Northumbrian proposed to build a new interconnector for Essex & Suffolk Water to allow the transfer of raw water between its reservoir in Abberton and its reservoir in Hanningfield, to mitigate the risk of substantial supply loss to the local area (in the context of ongoing climate change, population growth, and other risk factors). We consider that, in light of the nature of the risk, the cost of addressing the issue is relatively modest particularly given the number of households affected and the long-life nature of the solution which would provide ongoing benefits for many years to come. We provide an allowance for this scheme. However, we have some concerns around the level of evidence provided on cost efficiency for the scheme, so apply a 10% challenge to Northumbrian's request; and

b. Sewer Flooding Resilience Scheme: Northumbrian proposed to undertake a 'proactive' scheme to reduce the risk of sewer flooding in properties which have not previously been flooded. We do not include any increased allowance for this scheme as we have not seen robust evidence that the scheme proposed by Northumbrian represents incremental benefits for customers which should attract additional enhancement funding, rather than simply reflecting an alternative approach to carrying out its base activities (which are already funded).

63. For Yorkshire, these projects are:

a. Living with Water Partnership in Hull and Haltemprice: We provide additional enhancement funding to help address the unique circumstances in this area which result in an increased risk of flooding. However, we apply an efficiency challenge to the estimate included in Yorkshire's business plan; and

b. Internal Sewer Flooding Scheme: Yorkshire submitted that its region has a higher prevalence of cellars and back-to-back properties which result in a higher number of internal sewer flooding incidents, and requested funding to address this issue. We do not provide any increased allowance for this scheme as we have not seen robust evidence to support Yorkshire's claims that this is a material, unique factor which justifies additional funding.

64. Bristol did not raise any specific enhancement schemes which required us to undertake a deep dive review.

65. When providing companies with specific funding to undertake additional activities, there is a risk that the company does not subsequently choose to proceed with the scheme while customers nonetheless bear the cost. In order to ensure that the higher level of service being funded by these schemes is delivered, we include a number of scheme-specific mechanisms to protect customers from non- or under-delivery of these schemes.

66. Our determinations of the Disputing Companies' wholesale totex allowances are shown in Table 3.

Table 3: Enhancement cost allowances for each Disputing Company compared with Ofwat's FD

£ million†

	Anglian	*Bristol*	*Northumbrian*	*Yorkshire*
Ofwat FD allowance	**1,425**	**30**	**352**	**906**
Water models	0	0	0	0
Wastewater models (incl WINEP)	0	N/A	+4	+9
Shallow dive challenges	0	0	0	0
Deep dive challenges	0	0	-7	-5
Deep dives	+50	0	+18	+7
Metaldehyde	+13	0	0	0
Frontier shift*	-14	-1	-5	-1
Net change in leakage	-7	0	0	+28
Total enhancement allowance	**1,466**	**30**	**363**	**943**
Change vs Ofwat FD (£m)	*+41*	*-0.3*	*+11*	*+38*
Change vs Ofwat FD (%)	*+2.9%*	*-1.0%*	*+3.1%*	*+4.2%*

Source: CMA analysis
* Footnote: Figures reported in the table above this line do not include the effects of frontier shift – all of this challenge is included in the specified row; this row includes both changes to scope and scale of frontier shift as well as removal of double-counting with shallow dives
† Footnote: £ million over the whole 2020-25 price control in 2017-18 CPIH deflated prices

Overall totex

67. Our determinations of the Disputing Companies' wholesale totex allowances are shown in Table 4.

Table 4: Totex cost allowances for each Disputing Company

£ million†

	Anglian	*Bristol*	*Northumbrian*	*Yorkshire*
Modelled base allowance (including CAC)	3,430	367	2,016	3,008
Unmodelled allowance	367	43	402	327
Enhancement allowance	1,466	30	363	943
Other totex allowances*	-90	-7	-40	-67
Total	**5,173**	**432**	**2,742**	**4,211**
Change vs Ofwat FD (£m)	*+108*	*+27*	*+112*	*+158*
Change vs Ofwat FD (%)	*+2.1%*	*+6.6%*	*+4.3%*	*+3.9%*

