July 2015

Trust in water

Ofwat comments on Pennon Plc's initial submission to the Competition and Markets Authority (CMA)

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About this document

This paper sets out Ofwat's views on Pennon's initial submission to the CMA which sets out its assessment of whether this merger has prejudiced, or may be expected to prejudice Ofwat's ability to make comparisons between water enterprises in carrying out our functions.

Contents

1. Summary

Our initial submission[1] to the CMA's investigation of the merger of South West Water and Bournemouth Water was submitted to the CMA on 22 June 2015. It set out our assessment of prejudice and benefits arising from the merger, and our view of possible remedies. Pennon also provided its initial submission to the CMA on 22 June[2].

This document sets out our comments on Pennon's submission. It should be read alongside the submissions referenced above. It assumes the reader is familiar with the submissions and the approaches taken by us and Pennon to assessing the impact of the loss of Bournemouth Water as an independent comparator.

Overall, we agree with the general approach Pennon has taken to quantifying the impact on our ability to make comparisons between water enterprises. Both Pennon and we have used, and adapted, the approach taken at the 2014 price review (PR14) (itself adapted from the approaches taken by the Competition Commission in previous merger investigations) to assess the claims of the water only companies for an uplift to the cost of capital.

However, we disagree with a number of the assumptions that underpin the analysis carried out by Oxera on Pennon's behalf. The assumptions lead Pennon to conclude overall that this merger will not give rise to any prejudice in Ofwat's ability to make effective comparisons for the purposes of regulating water companies. Overall, our view remains that this merger will introduce detriment to our ability to make comparisons between different water enterprises and so prejudices our ability to make comparisons between water enterprises.

1.1. Overall approach to assessing the merger impacts

We agree with Pennon that a quantitative assessment should be made of those areas where comparisons were made to set cost benchmarks at PR14 and that this should take account of how we will make use of comparisons in the future (i.e. wholesale cost assessment and household retail cost to serve[3]). While we agree

[1] "Ofwat's initial submission to the Competition and Markets Authority following the acquisition of Bournemouth Water Investments limited by Pennon Group plc.
[2] Unless otherwise stated, paragraph references in this document refer to the paragraphs of Pennon's initial submission to the CMA – "Initial submission to the Competition and Markets Authority from Pennon Group Plc, June 2015".
[3] We have not attempted to quantify the loss of a comparator for the non-household retail price control. Comparators will be useful in this area for setting the non-household price controls in 2017

with Pennon that impacts on retail household service delivery can be quantified (through the Service Incentive Mechanism (SIM)), we also consider it important to attempt to quantify the impact of the loss of a comparator for the outcome delivery incentives (ODIs), which was an area where comparisons were drawn to determine performance benchmarks at PR14.

Both we and Pennon make assumptions about the use of comparisons using static and forward looking approaches which draw on the techniques used by the Competition Commission in previous merger investigations. The results of the forward looking approaches are dependent on the assumptions made about the future form of regulation and assumptions about how the sector will respond to the incentives that underpin the regime. The benchmarks we may use in the future will take account of comparisons we make within the sector, but they will also be influenced, and potentially set, by external benchmarks to ensure that companies that are at the frontier are incentivised to continue to deliver efficiences.

Projections about the future will invariably require a range of assumptions to be considered; and the analysis will be constrained by the underlying data. But where it is possible to attempt to carry out an assessment of the impacts of a merger using quantitative techniques (including for ODIs), then an assessment should be made.

We consider that the impacts should focus on shorter time periods in some areas than in past merger investigations. This is due to the changes that could arise in the future. Assumptions made in past investigations, that the structure of the sector would remain stable for the foreseeable future, may now be less valid. We focus on the impacts over shorter time periods than Pennon in some areas, such as retail, because we anticipate our approach to setting benchmarks will change in the future. We note, however, that the need for econometric modelling and comparative techniques for the natural monopoly elements of the value chain will remain important for the foreseeable future and so we agree with Pennon that impacts in this area should be considered over a longer time period.

Conclusions drawn from the range of assumptions that underpin the analysis need to be balanced and considered in the round. Bournemouth Water has been demonstrably within the upper quartile performance of all companies in our wholesale cost assessment, SIM and across the three outcome delivery incentives that were the subject of comparative assessments at PR14. In this context, Pennon's conclusion that the merger will not give rise to prejudice, and will produce net benefits to our comparative regime, is drawn on the basis of its future projections

will be potentially useful in the event of any margin squeeze investigations we might carry out in the future under the Competition Act 1998.

about relevant customer benefits and a set of assumptions about the future that we consider not appropriate. We set these issues out in the following sections.

1.2. Differences in the analysis carried out by Pennon and us

The quantitative analysis undertaken by Pennon and Oxera has been the subject of a constructive dialogue between us, Pennon and Oxera[4] in advance of their initial submission. We have provided comments to Pennon throughout the process, some of which were taken into account in Pennon's initial submission. This correspondence has been shared with the CMA.

We are surprised by the significant swing in Pennon's overall assessment of the impact of the loss of Bournemouth Water in the wholesale cost models compared to what was set out to us before Pennon's initial submission. This has swung from a detriment in the region of around £35 million to £36 million (30 year NPV), to a benefit in the range £1 million to £46 million. Oxera make two key assumptions which we do not support. Firstly, Oxera make use of 'transition' probabilities which we consider to be inappropriate as the probabilities are susceptible to multiple biases which we set out in section 2. Secondly, Oxera use efficiency rankings taken from business plans which we do not consider to be a reasonable basis for assessing the expectation of efficiency changes in the future.

In addition to our concerns on the wholesale cost benchmark, we summarise below the more material concerns we have with Pennon's analysis. We discuss these issues in further detail in sections 3 to 7 of this document.

- Pennon focusses its analysis on an upper quartile benchmark to assess retail impacts over 30 years. We consider the regulatory approach beyond 2025 is too uncertain to support an assessment over such a time period. In addition, Oxera's analysis appears to produce counterintuitive results in the short term (i.e. a detriment for the five years from PR19). We discuss these issues further in section 3.
- The assumption of no net detriment for setting benchmarks for outcome delivery incentives appears unreasonable, and potentially an extreme assumption given Bournemouth Water's historic good performance. We discuss these issues further in section 4.
- We agree that it is reasonable to conclude there will be detriment to customers arising from the loss of Bournemouth Water as an independent comparator for incentivising companies to deliver high levels of customer

[4] Pennon also note this in paragraph 4.2.

performance under the Service Incentive Mechanism. However, we have some concerns with the assessment undertaken, which lead us to conclude that Pennon understates the detriment. We discuss these issues further in section 5.

- We consider the conclusion drawn by Oxera on the impact on precision of our wholesale cost models (specifically that a gain arises from the loss of an independent comparator) is counterintuitive. We discuss this further in section 6.
- We welcome the approach Pennon has taken to assessing the qualitative impacts that arise from the loss of Bournemouth Water. However, Pennon's assessment is narrower than the approach we have adopted which seeks to consider the qualitative impacts as they apply to comparative regulation of the whole sector. We discuss these issues further in section 7.

In addition to the above, we set out our comments on the possible benefits that may arise from the merger in section 8. In that section, we reference a number of assertions made by Pennon that raise questions in the absence of further evidence. We set out that some of the proposed cost savings, service improvements or innovations could arise absent the merger.

We welcome Pennon's commitment to return the small company uplift to customers from 2016-17, but we note (at £0.23 million per annum) this is relatively low value compared with the cost savings proposed. As set out in our initial submission, to ensure customers share in the benefits of the merger, we would expect to see clear commitments and an implementation plan that would allow management to be held to account for delivery of the stated synergy benefits. Commitments to cost savings that are accompanied by an adjustment to the wholesale cost baseline set at PR14 and that are capable of being trued up at the next price review, provide the strongest incentive on management to deliver the synergy benefits set out. It would be reasonable to assume that any such adjustment to the wholesale cost baseline should allow both customers and shareholders to share in the proposed benefits.

1.3. Areas of Pennon's initial submission that we welcome or support

Notwithstanding the comments in the preceding section, there are statements in Pennon's initial submission that we welcome or which we support. These include:

- Pennon's comment that it is supportive of the aim to move towards new arrangements to enable retail markets to develop and that support upstream market reform[5];
- the commitment to remove the small company premium from 2016-17[6];
- Pennon's innovative approach to engaging with customers to consider their views on this merger;
- retention of the tariff differential between customers in the South West and Bournemouth Water regions;
- further consideration of the WaterShare mechanism to profile revenues to Bournemouth Water customers which may have the effect of smoothing customer bills;
- the commitment that no customer of South West Water or Bournemouth Water will be worse off from the merger and that customer bills and service levels committed in the final determination will be delivered as a minimum[7];
- the commitment to consider extending the open and transparent principles of South West Water's WaterShare mechanism with the customers of Bournemouth Water.

While we welcome Pennon's comments as set out above, Pennon has not yet set out precisely how or when all of these will all be delivered. We look to Pennon to set out these details during this merger investigation to enable us to provide our final representations to the CMA to enable it to make its final conclusions.

1.4. Next steps

In the time available to prepare this submission, we have not been able to complete our review of Oxera's assessment of precision. We will provide further comment to the CMA on precision as flagged in Section 6 ahead of the roundtable modelling session that is scheduled on 28 July. We also consider it will be beneficial to discuss further at the roundtable the assumptions that underpin Oxera's assessment of wholesale costs, as not all of the assumptions that underpin Oxera's assessment have been set out, and some are hidden within the detail of the macros that underpin the modelling spreadsheets.

1.5. Structure of this rest of this document

The rest of this document is structured as follows.

[5] See for example paragraphs 7.40 to 7.46
[6] Paragraph 7.5.
[7] Paragraph 3.23

- Our comments on benchmarks are set out in the following sections:
  - Section 2 – wholesale cost benchmark
  - Section 3 – retail benchmark
  - Section 4 – outcome delivery incentive benchmarks
  - Section 5 – service incentive mechanism benchmarks
- Section 6 sets out our comments on Pennon's initial submission regarding the loss of precision to our wholesale econometric model
- In section 7 we comment on Pennon's approach to assessing the qualitative impacts arising from the loss of a comparator
- Section 8 sets out our comments on the benefits Pennon state will arise from the merger. It also sets out comments made by Pennon that we do not consider to be relevant to the CMA's considerations and comments made by Pennon that we consider to be unsupported.