Source: CMA analysis
* Footnote: Other totex allowances include operating lease adjustments; strategic regional water resources solutions and other cash items; third party costs; non-section 185 diversions; ex-ante cost sharing adjustment; grants and contributions (after adjustment for income offset, and updated for our determination); and pension deficit recovery costs. Prices are deflated for inflation (based on Consumer Prices Index Including Owner Occupiers' Housing Costs (CPIH) measure).
† Footnote: £ million over the whole 2020-25 price control in 2017-18 CPIH deflated prices

Outcomes

68. Ofwat's FD included a large number of performance targets or commitments for each company, supported by a package of financial and reputational delivery incentives.

69. These PCs and ODIs were derived from proposals made by the companies, having conducted research into customers' priorities and willingness to fund

incentives. Ofwat intervened in the companies' proposals on PCs and ODI rates or structure where it considered appropriate having conducted a comparative evaluation of company proposals, and taking account of customer views, and performance in previous price control periods.

70. The resulting package included eleven Common PCs applying to all water companies and a further four Common PCs applying to all WASCs, as well as a number of Bespoke PCs for each company. The Common PCs covered areas such as:

   a. performance level measures (for example, water supply interruptions and pollution incidents);

   b. asset health measures (such as mains repairs and sewer collapses);

   c. measures to reduce water demand (leakage and per capita consumption); and

   d. measures to help vulnerable consumers (priority service register).

71. Most PCs were accompanied by financial incentives in the form of ODIs, either as designed by the companies based on customer research, or as amended by Ofwat. In some cases, Ofwat set symmetrical ODI rates with the same rates for out and under-performance, while in other cases asymmetrical rates were used. Ofwat also made use of so-called penalty-only ODIs, which carry a penalty for under-performance but no reward for out-performance. Ofwat also made use of so-called 'enhanced ODI rates', which provide a higher rate of reward (or penalty) for performance beyond (or below) a given threshold.

72. The ODIs included caps on the level of outperformance rewards (both at standard and enhanced rates) in some circumstances to limit these and the consequent impact on customer bills. Likewise, the ODIs included penalty collars to limit the company risk of incurring substantial under-performance penalties. In some cases, the ODIs also included 'deadbands', which allow for a degree of under-performance before a penalty is triggered.

73. Ofwat's approach to outcomes and PCs at PR19 included:

   a. Setting three Common PCs on the basis of upper quartile forecast performance, with the remainder set with reference to the ranges of anticipated performance included in companies' business plans.

   b. Seeking a minimum reduction of 15% for leakage.

c. Having a 3% gross RoRE (return on regulatory equity) limit on the overall size of any outperformance rewards earned and a 3% gross limit on the overall size of any under-performance penalties incurred by a company.

74. Overall, we decide that the package of PCs and ODIs imposed by Ofwat should largely remain in place. In doing so, we conclude that:

a. Ofwat was right to intervene in company business plans to take account of comparisons between companies and that doing so did not inappropriately ignore differences between topographies or weather conditions;

b. There is no simple cost-service relationship whereby more demanding PCs should always be accompanied by higher costs. Moreover, for the PCs other than leakage, we have not found that the improvements in performance required by the Common PCs are sufficiently large as to justify an increase in cost allowances across the companies.

c. The extensive engagement and research undertaken by companies in PR19 has gone a long way to encourage company business plans and regulatory decisions to reflect the specific priorities and values of customers and the outcomes framework is an area where customers and key stakeholders properly play a role in determining the standards of performance that companies should be held to account against. That said, we consider there are limits to the weight that can or should be placed on customer research evidence in this area, for example reflecting that customers have less information about comparator companies than the regulator.

75. We also conclude that the use of asymmetric or penalty-only incentives may be appropriate in certain circumstances, for example, where there is evidence that customers would not be willing to pay for out-performance or there are diminishing economic benefits to out-performance. Where this results in residual financial risks for investors, this should be taken into account as part of the assessment of the appropriate cost of capital and whether the company is financeable.

76. Other than in a very limited number of cases, we generally have not identified a need to intervene on Bespoke PCs or their associated ODIs. Our analysis therefore focuses on Common PCs.

Common PCs

77. We focused our assessment on the Common PCs and the related ODIs and conclude that:

    a. the PC levels for the three common performance measures set at the forecast upper quartile level are appropriate. These cover water supply interruptions, pollution incidents and internal sewer flooding. It is normal regulatory practice to make assessments using comparative regulation, and upper quartile is a common measure used when promoting improvements in efficiency;

    b. we make some adjustments to the ODI rates, caps and collars, and deadbands for the Common PCs. For example, for the PCs relating to unplanned outages and mains repairs we introduce deadbands which would mitigate the risk of penalties that might arise in respect of these PCs due to factors outside the companies' control;

    c. we welcome the Common PC linked to vulnerable customers that encourages companies to identify those customers most likely to need additional support. A thorough and up-to-date Priority Services Register may also prompt companies to identify further innovations that will allow the sector better to help vulnerable customers; and

    d. we have considered the leakage PC separately due to the interaction of the funding and outcome incentives in relation to leakage and because of the attention it has been given in the SPS and in Ofwat's FD.

Leakage

78. Each of the Disputing Companies has a PC which requires them to achieve a step change in the level of leakage reduction compared to previous periods. We decide to retain these PCs at the level set by Ofwat.

79. However, we decide that some of the Disputing Companies may require an additional allowance to achieve the required level of performance. In particular:

    a. We have concluded that there is a link between maintaining higher performance on leakage and costs such that the base cost model we used will not adequately compensate all companies that are maintaining performance above the upper quartile. This could justify additional allowances for Anglian and Bristol, which are two of the highest performing companies in the sector. We decide to adjust the base cost allowance for Anglian, according to its stated base expenditure requirements in proportion to its outperformance on leakage. While Bristol is also a higher performer on leakage, we conclude that the costs which it said it needs to maintain low levels of leakage are funded through the overall base cost allowances, once the base cost modelling has been updated to include the most recent data.

b. We conclude that the Disputing Companies which demonstrated that further enhancement allowances were needed to meet the ambitious leakage PCs should be allocated an allowance for the efficient costs of these enhancements. Ofwat only allowed these costs for the highest performing companies, including Anglian and Bristol. We did not agree with Ofwat's view that there was evidence that the Disputing Companies which were not high performers might have profited in the past by underperforming their leakage targets or by obtaining excessively generous funding for those targets. We therefore provide allowances for Yorkshire as well as for Anglian and Bristol but conclude Northumbrian does not need additional funding to meet its leakage target.

80. We have also considered the ODI rates relating to the leakage PC and we reject the use of enhanced ODI rates to reward substantial outperformance in this area. As explained above, we conclude that leakage improvements will require additional funding and so will impose costs on customers. In the circumstances, and in the absence of evidence for the cost-benefit trade off of further leakage reductions, we do not consider it would be appropriate to use Enhanced ODIs to shift the frontier in this area. We also make adjustments to increase the companies' penalty rates for underperformance ODIs, as we conclude that this would make the calibration of the ODIs more consistent with our determinations on enhancement costs.

Overall Changes to PC and ODIs

81. The summary of changes we have made to PCs and ODIs in Ofwat's FD including leakage (excluding scheme-specific PCs) are set out in Table 5.

Table 5: Decisions on the revisions to the PC arrangements set at PR19

Category	*PC*	*Change compared to Ofwat's FD*
Common performance measures	**Water supply interruptions**	no change
	Pollution incidents	Anglian: increase collar to 41.6
	Internal sewer flooding	Yorkshire: increase collars in years 2,3,4 and 5
Reducing demand	**Leakage**	All four companies: remove enhanced ODI rates. For three companies: adjust funding and amend Tier 1 penalty rates
	Per capita consumption	Bristol: reduce ODI rates to £-0.03m and £0.025m
Statutory measures	**Compliance risk index**	Revert to Ofwat's DD deadband levels for all four companies
	Treatment works compliance	no change
Asset health measures	**Mains repairs**	Deadband of 10 for all four companies
	Unplanned outage	Deadband of 1.2 x PCL for all four companies
	Sewer collapses	no change
Vulnerability measures	**Priority services register**	no change
Bespoke ODIs	**Low pressure**	Yorkshire: remove outperformance incentive
	Water quality contacts	no change
	Bathing water quality	no change
	Visible leaks	Northumbrian: clarify definition to exclude customer-side leaks
Other	**Overall reward cap**	no change