2. Wholesale benchmark

2.1. Background

In our initial submission, we quantified the effect of the loss of Bournemouth Water as an independent comparator. We set out that Bournemouth Water was within the upper quartile (ranked first) in our historical efficiencies and outside the upper quartile (ranked ninth) if using business plan efficiencies. We used a static and a dynamic approach (based on a changes matrix) to quantify the impact of the loss of Bournemouth Water as an independent comparator using probabilities derived from historic data. Our assessment provided detriment of £112m using a static approach. Using the dynamic approach, we assessed detriment to be £1 million (based on business plan forecast ranks) and £43 million (based on outturn ranks), assessed over 30 years.

Pennon sets out its assessment of the impact of the loss of Bournemouth Water on our use of comparators for setting a wholesale benchmark in section 10 of its initial submission, with supporting analysis from Oxera in Appendix C and an Excel simulation model. No models are provided for their static and deterministic calculations.

Oxera estimates the impact using static, dynamic (which they call deterministic) and simulated (which they call dynamic) approaches. Oxera's dynamic approach resembles our dynamic approach, while the simulated approach simulates the future 35 years using 10,000 replications to get the expected industry impact. Oxera ran a series of sensitivities which evaluated the impacts of the probability matrices that are used, the impact of synergies, and the impact of differing assumptions about convergence.

Pennon and Oxera build on our PR14 small company uplift work. All of the analysis is therefore based on the difference between the factual (the industry with the merged company) and the counterfactual (industry as it is).

Pennon conclude there is a net benefit arising from the merger of South West Water and Bournemouth Water across all three approaches (we note there are sensitivities where detriment arises). Pennon conclude that the merger is likely to result in a better comparator, benefiting the comparative regime, in terms of setting a more stringent efficiency challenge on the rest of the industry.

Table 1 Pennon/Oxera estimated impact from the merger

Assumption	Impact (£m 30-year NPV)
Static	£60m benefit (PR14 only)
Deterministic	£23m benefit (average of £46m benefit and £1m detriment)
Dynamic	£30m benefit

2.2. Ofwat comment on the approach taken by Pennon

We summarise in the following sections our key comments on the approach taken by Pennon which are:

- we do not consider Oxera's use of rankings from PR14 business plans to be the most appropriate driver of the expected loss;
- Oxera's use of transition probabilities under its simulation approach materially overstates the impact; and
- the impact of synergies on the sector benchmark appears overstated and driven by rank simulation.

We also comment on a number of other issues raised by Pennon in its initial submission.

2.2.1. We do not consider Oxera's use of rankings from PR14 business plans to be the most appropriate driver of the expected loss

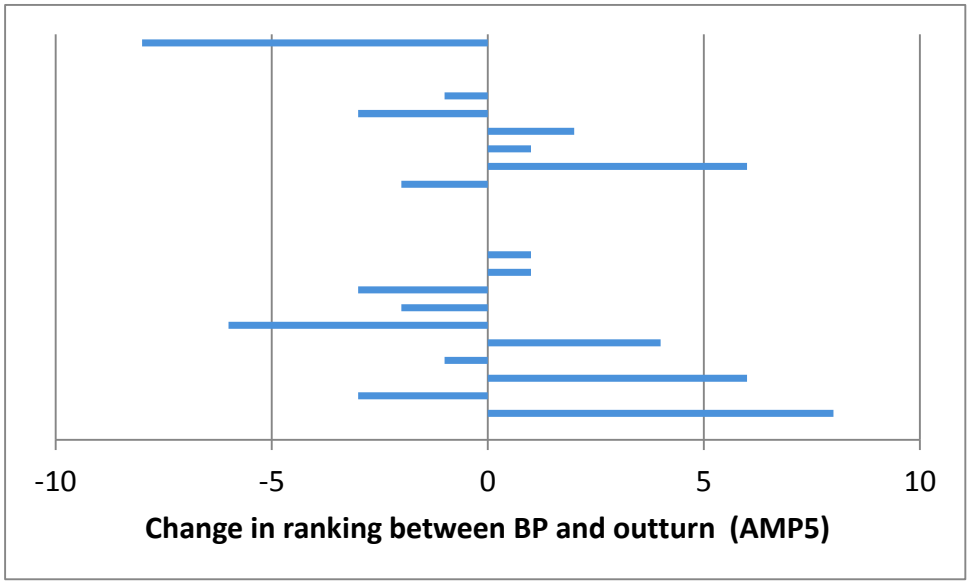
The assumption about the starting ranks gives rise to a significant difference between the analysis carried out by Oxera and us. Oxera focus solely on forecast (business plan) ranks, which are not reflective of outturn ranks.

Business plan rankings rely on forecast data, rather than outturn. Outturn costs often differ from companies' forecasts, which lead to movements in efficiencies and ranks. For example, the figure below illustrates the movements in company ranks from the business plan (PR09 Final Determination capex and opex) to actuals[8]. The negative numbers indicate that the company has improved in rank, while the positives show a

[8] Actuals comprise actual company expenditure in the financial years 2010-11 to 2013-14 and company projections for 2014-15 that were used for price setting purposes. 2014-15 actuals will be available only when the regulatory accounts for 2014-15 are submitted.

deterioration in rank. There are few companies with no change and a substantial number of large jumps (e.g. including some companies jumping 8 ranks).

Figure 1 Change in company rankings between business plans and outturn costs for AMP5 (2010-15)



Therefore, we consider that the business plan rankings are not always indicative of actual efficiencies delivered, this is because companies will be incentivised to outperform the business plan assumptions and companies actual performance against their business plan will vary from company to company.

Using the business plan ranks automatically means that Bournemouth Water starts off as the ninth most efficient company, while the historic analysis shows it to be at the efficiency frontier (first).

Oxera's approach suggests therefore that losing Bournemouth Water would mean the loss of an inefficient company which produces a beneficial effect on the future upper quartile efficiency value. The opposite would be true if using outturn ranks.

2.2.2. Oxera's use of transition probabilities under the simulation approach materially overstates the impact

Oxera's impact of £30m is assessed as the average of the transition approach (£50m) and changes approach (£11m), with synergies. The difference between the two approaches is the result of differences in the assumed probability matrices. We

do not agree with using the transition approach as it is susceptible to multiple biases as set out below.

- The transitions approach requires a large amount of data to provide robust rankings. The matrix has been constructed by combining a two year ranking with a three year change in ranking. It assumes that the two are independent, which is not necessarily valid.[9]
- The limited dataset means that some plausible changes in rank are not possible (0% probability). For example, Oxera had to determine some probabilities to allow the bottom ranked company to change position. We do not consider that this provides a robust way of estimating future changes in rank. In addition it appears that the transitions matrix as used by Oxera gives a very high probability of a high ranking company retaining its position, e.g. number 1 ranked company has an 86% chance of remaining in the upper quartile and an upper quartile company has a 71% chance.
- The data uses forecast totex ranks. We do not consider that forecast rankings provide an accurate reflection of actual outturn efficiency performance (as illustrated in the preceding section). This is also because Oxera have relied on business plan information, some of which we did not consider to be representative of efficient expenditure at PR14. For example, Bristol Water stated that it would not take forward Cheddar II as it was not in the final determinations baseline and chose its menu position on this basis.
- Oxera's approach to smoothing totex rankings over five years raises particular concerns when the actual and forecast rankings are smoothed as the approach combines rankings that are calculated in different ways.

Taking account of the points above, we consider that Oxera's assumptions and use of transition probabilities materially overestimates the benefits from the merger to consumers.

2.2.3. The impact of synergies on the sector benchmark appears overstated and driven by rank simulation

The main driver of the benefit in Oxera's simulation model is the synergy savings. Removing the synergy savings reduces the average benefit quoted under the dynamic approach from £30 million to a detriment of £8 million.

[9] See paragraph 45, Appendix F, South Staffordshire plc / Cambridge Water plc merger inquiry (CC)

Synergy savings impact on the overall assessment based on the probability of the merged company being ranked as the new upper quartile benchmark (i.e. fifth overall in an industry of 17). To do this, Oxera run a simulator with 10,000 replications in order to generate the ranks. The replications use efficiency anchors and seeds. It is unclear from the model where and how the transition probabilities are taken into account in conjunction with the pre-set anchors and seeds to generate the simulations.

The result is that in AMP7, 17% of the replications[10] lead to the merged company being fifth or getting to fifth place once synergies are applied. Given that the merged company would be first at the outset (based on both historical and business plan ranks), it seems unlikely that it would deteriorate to fifth rank given the proposed synergy savings. This probability is materially higher than the probability of 9%[11] determined from our changes matrix and higher than the transition probability (0%) calculated by Oxera.

The benefits from these 17% of replications are the ones driving the results as the remainder of the replications (83%) have synergy impacts of £0[12]; and it is the average of these impacts across the 10,000 replications that drives the benefit assessed by Oxera. We have not, at this stage, had time to consider the detail of the model but it seems that this input is driven by the assumptions made on efficiency anchors, seeding, and possibly the probability matrices; we consider Pennon should set out for discussion at the roundtable on 28 July why the assumptions made by Oxera are the most valid assumptions to be made.

Leaving aside the statistical issues, Pennon has not provided a clear commitment to deliver the synergy savings it says will be delivered. In the absence of clear commitments that motivate management to deliver the stated synergy savings, we do not consider forecast synergies should be included within the assessment of wholesale cost benchmarks. Even if firm commitments were provided to reduce costs and therefore prices in the current price control period there is no reason that these reductions in relative costs would continue in future control periods, as the regulatory framework, coupled with the greater use of markets in some areas, will continue to incentivise other companies to improve their comparative performance. We discuss these issues further in section 8.

[10] The number of negative figures in column CO in the 'rawresults' tab over the total number of replications (10,000)
[11] See the "changes matrices 0%" tab of our "wholesale_benchmark changes approach" spreadsheet.
[12] These are the observations where the merged company is not 5th and therefore it does not make the upper quartile benchmark more stringent.

2.2.4. Detailed comments on the points raised by Pennon/Oxera

Pennon does not provide much detail on the static estimate. The impact is substantially different from ours and it largely relies on their use of PR14 ranks. The table below provides more detail. Oxera's dynamic approach is largely similar to our approach with a few key differences shown in the table below. Oxera calculates two estimates: one based on transition probabilities (£46m benefit) and another based on changes probabilities (£1m detriment). It then averages the two. Pennon's spreadsheets that accompanied the initial submission did not appear to include its calculations (called by Pennon 'deterministic'). We cannot comment therefore on the derivation of the numbers. To compare to our approach, Pennon's lower bound is comparable to our upper bound (£1m of detriment using changes matrix and business plan ranks).

The simulation analysis is based on Oxera's simulation model that makes some assumptions about future movements in efficiencies and ranks. The model is particularly large and the macro makes it less transparent. Given time constraints, our comments here are limited to a cursory review of the model.