Source: CMA analysis

Cost of Capital

Weighted Average Cost of Capital (WACC)

82. The cost of capital is an input to the calculation of the companies' allowed revenue and is used to calculate the return that the companies need to earn to remunerate their investors within the price control.

83. Ofwat and the Disputing Companies had very different views on the right level of the cost of capital. As a result, the assumption on allowed profit was a large source of difference between them. Ofwat chose a 2.96% appointee level cost of capital allowance, significantly below the cost of capital suggested by the Disputing Companies, which are set out in Table 6.

Table 6: Parties positions on the appointee WACC

Inflation adjusted CPIH-real point estimate or midpoint of range	*Anglian*	*Bristol (industry level)*	*Bristol (inc.CSA)*	*Northumbrian*	*Yorkshire*	*Ofwat PR19*
Appointee WACC	3.62%	3.32%	4.04%	3.54%	3.78%	2.96%

Source: Anglian SoC, 1221 (based on midpoint of an RPI-real range of 2.5% to 2.9%), Bristol SoC, para 150 (industry estimate based on nominal point estimate of 5.35%, Bristol SoC, para 24 (inc SCA estimate based on a nominal point estimate of 6.08%), Northumbrian estimated figure relates to KPMG expert report for Northumbrian, section 8.1 and an RPI-real range of 2.49% to 2.75%), Yorkshire estimate is based on KPMG's metrics other than Yorkshire's specific requests on cost and proportion of debt.
Notes:
1. The companies did not use the same WACC submissions to the CMA as were used in the business plans, and in some cases did not provide a single point estimate for the WACC in their submissions to the CMA.
2. Where no overall point estimate or range was explicitly presented, we have estimated the company's view from either component metrics or other sources such as commissioned expert analysis. This table should be read as indicative only.
3. The appointee WACC is the term used in Ofwat's determination for the WACC allowance for the relevant water or water and sewerage companies considered within our price control determination.

84. There are two components of the WACC: the cost of equity and the cost of debt. We have used the Capital Asset Pricing Model (CAPM) to determine the cost of equity. The CAPM is an established methodology with well-understood theoretical foundations and which makes use of observable market data as far as possible. The CAPM is used by all UK regulators when calculating the cost of capital, and was the framework used in Ofwat's FD. We perform our own assessment of each of the parameters of this model, using up-to-date market data.

85. The main components of the cost of equity on which we decide are (in inflation adjusted CPIH-real terms):

   a. The total market return (TMR) (6.2% to 7.5%): To calculate the TMR, we place the most weight on historical ex-post returns (from 1900 to the present day), as well as on the historic ex-ante approach when selecting our range. We place less weight on the forward-looking evidence;

   b. The Risk-Free Rate (RFR) (-1.6% to -1.0%): We calculate an RFR by placing weight on both long-tenor index-linked gilts and AAA-rated non-government bonds (the highest quality commercial debt) and taking into account up-to-date market data;

   c. The equity beta (0.69 to 0.74): We calculate an equity beta based on a range of approaches of analysing the observable market data of WASC comparators, including a potential debt beta.

86. Based on the above, we calculate a range for the cost of equity over the period of the price control of 3.76% to 5.21%. We pick a point estimate 0.25% above the mid-point of this range. Our judgement of the point estimate of the cost of equity is based on the following considerations:

   a. promoting investment, and specifically addressing the risk of an exit of capital from the sector if the cost of capital were set too low;

   b. the asymmetry of risk in the package of ODIs;

   c. the scale of parameter uncertainty in estimating the cost of equity, particularly in the context of a sharp decline in equity returns since PR14; and

   d. cross-checks, including the need for the WACC to be sufficiently high to support financeability, which, for the reasons described at paragraph 7.j, we conclude is a more appropriate mechanism than Ofwat's decision to increase bills by advancing cash-flows from future periods.