2.2.5. Detailed comments on the points raised by Pennon and Oxera

Assumption	Oxera/Pennon	Ofwat
Static approach - impact over PR14 (£m NPV)	£60m benefit	£112m detriment
PR14 ranks in static approach	Oxera uses business plan ranks with Bournemouth being ninth. Therefore, loss of Bournemouth (ninth) in business plan rankings results in improvement of UQ by 0.4% in the static approach.	We disagree with relying on business plan ranks for PR14 as they never formed part of the UQ benchmark calculation used at PR14. Based on historical ranks the impact is a detriment of 0.65% because Bournemouth Water was the top company.
Capping and menu weightings	Oxera calculate the impact by reference to basic cost threshold that is determined by the econometric model, but after application of the totex cap to Thames Water	We have not calculated the industry impact this way. We consider it is more appropriate to use the basic cost threshold before application of the totex cap

Assumption	Oxera/Pennon	Ofwat
	and after application of the menu weights.	and menu weighting because it is the historic data that is used to determine the efficiency benchmark. The totex cap and menu adjustments are functions of the business plan which is not used to determine the efficiency benchmark. Our basic cost threshold (£17 billion) is therefore lower than that used by Oxera (£19 billion). We consider our estimate better reflects the impact resulting from the change in models.
Forward looking approach - impact over 30 years (£m NPV)	**Dynamic** £26m benefit to £1m detriment **Simulation** £50m to £11m benefit (average £30m benefit)	**Dynamic** £1m to £43m detriment
Changes probabilities	Oxera uses a changes matrix to estimate probabilities of being in upper quartile in the next 30 years.	We agree with the use of the changes probabilities.
Transition probabilities	Oxera also uses transition probabilities of being in UQ in the next 30 years, which is based on data from 2013 to 2020 (a combination of historical and forecast).	We disagree with the use of transition probabilities. They are less robust (as discussed in section 2.2.2), we consider they are implausibly high and use forecast data (less reliable than outturn - see row “Starting ranks in forward looking approaches” below). Transition probabilities result in much higher benefits (difference of £46m

Assumption	Oxera/Pennon	Ofwat
		in the dynamic approach) and therefore Oxera's final results are largely driven by transition probabilities.
Starting ranks in forward-looking approaches	Oxera uses business plan ranks with Bournemouth ranking 9th.	We disagree that the analysis should rely solely on business plan ranks as companies will be incentivised to outperform the cost allowances. We place greater reliance on historical ranks (which are based on outturn data). In the historical rankings, Bournemouth is first and therefore the loss of Bournemouth Water as an independent comparator does not result in a benefit to the industry.
Ranking simulation and synergies	In 17% of simulations, the merged company is 5th or gets to 5th place with synergies.	This assumption seems implausible if the merged company would start as first and especially if synergies further improve performance. This largely drives the expected benefit of the merger (without synergies there is £8 million detriment – based on the average of the transition and changes approaches). In the absence of commitments to deliver the stated synergy savings, the validity of the possible synergy savings should be considered carefully.
Convergence	Starting from 2025, Oxera present a scenario which sets our convergence in	While this is presented as a sensitivity and so not material to Pennon's overall

Assumption	Oxera/Pennon	Ofwat
	efficiency scores over time. Oxera assume convergence away from the frontier and the worst performer with constant gaps in the efficiency rankings.	conclusions, we note that no evidence or rationale has been provided to support the convergence assumptions. Any analysis which assumes convergence is away from the frontier is unrealistic.
Efficiency score anchored to PR14 scores	Oxera sets ranges for the efficiency scores at each rank equal to the mid-point to the adjacent ranks.	This feeds into the ranking simulation, discussed above. It is unclear whether the anchors set up present realistic scenarios for the future efficiency scores. We have indicated previously that efficiency scores can vary at least to the levels shown in the historical models.
Expected value of losing a company	Oxera estimates the loss of an upper quartile company to lead to a detriment of £52 million and the loss of a non-upper quartile company to be a benefit of £17m before probabilities are applied.	It is unclear how these numbers are derived and how they affect the final results as the supporting spreadsheets have not been provided.

3. Retail benchmark

3.1. Background

In our initial submission, we quantified the effect of the loss of Bournemouth Water as an independent comparator. We set out that Bournemouth Water was less efficient than the average in terms of the cost to serve assessment for both measured and unmeasured calculations at PR14. South West Water was less efficient than the average for the measured calculation, but more efficient than the average for the unmeasured cost to serve.

We used static and forward looking approaches to quantify the impact of the loss of Bournemouth Water as an independent comparator. We made assumptions about the degree of convergence on the cost to serve and used a changes matrix when considering the forward looking approach. We made different assumptions where the benchmark might be set in the future in reaching our conclusions on the forward looking approach.

We concluded that the merger results in a benefit to customers in respect of the retail benchmark. The calculations were driven mainly by the impacts on the unmeasured cost to serve where both Bournemouth Water and South West Water are currently less efficient than the average. Our assessment indicated a benefit of £5 million if bad debt adjustments are not re-estimated (or £21 million including re-estimation of bad debt) using the static approach and £0 million to £6 million for the forward looking approach using different assumptions about the benchmark to 2025.

Pennon sets out its assessment of the impact of the loss of Bournemouth Water on our use of comparators for setting the retail benchmark in section 11 of its initial submission, with supporting analysis from Oxera in Appendix D.

Pennon presents the impact using static and deterministic (or “probabilistic”) approaches. The static approach assesses the impact both with and without re-estimations of bad debt. The probabilistic approach was applied in conjunction with an upper quartile benchmark and an assumption about cost convergence over time. While Oxera present some other approaches, which including future impacts based on an average benchmark rather than an upper quartile benchmark, Pennon does not comment on these in its initial submission.

Overall, Pennon conclude there is a benefit, of £5 million if bad debt adjustments are not re-estimated (or £17 million including re-estimation of bad debt) using the static approach. Following the forward-looking approach, Pennon show a detriment of £9 million to 2025 and a benefit of £21 million over 30 years.

We set out our key points on Pennon's initial submission in the following section.

3.2. Ofwat comment on the approach taken by Pennon

We agree that given the relative position of both Bournemouth Water and South West Water there is unlikely to be detriment overall in setting the retail cost to serve benchmark. Where Oxera has assessed that benefits arise from the merger, we consider that the approach it has taken, particularly in relation to the time period over which the impacts have been assessed and the convergence assumptions lead these to be overstated.

We summarise in the following sections our key comments on the approach taken by Pennon which are:

- Impacts should be considered over a shorter time period than the 30 year assumption made by Oxera.
- Oxera's assessment of impacts until 2025 is counter-intuitive.
- Oxera's convergence assumptions may not reflect the level of convergence that is likely to occur.
- There are limitations with the changes matrix used by Oxera.

3.2.1. Impacts should be considered over a shorter time period than the 30 year assumption made by Oxera

Oxera assume the benefit arising under an average cost to serve or upper quartile benchmark will persist for 30 years, but do not set out the rationale for using 30 years as the basis for the calculation of impacts. Our assessment assumes benefits will persist only until 2025. This is because we expect that the relative impact of sector comparators on retail cost to serve is likely to fall in the future because the incentive will focus more towards the frontier and we expect the scope for catch up in performance will reduce[13]. We also consider that the separation of the retail controls will allow for greater use of benchmarking data from outside the sector in the future. Although we consider these changes will be gradual, we have assumed an upper

[13] For example, we set out in our methodology for PR14 that we expect to move to an efficient cost to serve in the future.

quartile benchmark will be appropriate only until 2025, whereas Oxera assume an upper quartile (or average cost) benchmark will continue for up to 30 years.

3.2.2. Oxera's assessment of impact until 2025 is counter-intuitive

Oxera's assessment of impacts until 2025 using an upper quartile benchmark states a detriment of £9 million[14]. This is inconsistent with statements made elsewhere in Pennon's submission that the merger results in a net benefit regardless of the assumptions made. We have not at this stage sought to fully understand the reasons for this in Oxera's modelling, but the conclusion that detriment arises to 2025 is counterintuitive[15].

3.2.3. Oxera's convergence assumptions may not reflect the level of convergence that is likely to occur

There is agreement between the parties that it is reasonable to assume a degree of convergence on retail cost to serve given the increased management focus following the introduction of separate price controls. However, the convergence assumptions made by Oxera assume 75% of the gap between the frontier company and the rest of the industry is closed within 20 years. This is consistent with the assumption set down in the impact assessment for PR14[16], but we consider this assumption may not reflect the level of convergence that may occur now that price limits for the retail price control have been set. This because PR14 provided us and companies with better information and knowledge of the differences between companies as a result of better accounting separation data. Having a separate retail control will allow the management of each company to focus on outperforming the PR14 retail price controls. Our assessment therefore assumes more stringent assumptions around the degree of convergence as the levels of catch up may be faster than assumed in our impact assessment. More stringent assumptions have the effect of reducing the benefit arising from the merger compared with the assumptions made by Oxera.

Oxera's analysis does however focus on the upper quartile as a more likely benchmark than the average cost to serve in the future. We agree that alternative benchmarks such as upper quartile may be appropriate in the medium term (i.e. to 2025), but that it may be more valid to assume more stringent targets beyond 2025.

[14] See the table that follows paragraph 8.34 of Pennon's initial submission. It is also the sum of cells C36 and D36 in the summary tab of Oxera's spreadsheet "Annex D Oxera retail average cost to serve_OxeraDeterministicAnalysisM Updated.xlsx"
[15] In addition, the figures in the table above paragraph 8.33 of Pennon's initial submission imply a detriment of £20 million over 30 years, rather than £21 million that is stated in Oxera's spreadsheets.
[16] Page 43, PwC (2013), Updated price limits impact assessment

We did not make assumptions of synergy savings in the modelling undertaken, because, as set out in section 4.3 of our initial submission, retail synergy savings are achievable in the counterfactual. We discuss this issue in further detail in section 8.2.2.

3.2.4. There are limitations with the changes matrix used by Oxera

Oxera's changes matrix is constructed over the period 2010-11 to 2019-20 using historic retail cost information and forecast information from the price determination. We consider there are limitations associated with considering historic reported costs for the purposes of constructing a changes matrix. Furthermore Oxera's assessment of future changes is constrained by the glidepath that was applied to companies above the average cost to serve, which leads to implausibly low changes in rankings towards the end of the period Oxera use to assess changes in rankings.

In respect of the historic dataset:

- Retail cost data is a relatively new data set, it has been reported since 2010-11 only (and it has only been reported and subject to audit opinion in the regulatory accounts since 2011-12). As it is a new dataset, there are some difficulties in making comparisons between companies due to different approaches to cost allocation and different interpretations of the reporting guidance by different companies in the regulatory accounts for 2011-12 to 2014-15. For example, the independent report we commissioned on accounting separation data recommended improvements to the comparability of retail accounting data.
- The first time that companies were required to report retail costs on a consistent basis using prescribed and consistent cost drivers was for PR14. Even so, we had to consider carefully the approaches adopted by companies to ensure they had followed the business plan guidance so that our assessment of average cost to serve was made on an appropriate basis. We needed to write to companies to set out some issues with regard to cost allocation in some instances.

In respect of the forecast dataset:

- A consequence of Oxera's approach that uses final determination information is that movements in rankings in the cost to serve assessment are minimal (for example from 2018-19 all companies above the average cost to serve are ranked 11th) and significantly lower than what might be expected given the increased management focus on retail activities that is brought about by the introduction of the retail price controls from PR14.

As retail activities are largely an opex activity, we consider it more reasonable to use rankings derived from opex data and so we have used opex rankings from 2000 to 2009. Given the starting positions of South West Water and Bournemouth Water, our matrix has the effect of reducing the benefits stated by Pennon that arise from the merger.

3.2.5. Detailed comments on the points raised by Pennon and Oxera

Assumption	Oxera/Pennon	Ofwat comment
Static approach	Following the static approach Oxera assess the benefits to be £17 million (or £5 million if bad debt is not re-estimated).	Our assessment based on the static approach is similar to that determined by Oxera. As the static approach assesses the hypothetical impact on benchmarks for 2015-20, a period in which price limits have already been set and the differences are not considered to be material (we assessed benefits of £21 million, or £5 million if bad debt is not re-estimated) we have not considered the differences in detail at this stage.
The merger results in a net benefit regardless of the assumptions made	Oxera states that regardless of the approach taken, the merger results in a benefit to customers. This driven by the starting position of the two companies.	Oxera's statement assumes that the benchmark used in the future is based on the average cost to serve or an upper quartile cost to serve. As stated in section 3.2.1, we have already signalled that we do not consider the average cost to serve will be the appropriate benchmark in the future. The benchmark we might use in the future will depend on the degree of convergence and evidence about the efficiency targets that should be applied for an efficient retailer. It is conceivable that a frontier benchmark, or benchmark that is external to the sector could be used in the future, in which case the benefit would be zero.

Assumption	Oxera/Pennon	Ofwat comment
		Despite Oxera's comment that under all circumstances, the impact will be a benefit for customers, Oxera's modelling using the deterministic approach, using an upper quartile benchmark, shows a **detriment** at PR19 (total detriment £9 million). We have not at this stage sought to fully understand the reasons for this in Oxera's modelling, but the conclusion is counterintuitive.
Assessment period	Oxera undertake the retail benchmark assessment over 30 years. The rationale for assessing the benchmark over 30 years is not set out	We consider it is reasonable to assess the impact of the merger on retail benchmarks over a shorter time period given the uncertainty about setting retail price controls in the future and the potential for the use of non-water based comparisons beyond 2025.
Changes matrix	Oxera's changes matrix uses retail cost data from 2010-11 to calculate rankings on an historic basis and forecast cost to serve data from the final determination to determine changes in rankings to 2019-20.	As set out in section 3.2.4, there are limitations to the approach adopted by Oxera to the construction of its changes matrix. Given the starting positions of South West Water and Bournemouth Water, we consider that Oxera's changes matrix may not reflect the changes that are likely to occur in practice. We consider this has the effect of overstating the benefits that Pennon state could arise from the merger.
Bad debt	Oxera state that under the deterministic approach, the benefits due to the reduction in doubtful debt adjustments as identified under the static approach are not considered.	We agree with Oxera's approach. As set out section A3.4.3 of our initial submission, future assessments of bad debt could make use of more granular demographic data and comparators from other sectors.

Assumption	Oxera/Pennon	Ofwat comment
Retail competition scenario	Pennon include a scenario that assumes effective retail market competition is in place 'by the beginning of PR19' and, as a result, Ofwat will cease to use comparative tools for retail activities (average cost to serve and bad debt adjustments, as well as the SIM, will no longer be relevant to the Ofwat regulatory regime).[17]	Retail competition for households would require primary legislation and implementation of appropriate systems, protocols and procedures to enable switching to occur. We consider this to be unlikely by PR19 and so the assumptions that underpin the scenario are also unlikely. It could be that Pennon's reference should be read as "PR24".

[17] Paragraph 8.24.

4. Outcomes

4.1. Background

In our initial submission, we quantified the effect of the loss of Bournemouth Water as an independent comparator. We set out that Bournemouth Water was assessed to be within the upper quartile for each of the three water service outcome delivery incentives (ODIs) for which an upper quartile benchmark was set at PR14. We used static and forward-looking approaches to quantify the impact of the loss of Bournemouth Water as an independent comparator using the willingness-to-pay data collected by companies in the PR14 business planning process. For both approaches, we normalised incentive rates and took account of deadbands and collars to take account of the range over which incentive rates applied in assessing the impacts in our initial submission. For the forward-looking assessment, we made assumptions about the degree of convergence of companies' performance in 2015-20 and beyond to assess the impact of the loss of Bournemouth Water as an independent comparator. Our assessment provides an indicative range of detriment of £12 million to £51 million using the static approach and £8 million to £66 million on the forward looking approach to 2025.

Pennon sets out its assessment of the impact of the loss of Bournemouth Water on our use of comparators for setting outcome delivery incentives benchmarks in section 13 of its initial submission, with supporting analysis from Oxera in Appendix F.

Pennon states that there will not be quantifiable costs from the loss of one or more water only companies in terms of performance commitments (PCs) and ODIs as:

- we were able to set benchmarks for wholesale wastewater ODIs and PCs with only ten observations;
- few outcome areas require comparative analysis to set upper quartile targets;
- convergence implies that there is limited scope for further improvement and it is questionable how much customers will be willing to pay for service improvements;
- local factors affect comparability as well as companies' ability to improve performance levels; and
- separate reporting by South West and Bournemouth will provide sufficiently independent data points for comparison purposes in the future.

Pennon conclude that there is no net impact of the merger on our ability to draw comparisons between water companies with respect to ODIs and PCs.

We set out our key points on Pennon's initial submission in the following section.

4.2. Ofwat comment on the approach taken by Pennon

We disagree with Pennon's statement its assessment that there will not be quantifiable costs from the loss of one or more water only companies is consistent with the view presented by Ofwat. We undertook a qualitative assessment of ODIs as part of the company specific uplift assessment at PR14 and undertook a quantitative assessment of ODIs as part of our initial submission.

Our key comments on the approach taken by Pennon are that:

- outcomes is an area where an attempt should be made to quantify the impact of the merger;
- the lower number of comparators for wholesale wastewater wholesale did impact on our ability to set benchmarks at PR14;
- Pennon's comment that it is questionable how much further improvements customers want to pay for, is not a reason not to carry out quantitative analysis; and
- Pennon's comment that local factors affect comparability is not a reason not to carry out quantitative analysis.
- Pennon's comment that there are comparability issues associated with interruptions to supply is not a reason not to carry out quantitative analysis

We also comment on a number of other issues raised by Pennon in its initial submission.

4.2.1. Outcomes is an area where an attempt should be made to quantify the impact of the merger

Outcome delivery incentives (ODIs) was an area where we were able to draw comparisons for the purposes of setting benchmarks at PR14. As set out in our Factual Submission[18] to the CMA, we expect that comparisons will continue to be made in setting benchmarks for performance in this area.

[18] Factual submission to the Competition and Markets Authority following the acquisition of Bournemouth Water Limited by Pennon Group plc

As set out in the table below, Bournemouth Water has been in the upper quartile of historic performance of the each of the three ODIs where comparisons were made to set benchmarks for the wholesale water service at PR14. The loss of Bournemouth Water as a good performing, independent, comparator could impact on the benchmark and hence targets for the levels of service that customers may receive in the future. We consider it to be reasonable, therefore, to carry out a quantitative assessment of the impact of the loss of Bournemouth Water, and we did carry out such a quantitative assessment of the ODIs that were subject to comparative assessment at PR14.

Table 2 - Comparative performance data of Bournemouth Water, South West Water and the upper quartile for the PCs and ODIs subject to comparative assessment

Average score 2013-14 compared to the upper quartile	Drinking water contacts (rate per 1000 population)	Mean zonal compliance	Hours lost due to water supply interruptions for three hours or longer, per property served
BWL	1.13 (4th)	99.977% (=3rd)	2.76 (1st)
SWT	6.17 (18th)	99.980% (1st)	22.8 (15th)
PR14 UQ	1.23	99.973%	12.3

The approach we adopted in our assessment recognised the issues raised by Pennon in its initial submission. We took account of a range of scenarios, recognising that financial incentives were implemented for the first time at PR14, that penalty rates, penalty collars and penalty deadbands vary across companies[19], and that we expect to see convergence in these measures over time.

In considering the points made by Oxera on the comparability of ODIs and local impacts, the CMA should note that in their representations to the draft determinations, a number of companies raised concerns about local factors that affected the benchmarks. Our assessment of these claims was set out in Appendix 2

[19] For example we normalised the incentive rates and took account of deadbands, collars and the range over which incentive rates applied in assessing the impacts in our initial submission. We also normalised the measures for the purpose of calculating the upper quartile benchmark at PR14.

of the final determination, where we concluded it was not appropriate to adjust upper quartile measures to take account of company-specific factors except in one case[20].

4.2.2. The lower number of comparators for wholesale wastewater wholesale did impact on our ability to set benchmarks at PR14

We set upper quartile benchmarks for the two sewerage service comparative ODIs based on ten data points for the sewerage wholesale price controls at PR14, however there were issues with identifying upper quartile positions as set out below which impact on the confidence we can place in the challenges we make.

The smaller number of comparators for wastewater affected how we applied the comparative assessment to one of the sewerage service comparisons. For internal sewer flooding there was considerable variations in the measure used across the 10 sewerage comparators meaning there was no obvious standard measure to use. As a result we had to make more sophisticated adjustments to the internal sewer measures than for the water service measures.

Recognising the more sophisticated adjustments we had to make, we only intervened for the 3 companies who were considerably distant from the upper quartile and we did not make adjustments for the other companies. With more comparators a standard measure might have become clearer and we might have been able to adjust all the companies to upper quartile not just those considerably distant from the upper quartile.

Furthermore, because of the range of possible performance measures for both the water and wastewater services it was easier to identify common performance commitments suitable for comparative assessments for the water service where we had 18 company proposals to examine rather than ten for the sewerage service. This is one of the reasons we had only two comparative assessments for the sewerage service and three for the water service.