87. We also consider other cross-checks against market data, although we conclude that these were insufficiently robust to change the choice of point estimate which we assessed based on the factors above.

88. We set an allowance for the total cost of debt at 2.18% in CPIH-real terms, marginally higher than Ofwat's 2.14%. We reach this figure by considering the costs of debt already incurred by the industry (embedded debt), the new debt costs that companies will face during the price control, the appropriate ratio of new and embedded debt and the costs of fees in relation to issuance and liquidity costs.

89. Evidence submitted by the Main Parties following Provisional Findings and our subsequent consultation on the cost of debt, as well as our own analysis, has allowed us to base our cost of embedded debt allowance on actual costs. In this process, we have made suitable adjustments to account for unusual levels of cash (as a result of COVID-19) and floating rate debt, and have considered these costs in relation to the notional structure used throughout this determination. We have then crossed checked our estimates against the iBoxx A/BBB benchmark over 15- and 20-year trailing averages. In conducting this extensive exercise in analysis and cross-checking, we are able to set an allowance for the cost of embedded debt that ensures that customers do not pay any more than is reasonably required to allow us to secure that water companies can finance the proper carrying out of their statutory functions.

90. In relation to new debt costs, we set an allowance relative to an iBoxx A/BBB 10+ benchmark, measured over the first 6-months of the price control. Unlike Ofwat, we consider there to be insufficient evidence to apply an outperformance wedge in order to reduce this allowance. However, our allowance of 0.19% (in CPIH terms) is lower than Ofwat's 0.53% on the basis of lower market yields at the time of measurement.

91. We agree with the use of a true-up mechanism for the cost of new debt in the next price control process and would expect this to be conducted on a like-for-like basis (with no performance wedge applied when calculating the true-up).

92. We apply a ratio of 17% new debt to 83% embedded debt in our calculations, slightly lower than the 20% of new debt used by Ofwat. We set the issuance and liquidity cost allowance at 0.1%, in line with Ofwat.

93. We also decide on levels for related metrics, particularly inflation (CPIH of 2%, with a 0.9% RPI-CPI wedge) and notional gearing (60%).

94. We consider our cost of capital allowance achieves the right balance for customers, who benefit not only from lower bills but also from continued investment in the water and sewerage networks.

95. Ofwat's FD included a 0.04% reduction in WACC in order to avoid water companies receiving compensation for systematic risks that were already covered by the margin in the retail price control. Our own assessment suggests that the potential for overcompensation is higher than initially calculated by Ofwat, but that this should be incorporated as a reduction in each Disputing Companies' allowed revenues rather than as an adjustment to the cost of capital.

Table 7: CMA's WACC decisions in Nominal, CPIH-real and RPI-real terms

WACC Metrics	*Nominal*	*CPIH-Real*	*RPI-Real*
TMR	8.94%	6.81%	5.85%
RFR	0.63%	-1.34%	-2.22%
ERP	8.31%	8.15%	8.07%
Unlevered beta	0.29	0.29	0.29
Debt beta	0.075	0.075	0.075
Equity beta	0.71	0.71	0.71
Cost of new debt	2.19%	0.19%	-0.70%
Cost of embedded debt	4.52%	2.47%	1.56%
Proportion of new debt	17%	17%	17%
Issuance and Liquidity costs	0.10%	0.10%	0.10%
Impact of picking a point estimate above the midpoint	0.25%	0.25%	0.25%
Pre-tax cost of debt	**4.22%**	**2.18%**	**1.27%**
Post-tax cost of equity	**6.82%**	**4.73%**	**3.79%**
Notional Gearing	60%	60%	60%
Appointee Allowed Return on Capital (Vanilla)	**5.26%**	**3.20%**	**2.28%**
Retail margin adjustment	0.08%	0.08%	0.08%
Wholesale Allowed Return on Capital (Vanilla)	**5.18%**	**3.12%**	**2.20%**

Source: CMA analysis and Ofwat PR19 FD

Bristol Company Specific Adjustment

96. Ofwat has made specific adjustments within some water-only companies' cost of capital to reflect structurally higher costs faced by smaller companies within the industry. Bristol claimed a Company Specific Adjustment (CSA) as part of the redetermination, in the form of an uplift to the cost of debt allowance and the cost of equity allowance.