4.2.3. Pennon's comment that it is questionable how much further improvements customers want to pay for, is not a reason not to carry out quantitative analysis

We agree that rewards and penalties should be driven by customer support. It is not clear that Pennon can draw a robust conclusion in this area as we acknowledge that

[20] We did add a reward to Dŵr Cymru's supply interruptions measures in response to its submissions on how the interconnectivity of networks affects supply interruptions (see pages 51-52 of Final price control determination notice: policy chapter A2 – outcomes).

one of the shortcomings at PR14 was that where customers expressed views to specific companies they did so on the basis of no or limited comparative performance information across all companies.

Therefore one option for PR19 is to ensure comparisons on each company's actual performance compared its peers is available to inform customer research, it is possible this could lead to an extension of the use of cross company comparisons for setting PCs and ODIs.

While customers and CCGs were not able to draw comparisons, there were instances at PR14 where customers were willing to pay rewards for better than upper quartile performance. An example is Portsmouth Water which has a performance commitment of 5 minutes for supply interruptions (better than the 12 minutes upper quartile) and a reward based on customers' willingness to pay for improving its performance below 5 minutes.

South West Water's own research at PR14 found evidence that customers agreed bills should be reflective of performance and improvements in service (Eftec / ICS Consulting "Risk and Reward Customer Research: Final Study Outputs", March 2014). Pennon state elsewhere in its submission (see for example paragraphs 13.13 to 13.15) that upper quartile for interruptions for supply is expected to be a more stringent target by 2019-20. This implies that Bournemouth Water could be an important comparator for setting upper quartile performance in the future if it remained an independent comparator.

4.2.4. Pennon's comment that local factors affect comparability is not a reason not to carry out quantitative analysis

Pennon set out that local factors affect comparability as well as companies' ability to improve service levels. Pennon consider Bournemouth's unique factors that include seasonal population with a high peak average-demand ratio and that 80% of customers supplied from only two water treatment works affect its relevance as a comparator.

Oxera also state that Bournemouth Water, somewhat atypically, has a single (industrial) customer which requires c. 30% of Bournemouth Water's distribution input. As such, Oxera suggest Bournemouth Water may have a customer base that values particular levels of service differently from the customer base of other companies. Oxera state that setting industry-wide targets based, in part, on Bournemouth Water's performance might risk setting inappropriate targets for the rest of the industry, as it might reflect the attributes of a non-standard customer base.

We note that At PR14, we assessed claims made by companies in respect of company-specific factors that companies said would impact on their ability to reach upper quartile levels of performance.

We assessed these factors against three assessment criteria: whether the factor highlighted was a material driver of performance; whether the factor was outside management control; and whether the factor impacts the company (or companies) in a materially different way to other companies. We used comparisons as a basis for these assessments.

Our assessment of company specific claims to the comparative ODIs was set out in pages 44 to 46 of policy chapter A2 of the final determination[21]. We found that six out of the seven company-specific factors suggested for water quality contacts failed our assessment criteria; for the one that was assessed as marginal against our assessment criteria. After further analysis, we concluded no adjustments were necessary. In addition, five of the six company-specific factors for supply interruptions failed our assessment criteria; for interconnectivity, we introduced a reward for Welsh Water following more detailed analysis.

In respect of Bournemouth Water's customer base, Bournemouth Water noted in its business plan that its supply to a single large customer represented 27% of total water supply in 2013-14. Bournemouth Water also stated that the supply to the large customer "can be considered almost as a separate, standalone water supply system". These comments, together with the fact that Bournemouth Water is in the upper quartile in our historic cost assessment and for ODIs – and that drinking water contacts and supply interruptions are normalised by population and properties served, rather than distribution input, mean we do not consider Oxera's comment that Bournemouth Water may not be appropriate for setting industry benchmarks to be a valid one.

Furthermore, we consider that a benchmark that is set at upper quartile, rather than say, frontier, or upper quintile, mitigates the effect that a company with particularly unique circumstances may have on the benchmark, an effect which could become more pronounced with fewer independent comparators.

[21] http://www.ofwat.gov.uk/pricereview/pr14/det_pr20141212outcomes.pdf

4.2.5. Pennon's comment that there are comparability issues associated with interruptions to supply is not a reason not to carry out quantitative analysis

Pennon state that there are comparability issues both now and in the future associated with the reporting of interruptions to supply. Pennon state rewards and penalties vary between companies, suggesting there are issues associated with consistency as to how this measure is valued across customers, or that the value depends on the customer preference in their area. [22]

We acknowledge that there are some differences in the way that companies report their performance, and in the scope of the rewards and penalties. Therefore for the purposes of assessing detriment, we consider scenario analysis is essential to assessing the impacts (as Pennon and Oxera have done for quantification in other areas). However we disagree that the comparability issues are a reason not to carry out quantitative assessment.

Our assessment looked at a range of scenarios, and made assessments on the basis of a range of assumptions about future performance. We also normalised incentive rates and took account of deadbands and collars to take account of the range over which incentive rates applied in assessing the impacts in our initial submission.

Furthermore, for the PR14 comparative assessment of supply interruptions we used the standardised Ofwat KPI data to calculate the upper quartile and then adjusted it for company-specific measures in the two cases when this was needed.

We are reviewing the use of willingness to pay information for future business plans as part of our Water 2020 project and will be consulting stakeholders on their views as part of the project.

4.2.6. Detailed comments on the points raised by Pennon and Oxera

Assumption	Oxera/Pennon	Ofwat comment
Comparisons for setting upper quartile	Ofwat has carried out effective comparisons with ten comparators for determining sewerage ODIs and PCs.	As stated in section 4.2.2, the smaller number of comparators contributed to making the comparison of internal sewer flooding at PR14 more difficult, it

[22] Paragraph 13.16

Assumption	Oxera/Pennon	Ofwat comment
		was also more difficult to identify suitable comparators for the wastewater service at PR14 because of the smaller number of comparators. In addition, this merger results in the loss of a historically good performing company (Bournemouth Water) which may in the future impact on the level of the benchmark that is used as the point for determining financial incentives in the future.
Convergence	Convergence implies there is limited scope for further improvement in those few areas where comparisons are undertaken.	We agree that assumptions around convergence should be taken into account in any assessment of detriment in this area. We have made assumptions about convergence in the assessment carried out in our initial submission and presented scenarios. Pennon argues elsewhere that because many companies have rewards for going beyond upper quartile performance actual performance is likely to be dynamic. This might reduce the extent of convergence between companies' performance. Should there be significant convergence in the comparative outcomes used at PR14 we might choose to apply comparators to other measures where performance varies considerably i.e. convergence in some measures does not mean there will necessarily be no value in comparative assessments at the next price review.

Assumption	Oxera/Pennon	Ofwat comment
Separate reporting	Performance against ODIs and PCs will be reported separately by South West and Bournemouth against the current price control. Given that operational staff will remain in place at Bournemouth Water, the separate reporting should provide sufficiently independent data points.	We consider that outcomes should be seen in the context of the long term; reporting of company performance in this area should focus on what customers need and want. We assume that Pennon's commitment relates to the current price control only. While operational staff may remain in place in the Bournemouth region, the two regions will operate under common management, therefore the benefit of separate data points arising from the lack of independent management is likely to be reduced.
Interruptions to supply	Pennon state that both companies have targets that would lead them to outperform the current upper quartile by 2019-20. Pennon state also that both companies are incentivised to beat its calculated assumption that the upper quartile will be 9 minutes if all companies meet their interruptions to supply targets in 2019-20[23]. Pennon state that five companies have a financial incentive to improve performance beyond their base target. This means the actual performance is likely to be dynamic in response to the regulatory incentive regime and so the sector will be insensitive to the loss of any one company[24].	While both companies are incentivised to achieve upper quartile performance by 2019-20, it is true to say also that all companies will be incentivised to achieve upper quartile performance. We agree that financial incentives will push companies to deliver improved levels of service. 14 of the 18 water companies have a reward for performing beyond the upper quartile level of 12 minutes in 2017-18 to 2019-20. However the approach to determining benchmarks for 2020-25 cannot be confirmed at this stage.

[23] Paragraphs 13.13 and 13.14
[24] Paragraph 13.15

Assumption	Oxera/Pennon	Ofwat comment
Drinking Water contacts	Pennon state that the loss of Bournemouth Water is expected to have no impact on the upper quartile position in 2019-20 because the forecast performance of both companies is above the forecast upper quartile in 2019-20 and the discolouration metric is considered to be a customer priority in the South West region.[25]	We cannot know now whether the loss of Bournemouth Water will have no effect on the upper quartile for drinking water contacts at PR19. We note that South West Water's historic performance on drinking water contacts overall ranks it as the worst performing company in the sector. South West Water focusses its response on discolouration contacts. We note that discolouration is only one element of drinking water contacts, others relate to taste and odour, although discolouration does typically comprise around 60-80% of contacts for the sector. Pennon's statement that South West and Bournemouth combined would make a better comparator is an assertion only – the chart below paragraph 13.19 of South West Water's initial submission, while demonstrating an improving trend, shows that South West Water has significant improvements to make if it is to achieve the PR14 upper quartile target in 2015-20. Assuming other companies also improve as a result of increased management focus in this area due to the introduction of upper quartile benchmarks, South West

[25] Paragraphs 13.17 to 13.19

Assumption	Oxera/Pennon	Ofwat comment
		will have still significant, further improvements to make if it is to achieve upper quartile performance.

5. Service incentive mechanism

5.1. Background

In our initial submission, we quantified the effect of the loss of Bournemouth Water as an independent comparator. We set out that Bournemouth Water was assessed to be within the upper quartile of the SIM scores over 2011-12 to 2013-14.

We used static and forward looking approaches to quantify the impact of the loss of Bournemouth Water as an independent comparator. We made assumptions about the degree of convergence on SIM and used a changes matrix when considering the forward looking approach.

We concluded the merger results in a detriment to customers as the merger is between a below-average performer (South West Water) and an above average performer (Bournemouth Water) resulting in a below-average performer. Our assessment indicated a detriment of £6 million using the static approach and £10 million using the forward looking approach to 2025.

Pennon sets out its assessment of the impact of the loss of Bournemouth Water on our use of comparators for setting outcome delivery incentives benchmarks in section 12 of its initial submission, with supporting analysis from Oxera in Appendix E.

Pennon suggest that comparisons can be made from other sectors and so water companies have relatively less value as comparators. Pennon suggest there is strong evidence of convergence in company SIM scores, such that the difference between the maximum and minimum is forecast to fall to a single point by the start of AMP7, which will limit the usefulness of the SIM. Pennon suggest that different assumptions about service improvements significantly reduce the detriment and could produce a benefit. Pennon suggest that separate reporting by South West and Bournemouth will decrease the loss of the comparator in AMP6.

Overall, Pennon conclude there is a detriment, at most, of between £1 million and £4 million, which it considers to be at the upper bound of the likely range. However, Oxera present a range of possible impacts which include assumptions that the performance of the combined entity would be above the weighted average of the separate companies as a result of an optimised customer service package representing the best of both companies. Oxera’s assessment is made over AMP6 only.

We set out our key points on Pennon's initial submission in the following section.

5.2. Ofwat comment on the approach taken by Pennon

Overall, we disagree with the level of detriment stated by Pennon. While Pennon's proposal for separate reporting may mitigate some of the detriment in 2015-20, there is no clear implementation plan that clearly demonstrates that the upper quartile levels of customer service, as evidenced by the SIM, will be maintained in the Bournemouth Water region while best practice is shared with South West Water.

We summarise in the following sections our key comments on the approach taken by Pennon which are:

- Oxera's analysis focusses only on the period until 2020;
- assessments based on Oxera's SIM performance projections may understate the detriment; and
- weightings applied to the assessment of the merged entity are more appropriate by customers served than by revenue

We also comment on a number of other issues raised by Pennon in its initial submission.

5.2.1. Oxera's analysis focusses only on the period until 2020

Oxera's analysis focuses only on the period until 2020, whereas our analysis assumes the SIM will remain in place until 2025. While we agree that poorer performing companies can be expected to catch up with the better performing companies, we do not agree that the SIM will not be relevant post PR19. We expect we will continually need to reassess and update the SIM to ensure it remains relevant (indeed as part of the PR14 process we went through a consultation process and modified the SIM to ensure continued relevance).

It is important to emphasise that our estimate of convergence was based on only three years of outturn data and the actual level of convergence might differ and could be slower than forecast. Nevertheless, we consider that we have taken a reasonable assumption in our assessment of convergence.

Oxera states that the standard deviation of OPA scores in the last year of formal reporting is similar to the standard deviation of SIM scores today. We note that we reviewed the SIM as part of PR14 and concluded that the SIM continued to be

appropriate to drive improvements in less well performing companies while continuing to encourage frontier companies to maintain or improve their position.[26] We do not consider that the degree of convergence that has already occurred will prevent the usefulness of the SIM going forwards.

While we have suggested that we could use alternative comparators from outside the sector to incentivise good levels of customer service, we have not, at this stage, identified appropriate external comparators or formally considered alternative mechanisms in detail. The Institute of Customer Service report identified by South West Water as a possible alternative uses a very limited sample size (compared to the SIM) and so may be less appropriate for use in an incentive mechanism which carries financial rewards and penalties.

5.2.2. Assessments based on Oxera's SIM performance projections may understate the detriment

We do not consider the assessment included in the table under paragraph 12.40 titled "Using South West Water and Bournemouth Water performance commitment SIM scores" is relevant.

This analysis uses performance projections based on South West Water and Bournemouth Water performance commitments.

For South West Water, these performance commitments represent a lower level of performance than implied by the assumptions that are related to convergence. To be relevant, Oxera would need to update its analysis to reflect performance commitments of all companies, but we note that not all companies included performance commitments for SIM in 2015-20. This less stretching performance commitment, compared with the convergence assumptions has the effect of overstating the benefit in Oxera's scenario 3b.

We question the assumptions that underpin the low end of the stated range of impacts (i.e. £0.8 million). This is because it appears Oxera assume that the combined entity will be on an improving trend to achieve the SIM performance levels set down by Bournemouth Water in its final determination for 2019-20 by the middle of the 2017-18 financial year. These performance commitment levels are materially above South West Water's current levels of performance and represent improvements to Bournemouth Water's already good levels of performance. They are also above the South West Water's stated performance commitment levels for

[26] Service incentive mechanism (SIM)for 2015 onwards – conclusions http://www.ofwat.gov.uk/regulating/aboutconsumers/sim/pap_pos140404pr14sim.pdf

2019-20 (although South West Water's performance commitments are on an increasing trend).

Furthermore, the analysis appears to miss the point that the rewards or penalties for the SIM are based on the average performance over the price review period. Other companies with SIM positions that are better than South West can be expected to improve their performance. And even if South West were to improve its performance over the period, lower scores in the earlier years would bring down the average performance. Consequently, even if South West's performance is on a par with Bournemouth Water by 2019-20, the final score relevant for assessment of SIM rewards and penalties will still be somewhat lower.

We question therefore whether (i) the benefits to the levels of service proposed by South West Water can exclusively be attributed to the merger and (ii) whether the levels of performance proposed will be achieved in practice.

Table 3 Historic and committed SIM performance for South West Water and Bournemouth Water

Company	Average SIM performance 2011-12 to 2013-14	Rank	Committed SIM performance in 2019-20
South West Water	70.5	16th	85.0
Bournemouth Water	86.0	2nd	89.0

Pennon has not set out clearly how South West Water will deliver the stated improvements in performance. While step improvements in performance have been seen in the SIM by other companies, these have been driven by factors such as improved IT solutions to help manage incoming contacts and complaints, or a bespoke customer service training programme (i.e. solutions that would not be dependent on a merger).

5.2.3. Weightings applied to the assessment of the merged entity are more appropriate by customers served than revenue

Oxera weight its assessment of the combined entity by revenue; we weight by connected properties. We consider that weighting the SIM score by connected properties is most relevant as it is more reflective of the possible proportion of customer contacts received from each operational area.

5.2.4. Detailed comments on the points raised by Pennon and Oxera

Assumption	Oxera/Pennon	Ofwat comment
Assessment based on South West Water and Bournemouth Water SIM scores	Oxera calculate the impacts using (i) the forecast SIM scores that underpin the PR14 small company uplift work (Oxera modelling 1, 2a and 3a) and (ii) using South West and Bournemouth Water performance commitment SIM scores (Oxera modelling forecasts 1b, 2b and 3b).	We consider the analysis under option (ii) to be misleading as Oxera have updated the SIM scores for performance commitments for South West Water and Bournemouth Water only. The projected performance commitments have not been updated for forecasts included in the final determination for any other company.
Convergence assumptions[27]	Significant convergence will limit the time period over which any impact of the merger occurs.	We agree that based on past evidence there will continue to be convergence in company performance with the laggards catching up with the best performing companies. Pennon have assumed convergence by 2020, whereas we assume convergence over a longer time period. We note that the degree of convergence implied for South West is more stretching than stated in its performance commitments for 2019-20 that was set down in the final determination. References made by Pennon on the SIM are potentially confusing, as in a number of places, references to statements made by Ofwat ("we") have been replaced with "Oxera". See for example, paragraphs 12.16 and 12.17 of Pennon's submission.

[27] Paragraphs 12.15 to 12.34

Assumption	Oxera/Pennon	Ofwat comment
SIM score of the merged entity	Oxera's base assumption is that the SIM score of the merged entity will be above that of South West as a result of an optimised customer service package representing the best of both companies.	Given South West Water's relatively poor starting position (17th out of 18 companies in 2013-14), we consider it unlikely that the SIM performance of the merged entity should align with the SIM performance of Bournemouth Water (3rd in 2013-14 and 2nd overall in 2011-12 to 2013-14) – in scenario 3b, Oxera assume that the merged entity achieves the performance of Bournemouth Water in all years from 2015-16. We consider therefore the stated customer benefit of £8 million is unlikely and potentially overstated. We consider an approach which weights the average of the performance scores of the two entities to be a more plausible approach as it will take time for customers to share in the benefits of best practice and we have not seen a clear implementation plan that demonstrates how best practice will be shared between the merged companies.
Separate reporting	Pennon propose that separate reporting of South West and Bournemouth SIM scores in AMP6 will reduce the impact of the merger on industry SIM scores.	It is not definitely the case that following the merger that customers of Bournemouth Water will continue to benefit from the high levels of service they have received in the past. While Pennon commit to share best practice, it is unclear whether the management practices of South West Water or Bournemouth Water will prevail; it is possible that a result of the merger is a reduction in service that is received by the customers of

Assumption	Oxera/Pennon	Ofwat comment
		Bournemouth Water, which, of itself, could lead to a significant detriment.
Assessment of detriment to 2020	Pennon and Oxera consider it is appropriate to consider detriment to 2020 only	Given the issues around convergence of the SIM, we will need to continually assess and amend the SIM to ensure it remains relevant (indeed as part of the PR14 process we went through a consultation process and modified the SIM to ensure continued relevance) Any changes we make will need to be considered alongside the SIM's ongoing effectiveness, and changes in the sector as a whole – e.g. the growth and effect of competition. For these reasons, we assess that it is reasonable to make an assessment of possible detriment until 2025.

6. Precision

6.1. Background

In our initial submission, we quantified the impact of the loss of an independent comparator on the precision of our wholesale econometric models as a result of the reduction in the sample size from 18 to 17 observations. Precision calculations provide an indication of the detriment resulting from potentially making the models less precise. We concluded that each additional merger will potentially reduce the precision of the cost models and so allow us to place less reliance on the results, which may make it harder to set stretching cost thresholds. We estimated the impact using the approaches adopted by the Competition Commission in previous merger investigations, these being:

- the specific approach,
- general approach (although we estimated the change in the confidence and prediction intervals as a proxy given the complexity of the PR14 models), and
- bootstrapping.

All of these approaches show a loss of precision as would be expected from a reduction in the sample that results from the loss of an independent comparator, even where a panel dataset is used. We set out, however, that mechanistic precision calculations are not the main criteria we have used to determine upper quartile as the benchmark at PR14.

Pennon sets out its assessment of the impact on the precision of the wholesale models in section 9 of its initial submission, with supporting analysis from Oxera in Appendix B and various Stata files.

Pennon present some of the modelling results from Oxera's analysis. The approaches presented are:

- **Theoretical approach**: Pennon set out that Oxera's modelling shows that the potential worsening in precision due to the loss of a comparator is not severe compared to those estimated under the approach adopted for wastewater models. Oxera compare the impact of going from 18 to 17 companies in water to going from 11 to 10 companies in sewerage.
- **General approach**: We consider Oxera's analysis here is less developed and it does not place much weight on it. Oxera does not run any calculations

here on the econometric models as they are too complex, so it has not estimated the impact.

- **Bootstrapping approach**: Pennon state[28] that comparing the results in the counterfactual (with 18 companies) and the factual (with 17 companies) indicates that precision would increase if Bournemouth Water was removed from the model. Oxera's aggregation is based on whether a large number of the coefficients are more than 25% for each model pre and post-merger.
- **Specific approach**: Pennon concludes that the specific approach shows increase in precision rather than a reduction. Oxera calculated confidence intervals for a cost model post-merger and compared it to both the confidence intervals of the model pre-merger and the confidence intervals of the sewerage model.

Overall, Pennon state that based on the approaches adopted, "it is possible to conclude"[29] that the merger has no material impact on model precision and there is no prejudicial impact on Ofwat's ability to use the upper quartile efficiency challenge.