97. Ofwat's FD rejected Bristol's claim for a CSA uplift to the cost of debt allowance on the basis that customers did not benefit sufficiently from being served by Bristol to compensate for the increased costs of financing a small company.

98. We decide to award Bristol an uplift in its embedded debt allowance of 0.30% reflecting the higher historical financing costs of a small company relative to our cost of embedded debt allowance which is based on the actual costs of the larger companies in the sector. In doing so, we are conscious of the importance of regulatory consistency in this area and the fact that the CMA has previously rejected the application of a customer benefits test. We have not applied a customer benefits test to Bristol's costs of capital allowance and it remains our view that the key consideration in this regard is the return on

capital that allows a notional company of the size of the appointee to finance its activities.

99. We reject Bristol's request for an uplift to its cost of new debt, considering recent evidence that indicates that Bristol can now access debt markets in a flexible and competitive manner. However, we award a 0.05% increase to Bristol's issuance and liquidity cost allowance, reflecting that average fees may be larger as a result of smaller companies having fewer interactions with financial markets.

100. We reject Bristol's request for a cost of equity uplift, taking into account the latest evidence on the market pricing of debt and equity for small companies, as well as taking into consideration our overall cost of equity allowance and our assessment of Bristol's financeability

Gearing Outperformance Sharing Mechanism

101. Ofwat introduced a GOSM for the first time in PR19. Ofwat stated that equity investors benefit from higher equity returns that are associated with their increased risk, but there is no substantive benefit passed to customers. In addition, Ofwat stated where companies adopt high levels of gearing, they may reduce financial resilience and transfer some risk to customers and / or potentially taxpayers in the event that a company fails. To address this, Ofwat introduced a mechanism that it said would share the benefits of higher gearing with customers.

102. We consider that the GOSM as designed was ineffective either as a benefit-sharing mechanism or as a tool to improve financial resilience. First, we consider that Ofwat had not adequately evidenced the existence of the benefits from high gearing that it said would be available to share. Second, to the extent that high gearing reduces financial resilience, the GOSM works only to encourage a reduction in gearing rather than to require a reduction in gearing. Moreover, we note that there are already multiple licence conditions which, together with a large and stable asset base, provide protection to consumers from excessive gearing. While we do not rule out that Ofwat may need to intervene at some time in the sector to reinforce its financial resilience and that this may or may not involve some constraint on gearing, for the purposes of this price control, we were not presented with evidence that an intervention on gearing is currently required in respect of the Disputing Companies or that the GOSM is the appropriate mechanism for such an intervention.

Financeability

103. We are required to secure that companies can continue to finance the proper performance of their functions. We therefore completed an in-the-round assessment of the financeability of the Disputing Companies, including a financial ratio analysis similar to that which would be undertaken by the credit rating agencies. We find that the Disputing Companies should be able to achieve strong investment-grade credit ratings based on the notional capital structure, and this is consistent with our assumptions in the WACC for the cost of debt. We also find that under a reasonable downside scenario, the Disputing Companies' ratios are worse than in the baseline model but still investment-grade. We also consider the overall risk and return package and take note that, compared to Ofwat's FD, our determinations have resulted in lower risk exposure in a number of areas.

104. We consider that companies facing a financeability constraint, such as to address a downside scenario, may adopt a range of mitigating actions to address impact, such as absorbing headroom in credit ratios or increasing the contribution of equity either by foregoing dividends or injecting fresh capital. We conclude that this supports the view that our determination for each of the Disputing Companies is financeable.