We set out our key points on Pennon's initial submission in the following section.

6.2. Provisional comment on the approach taken by Pennon

We are continuing to assess the approach taken by Pennon to its assessment of the impact of the merger on the econometric models and so our comments in this section are provisional. We will however provide the CMA with further comment on the approach undertaken by Pennon in advance of the roundtable discussion scheduled for 28 July.

We note that Oxera place the most weight on the specific approach, where much of the analysis rests on a comparison to the sewerage models. Oxera's logic is that the resulting precision post-merger is still better than current sewerage models and therefore the upper quartile challenge and targets remain valid.

A large part of the approach and assumptions are similar to ours. However, the impact has not been estimated in all areas and in some areas, the results are contrary to ours. Given basic statistical theory that the precision of an estimate increases as the sample size increases, conclusions that indicate that reducing the

[28] Paragraph 9.4
[29] Paragraph 9.5

sample size produces an improvement in precision need to be interpreted with care.[30]

Our key comments on the approach taken by Pennon are:

- Oxera relies heavily on the comparison to the sewerage models to indicate models to indicate water models will still have acceptable precision; and
- the specific approach shows an increase in precision

We also comment on a number of other issues raised by Pennon in its initial submission.

6.2.1. Oxera relies heavily on the comparison to the sewerage models to indicate water models will still have acceptable precision

Oxera argues that the resulting precision post-merger is still better than the current sewerage models and therefore the upper quartile challenge and benchmark targets would remain valid. Oxera draws this conclusion by calculating the confidence widths of the sewerage models, which it then compares to the confidence widths in the specific approach following the merger. It shows that the sewerage confidence widths are larger than the post-merger confidence widths in water.

Oxera also use this argument in the 'theoretical' approach by benchmarking against the loss of comparator in the sewerage wholesale models (going from 11 to 10 comparators). The analysis shows an incremental reduction in precision but it suggests that as long as the number of companies is 15 or above, the models would be still more precise than in sewerage.

We do not consider Oxera's assessment to be the most relevant test. We noted, for example, in section A4.1.1 of our initial submission, that we were unable to identify robust wholesale wastewater totex models at PR14, even after extensive testing. These issues may well have been down to the smaller sample size for sewerage and instead we placed higher reliance on our unit cost models. Therefore, having only 10 comparators may well have restricted the range of models available to us.

As set out in our initial submission, there were a variety of factors, other than precision, that led to the selection of the upper quartile benchmark in both water and sewerage, that are not specific to the level of precision of the econometric models. These include lack of aligned opex and capex incentives to incentivise company

[30] We do note, for example, that if the 'additional' data points contained outliers then the precision may reduce.

behaviour before PR14, the quality of data and size etc. When losing observations in the cross-section, the precision of the models ultimately reduces. However, each additional merger potentially reduces the precision of the cost models, allowing us to have less confidence and place less reliance on the results which may make it harder for us to set stretching cost thresholds.

6.2.2. The specific approach shows an increase in precision

Oxera calculate confidence widths (intervals) pre and post merger for each model. Oxera shows that the intervals are smaller, i.e. precision is greater, post merger. Oxera use a different comparison overall to ours and also benchmark their results against sewerage models. We recalculate the upper quartile post merger (consistent with the approach adopted by the Competition Commission in the Cambridge Water / South Staffordshire Water merger) and this leads to a clear loss of precision.

Oxera primarily relies on the numbers from the specific approach to support the argument about the benefits of the merger. We have not been able to fully explore Oxera's specific modelling in detail and we will submit further comments on it to the CMA before the round table discussion scheduled on 28 July. At a cursory review, this conclusion appears counterintuitive.

6.2.3. Detailed comments on the points raised by Pennon/Oxera

Assumption	Oxera/Pennon	Ofwat comment
Comparison to sewerage	Oxera set out that the precision post-merger is still better than current sewerage models and therefore the upper quartile challenge and targets remain valid.	As set out in section 4.1.1 of our initial submission, we were not able to determine robust totex econometric models for sewerage wholesale with only 10 comparators. This may well have been down to the smaller sample. Therefore, having only 10 comparators may well have restricted the range of models available to us. As set out in Table 1 of our initial submission, precision of the benchmark was not the only reason that led us to use the upper quartile as the

Assumption	Oxera/Pennon	Ofwat comment
		benchmark.
General approach	Oxera carry out analysis on unit costs only. Oxera considered that it was too difficult to estimate this approach for the econometric models.	We agree this is a difficult area to model given the complexity of the translog models, which is why we relied on proxies for this approach. We are, however, surprised that Oxera has not attempted this approach given they were able to estimate a confidence width impact in the specific approach based on the same models.
Specific approach	Oxera calculate confidence intervals pre- and post- merger for each model, which shows a gain in precision.	Oxera use a different comparison overall to ours and also benchmark their results against the sewerage models. We recalculate the upper quartile post merger (consistent with the approach adopted by the Competition Commission in the Cambridge Water / South Staffordshire Water merger investigation) which clearly leads to loss of precision. We have not been able to consider the detail of Oxera's calculations in the time available. We will comment on Oxera's approach in a separate submission.
Bootstrapping	The proportion of variables whose bias or standard error increases by more than 25% reduces in the factual (after the merger) compared with the counterfactual (assuming the companies are not merged), therefore there is a gain in precision.	We agree bootstrapping is not a standard measure of loss of precision. Our estimate of the bias follows a similar approach to Oxera but the aggregation of results (as they are coefficient-specific) differs.
Other measures	Oxera set out that there is no	The analysis we undertook at

Assumption	Oxera/Pennon	Ofwat comment
of statistical performance	material change in results of RESET test, Links test and Adjusted R-squared	PR14 to test the robustness of the econometric models was a significant process and so we have not attempted to create new models in the time available. The tests and the process we carried out gave us confidence that we could rely on the results for the purposes of assessing business plans and setting price controls were much wider than the tests adopted by Oxera. The loss of a comparator will impact on the confidence we can place on econometric models in the future as the power of the tests of precision will be less with fewer observations.
Mitigations	Oxera propose that using a longer panel would mitigate having fewer observations. Oxera also propose that we could reduce the number of explanatory variables.	While lengthening the panel provides some mitigation, this only applies to the within variation (in random effects) and in OLS. Furthermore: - Random effects models make assumptions about constant efficiency, which may become unrealistic over longer periods. - Longer panel datasets, of themselves, may not address the issues arising from the loss of a data point over time. We would still lose the between variation (in RE) which is critical to identify efficiency. - Longer panels also create issues when trying to estimate the frontier shift in the industry. The time trend

Assumption	Oxera/Pennon	Ofwat comment
		(proxy of ongoing efficiency and real price effects) would also remain constant over the period modelled, which may not be a valid assumption in longer time series when the past becomes a less reliable guide for the future. - We tested alternative approaches at PR14 which made use of less explanatory variables, but these models were less robust for the purposes of price determinations at PR14. We therefore do not expect reducing the number of variables to produce better results and mitigate the loss of precision.

7. Qualitative assessments

7.1. Background

In section A5 of our initial submission we set out a structured, qualitative, assessment of the impact of the loss of Bournemouth Water (and South West Water) as independent comparators with important similarities or differences for comparison with other companies. We adopted the approach set out in our draft Statement of method[31] and Europe Economics' accompanying report[32]. This focussed on the areas where our regulatory approach has made explicit use of comparators in the past[33]. These comprised:

- customer engagement;
- specific cost adjustments;
- company behaviour;
- accounting and reporting data;
- financeability, risk and reward; and
- performance commitments (PCs) and outcome delivery incentives (ODIs)

The areas we identified where Bournemouth Water has demonstrated attributes that make it a useful comparator which suggest a detriment over and above those identified on the quantitative assessment included:

- Bournemouth Water's similarity to some other water only companies which was useful in assessing company claims for a small company uplift at PR14;
- attributes that could allow for sub-sample comparisons with other companies for wholesale costs;
- positive response to the challenges we put to the company through PR14 despite its small size;
- the development of outcome delivery incentives in Bournemouth Water's original business plan at PR14 where it had a leading approach in terms of the proportion of performance commitments that were subject to a financial incentive;
- evidence in respect of Bournemouth Water's proposed spend for a new customer relationship and billing system, which helped us to challenge the requests for billing system investment from other companies; and

[31] http://www.ofwat.gov.uk/regulating/pap_con201505mergers.pdf
[32] http://www.ofwat.gov.uk/rpt_com201505eemergers.pdf
[33] As set out in our initial factual submission, there are also other areas where use of comparators will be important in the future which also include for example the protection of customers in areas where effective competition arises in respect of retail activities and upstream competition.

- no issues identified in respect of compliance with Bournemouth Water's licence or in respect of our board leadership, transparency and governance principles.

We concluded that Bournemouth Water showed several areas where it is useful as an independent comparator to enable us to carry out our functions. We set out that this introduces a level of detriment over and above the detriment that it is possible to quantify in monetary or percentage terms.

Pennon comment on the qualitative aspects in paragraphs 13.21 and 13.22 of its initial submission. The assessment of the qualitative impacts arising from the loss of Bournemouth Water as an independent comparator is set out in appendix H of Pennon's initial submission Pennon use the criteria set out by Europe Economics report and provide a summary of how their plans relate specifically as evidence against these criteria.

Pennon have a different approach which we discuss further below in 7.2. They conclude that the merged entity is well positioned to maintain and improve other service metrics used for comparison purposes. Pennon state in particular the exemplar standards of board leadership, transparency and governance will be shared across companies.

7.2. Ofwat comment on the approach taken by Pennon

Both Pennon's and our approaches take account of the questions posed by Europe Economics[34]. However, while our approach has sought to determine the effect of the merger on different aspects in terms of our ability to make comparisons across the whole water industry, the Pennon approach appears to be narrower and to have only considered the questions in terms of how they apply to South West Water and Bournemouth Water with little consideration of the effect on comparative regulation as a whole.

While we understand Pennon's point that the merged entity might address areas where Bournemouth Water or South West Water are relative outliers, we are not just interested in factors following a merger that remove outlying data points. There are some aspects that make companies such as Bournemouth Water useful for challenging the approaches made by other companies as illustrated in the following example.

[34] Valuing the Impact of Mergers and Identifying Undertakings in Lieu http://www.ofwat.gov.uk/rpt_com201505eemergers.pdf

When considering the question “Was either merging party identified as having outlying costs for areas in which specific cost adjustments were considered for bad debt, new costs or input price pressure claims in setting retail controls?” Pennon concluded that as the merging parties are different from each other post merger the merged entity is likely to be more similar to other water comparators. Therefore Pennon state that the merger results in a better comparator.