105. Companies earn revenues through the PAYG share of allowed totex, which is comparable to operating expenditure or current expenses, and RCV run-off (a form of depreciation of regulated assets). When developing their business plans, companies proposed PAYG rates and RCV run-off rates for each of the four price controls (water network, wastewater network, bioresources and water resources). The use of these measures is intended to mirror the standard accounting concepts of operating expenditure, recovered from current customers, and capital expenditure, recovered over the life of the assets. The use of the regulatory measures of PAYG and RCV run-off as an alternative to accounting measures should allow the companies and Ofwat to set the recovery of costs over a suitable period and to address any timing issues.

106. We conclude that our determinations would be financeable on the basis of these measures being set at a rate which is consistent with the underlying totex in this period. In particular, as noted above, we consider that our determinations would be financeable without Ofwat's adjustment to bring forward more revenues to this period than implied by the Disputing Companies' business plans. We therefore decide that PAYG rates should be set at our best estimate of the 'natural rate'. For three of the Disputing Companies, this is the same as set in Ofwat's FD. For Anglian, we accept its

submission that the decision that both we and Ofwat made to allow less capital expenditure than in its business plan implied a higher 'natural rate' than it had requested and had been allowed by Ofwat.

Disputing Companies' Costs of the Determination

107. We have to decide to what extent it is reasonable to take account in our determinations the costs incurred by the Disputing Companies in connection with our redeterminations. In so doing, we have had regard to the extent to which our determinations support the Disputing Companies' claims. We have also taken account of the CMA's costs, which the Disputing Companies are required to pay as a CMA fee set by Ofwat. Our overall, in the round judgement is that it is reasonable to take into account 25% of the external costs incurred by (or, in the case of the CMA's costs attributed to) Anglian, Northumbrian and Yorkshire. We have allowed 50% of Bristol's costs, reflecting the narrower range of issues it raised and that we awarded it a CSA. We therefore decide to include the following costs of the determinations as allowances: Anglian £2.1 million; Bristol £2.0 million; Northumbrian £1.8 million; and Yorkshire £2.3 million.

Conclusion

108. For the purposes of these determinations, we calculate a revenue allowance for each of the Disputing Companies for AMP7, which is reflected in Table 8.

Table 8: Calculation of wholesale allowed revenue for each Disputing Company

				£m*
	Anglian	*Bristol*	*Northumbrian*	*Yorkshire*
PAYG	2,722	325	1,490	2,511
RCV Run-off	1,896	128	1,022	1,327
Return on Capital (incl RMA)	1,082	75	561	943
Reconciliation	5	-5	-1	83
Tax	5	15	81	11
Grants and contributions	241	16	112	92
Deduct non-Price control income	-64	-10	-50	-18
Innovation competition	21	2	12	18
Revenue reprofiling	8	1	3	4
Wholesale revenue	**5,916**	**547**	**3,230**	**4,971**
Change vs Ofwat FD (£m)	*+208*	*+45*	*+115*	*+148*
Change vs Ofwat FD (%)	*+3.5%*	*+8.2%*	*+3.7%*	*+3.0%*

Source: CMA analysis
* Footnote: £ million over the whole 2020-25 price control in 2017-18 CPIH deflated prices

109. Having determined the revenue allowances over the whole AMP, we have profiled it between individual years in order to provide customers with a better view of the potential impact, and to allow for an annual calculation of the price control. In doing so, we have chosen to implement a consistent annual

increase in nominal bills over the course of the remaining three years in the AMP. This defers some of the bill increases until later years, which is likely to be particularly beneficial to customers affected by the COVID-19 pandemic, whilst also avoiding any specific 'spike' in customer bills in a single year.

110. We emphasise that while we have looked at individual components in detail, and necessarily made decisions on each of these, we have also considered any cross-cutting or interconnected issues when making such decisions. In particular, the inter-relationship between cost and service, as well as risk, return and financeability have influenced our decisions in each of the major areas of the determinations (totex, outcomes and WACC). These are determinations of a whole package for each Disputing Company ‘in the round’, and we consider that these determinations secure compliance with all our duties and ensure that customers pay the lowest charge consistent with the companies being able to finance their operations and invest appropriately for the future.