However, in our approach to this same question we note that both South West Water and Bournemouth Water were useful comparators in their own right. In particular, Bournemouth Water submitted evidence for the need for investment associated with its new billing system which we used at PR14 to help us challenge requests made by United Utilities and Thames Water. If Bournemouth Water was not an independent comparator, these benefits might not have been realised.

8. Ofwat's comments on benefits stated by Pennon

8.1. Background

We commented on the relevant customer benefits arising from this merger in section 4 and Appendix B of our initial submission. Based on publicly available information we provided estimates of potential synergy savings which could amount to [redacted] by 2020 (comprising [redacted] related to wholesale activities and [redacted] relating to retail). We estimated that of this, [redacted] could be passed back to customers through the wholesale totex cost sharing mechanism in 2020-25.

We noted however that the lack of competition in the water service means that we cannot rely on the same incentives to ensure that potential relevant customer benefits are actually passed to customers. We said that we would apply most weight to benefits proposed by the merger parties where these are accompanied by a formal, public commitment or undertaking from the merger parties to lower customer bills and/or an adjustment to the totex baseline, as we could not otherwise be certain that the full amount of savings will accrue to customers.

We set out the areas where the merger parties could benefit from improvements in service quality. We set out that relevant service quality benefits should be supported by a clear rationale as to why they could only be delivered as a result of the merger. We said that a clear implementation plan would be helpful in demonstrating that these will be delivered.

We provided comments on the areas where benefits related to innovation could potentially arise as a result of the merger. We expected that the merger parties should put forward the areas where benefits to customers could arise from the adoption of innovative approaches. We said it was our view that the CMA should place weight on only those areas where there is external, third party evidence in support of the statements provided by the merger parties and where there is an implementation plan in place.

Pennon set out the benefits arising from the merger in section 7 of its initial submission. It sets out annual savings of [redacted] and benefits arising from [redacted]. It suggests areas where service quality could be higher for the merged entity, a commitment to maintain the tariff differential between the South West Water and Bournemouth Water operating regions and set out some examples of areas for innovation. Pennon

also set out the benefits arising from reduced risk and its proposals for enabling upstream and retail markets to develop.

We set out our key points on Pennon's initial submission in the following section.

8.2. Ofwat comment on Pennon's submission

There are comments in Pennon's submission where there is agreement or that we welcome. There are also areas that we question where the CMA may want to consider further evidence.

We set these issues out in the following sections

8.2.1. Pennon's comments where there is agreement or that we welcome

- We welcome Pennon's comments that it is committed in principle to establish a separate non-household retail business for market opening in April 2017[35] and we welcome Pennon's comment that it expects to move towards new arrangements that support upstream market reform[36,37]. However, the exact form of retail competition remains subject to approach that is put forward by Government. We note therefore that Pennon's comments in this area are not final and caveated as 'in principle' and so depend on the final form and scope of retail competition.
- We support Pennon's commitment to remove the small company premium from 2016/17[38]. Pennon suggest these will be shared with customers at PR19, although we note it would be possible for Pennon to share these benefits with customers before PR19.
- We welcome Pennon's commitment to retain the tariff differential between customers in the South West and Bournemouth Water regions and to consider using the WaterShare mechanism to profile revenues to

[35] Paragraphs 7.40 to 7.45
[36] Paragraph 7.46
[37] The introduction of competition into different parts of the value chain as set out by Pennon in Appendix I of its initial submission is likely to take some time to develop and could take many years. Some of the changes set out by South West Water may require legislative changes. The need for comparisons will also depend on the nature of competition, for example if competition is only introduced for the delivery of new assets then comparisons will still be needed for existing assets which are not subject to competition. The areas of the value chain identified by Pennon as most likely to be open to competition - namely water resources, water treatment and sludge - make up a relatively small part of the overall value chain, representing around 3.6%, 1.7% and 0.7% of the net modern equivalent asset value. We consider that comparative competition for the network part of the value chain that will remain natural monopoly will remain subject to economic regulation and comparative competition for the foreseeable future.
[38] Paragraph 7.5

Bournemouth Water customers which may have the effect of smoothing customer bills.

- We welcome Pennons' statement that Bournemouth Water customers will not see any deterioration in the local service that they currently receive.
- We considered the WaterShare mechanism introduced by South West Water at PR14 to be innovative. Similar mechanisms were subsequently introduced by other companies including Bournemouth Water. We welcome Pennon's commitment[39] to consider its approach to ensuring the mechanism in place at Bournemouth Water will adopt the best practice approaches it has adopted. Although we note there is little detail to confirm how and when this will be done.

8.2.2. Pennon's comments that we consider should be supported with further information or which we question

We consider a number of the statements on higher service quality that are based on assertion or require further support. Some of these were discussed with Pennon in advance, of its submission, where we explained we would place greatest weight on benefits where there is a firm commitment to demonstrate that the benefits stated will materialise. For those areas that are stated as best practice, we said we would place greatest weight where they are supported by robust evidence from third parties and where there is a clear integration plan in place[40].

Cost savings

- Pennon set out details of possible cost synergies that could arise from the merger. We consider these to be at the upper end of expectations. We consider these need to be supported by more detailed bottom up evidence, an implementation plan and an undertaking which clearly sets out the benefits that will be shared with customers[41]. As set out in section 4.1.1 and Appendix B of our initial submission, we consider an undertaking that is accompanied by an adjustment to the wholesale cost baseline is the most appropriate way to ensure management remains incentivised to deliver the proposed synergy

[39] Paragraphs 7.34 and 7.35
[40] See for example, the email from Andrew Chesworth to Iain Vosper dated 30 April.
[41] We agree with Pennon's comment (paragraph 3.26) that wholesale efficiencies that are achieved in 2015-20 will be shared with customers in 2020-25. However, in the absence of an undertaking and a commitment to a baseline adjustment for wholesale costs, the incentives on management to deliver synergy savings stated as well as ongoing efficiency savings will not be kept whole. Undertakings of this nature will provide the strongest incentives on management to deliver the savings Pennon state will arise for customers and shareholders.

savings for customers and investors, while keeping incentives to deliver ongoing efficiencies.

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Service performance

- Pennon state[42] that the table that follows paragraph 7.20 illustrates good performance across South West and Bournemouth in 2013-14. We note that only three of the ten criteria stated in the table relate to performance – leakage, drinking water quality and SIM.
- Pennon state the merger will result in better customer service as a combined entity[43], although it is not clear how this will be delivered.
- Pennon state that South West Water will be able to provide more resilience and robustness over a wider area[44] and to respond more effectively during emergencies or peak periods[45], however Pennon provide no evidence to suggest there are resilience issues at Bournemouth Water. Indeed we not aware of any resilience issues at Bournemouth Water and we would be concerned about compliance with the licence if such issues were to exist.
- Pennon state that SIM performance for the combined entity will converge to the level of Bournemouth Water[46]. As set out and evidenced in section 5.2.2, we consider that South West Water's relatively poor performance on SIM already places significant incentives on management to improve its performance in the future. Step changes in SIM performance have been achieved as a result of initiatives that are not dependent on a merger, such as

[42] Paragraph 7.20
[43] Paragraph 7.22
[44] Paragraph 7.20
[45] Paragraph 7.25
[46] See for example paragraph 7.32

implementation of much improved IT solutions to help manage incoming contacts and complaints, or implementation of a bespoke customer service training programme.

Innovation

- Catchment management – we note other companies have approaches to catchment management that may be considered to be leading. We would assess Severn Trent to have a leading approach in terms of the development of ODIs that incentivise it to deliver on catchment management in 2015-20; Welsh Water also has an ODI in this area and Wessex Water, a neighbouring company, claimed its approach was leading at PR14. It may be helpful for the merged parties to set out the known catchment management problems at Bournemouth Water and how the merger will resolve these issues.
- Network management – while we acknowledge South West Water's network management has improved, it is possible further improvements could be made. South West is the worst performing company for discolouration contacts per 1,000 population, whereas Bournemouth Water is a leading company in this area. While South West Water potentially could learn from the leading performance of Bournemouth Water, the loss of a good performing company could be a detriment to the sector.
- Leakage – in 2013-14 all companies including Bournemouth Water and South West Water operated within their sustainable economic levels of leakage. Pennon have not evidenced the particular issues arising in Bournemouth Water's region that it says will lead to benefits from the South West Water approach, or set out how these will be implemented.
- It is not clear from the statements made by Pennon in the areas of network management, water resource strategy, metering, treatment capability, workforce management, resilience, stakeholder and regulator liaison, data asset and visualisation and innovation in customer service, that customers will receive tangible benefits that could only be the result of the merger. The CMA may want to consider what robust, third party, evidence Pennon can provide to support its claims that it is leading in these areas that the benefits cited can only arise as a result of the merger.
- Similarly, Pennon state that it is only as a result of the merger that the outcomes stated in the figure that follows paragraph 3.11 could be realised. We consider this statement to be unsupported from the evidence in the remainder of the document and it is unclear these benefits could only arise as a result of the merger.

8.2.3. Benefits stated by Pennon that we do not consider to be 'relevant customer benefits'

Relevant customer benefits for the purposes of consideration in a merger investigation are those which are limited to relevant customers in the form of lower prices, higher quality, increased choice or greater innovation in relation to goods and services. The benefits must accrue to customers of the merging enterprises, including future customers and can encompass customers at any point in the chain of production and distribution.

Pennon note a number of constraints on Bournemouth Water that were brought about by the Artesian financing arrangements. Pennon states it is discussing these arrangements with the debt providers. These arrangements place constraints on Bournemouth Water that restrict its ability to establish a separate non-household retail business[47]. We do not consider that benefits arising from renegotiating the terms of the Artesian financing arrangements could be considered to be a customer benefit. Our long-held policy is that financing structure is a matter for each company and its investors. Where companies have entered into restrictive financing arrangements, it is investors rather than customers that should bear the costs of restructuring the financing arrangements. Pennon will have been well aware of our policy on financial structure when making this acquisition.

[47] Paragraph 7.42

Appendix 1 Company acronyms

The table below sets out the company acronyms.

Company name	Company acronyms
Water and sewerage companies	
Anglian	ANG
Dŵr Cymru	WSH
Northumbrian	NES
Severn Trent	SVT
South West	SWT
Southern	SRN
Thames	TMS
United Utilities	UU
Wessex	WSX
Yorkshire	YKY
Water only companies	
Bristol	BRL
Cambridge	CAM
Dee Valley	DVW
Portsmouth	PRT
Sembcorp Bournemouth	BWL
South East	SEW
South Staffordshire	SST
South Staffordshire/Cambridge (post merger)	SSC
Sutton & East Surrey	SES
Affinity	AFW

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