Wessex Water Services Ltd Response to Ofwat’s PR19 Draft Determination – August 2019

Representation reference: Cost Assessment C19
Representation title: Retail costs

Summary of issue

In its Initial Assessment of Plans (IAP), Ofwat allowed Wessex £145m of costs to cover its residential retail activities over PR19, leaving a gap of £20m compared to the company’s Business Plan proposal of £165m. More recently, at draft determination (DD) Ofwat made a number of changes to the way it assessed residential retail costs, which in net terms resulted in our retail cost allowance being reduced to £143m (a reduction of £2m, or a further 10%, relative to IAP).

We have examined the changes implemented by Ofwat to its retail cost assessment approach between IAP and DD, in order to understand the drivers of the reduction in our allowed costs. In doing so, we have identified three changes that we consider are inappropriate and result in our efficient costs being understated. Specifically, we consider Ofwat is unjustified in: (i) excluding models RDC10 and RTC11; (ii) converting average bill size forecasts to real terms; and (iii) continuing to place significant weight on the forward-looking efficiency challenge.

We also propose an additional refinement to Ofwat’s calculation of the historical efficiency factor by taking account of forward looking cost changes against the model.

In the remainder of this representation paper, we first explain Ofwat’s method for deriving efficient retail cost allowances at IAP. We then identify the key changes made at DD - and, for each, estimate the impact it had on our cost allowance between IAP and DD by calculating a counterfactual cost allowance had the change not been made. Finally, we explain ‘why’ the above three changes are unjustified and result in our efficient costs being understated – explaining how Ofwat should address this in the Final Determinations (FDs).

Change requested

- Include models RDC10 and RTC11 in the assessment of residential retail costs.
- Revert average bill size cost driver to nominal terms.
- Place greater weight on the historical efficiency challenge.
- Include the net effect of RPEs and efficiency challenges in the historical efficiency challenge.
Rationale (including any new evidence)

Retail cost allowances at the initial assessment of plans

Ofwat calculated companies’ efficient retail costs at IAP using the following method.

- It developed nine econometric models to estimate three different levels of modelled costs, as follows:
  - three bad debt cost models;
  - two other (non-bad debt) cost models; and
  - four total cost models.

- Each model was estimated using historical data for the relevant cost drivers. The resulting coefficients were then multiplied by forecasts of the same cost drivers, in order to give a projected cost level for each model.

- For each company, the modelled bad debt costs were triangulated with equal weighting to attain a singular bad debt cost figure. The same was done for other retail costs and total costs, respectively.

- Bad debt costs and other retail costs were summed together to reach a ‘bottom-up’ view of totex, whilst the total cost figure represented the ‘top-down’ view.

- An average of these two figures was taken to acquire an overall triangulated level of retail costs for each company.

- Finally, Ofwat took the ratio of modelled costs to those companies had forecast in their business plans - and identified the upper-quartile level of efficiency on this basis. This rate of efficiency was then applied to all companies’ modelled cost levels, as an ‘efficiency challenge’. Since the challenge is based on forecast modelled costs and companies’ business plan projections, it can be considered a ‘forward-looking’ efficiency challenge.

In the case of Wessex, this approach produced a triangulated modelled cost figure of £197m over PR19, with an efficiency challenge of 0.74, resulting in efficient (allowed) costs of £145m at IAP.

Changes made at draft determinations

From IAP to DD, our retail cost allowance fell by £2m, as a result of Ofwat making a number of changes to its assessment of efficient costs. We identified the key changes implemented by Ofwat as follows:

- models RDC10 and RTC11 were removed from the suite;
- average bill price data was changed from nominal to real terms;
- some historical and projected cost driver data had been updated;
- consequently, the estimated coefficient values were altered; and
- the efficiency challenge was calculated as an average of forward- and backward-looking efficiency.

Due to the interdependencies of different aspects of the cost modelling method, it is difficult to identify the marginal impact of each individual alteration made by Ofwat (for example, changing one variable in one model will lead to changes in the coefficients across other variables - and so in the level of efficiency challenge). We therefore examined the changes made by Ofwat aggregated into the following three categories:
In the following sections we summarise Ofwat’s stated explanation for making the changes – and demonstrate the impact of these on our allowed retail costs at DD. To do this, for each of the three categories above we have calculated a counterfactual cost allowance by re-estimating our allowed costs if the ‘change’ in question had not been made (but the others had). Following this, we explain why certain changes made by Ofwat are not justified and set out how the regulator should address this at the FDs.

Rationale and impact of the changes made

Models that were dropped

One bad debt model (RDC10) and one total cost model (RTC11) were excluded from the suite used at DD. Ofwat’s reasoning behind this was that both these models contained the council tax collection rate variable, for which, since IAP, the data had been updated - such that it rendered the variable statistically insignificant and unstable.1 Noting that these models contained other variables that underwent data changes for DD (average bill size and proportion of metered customers), we checked that it was indeed the council tax collection rate data causing the problems. This was done by re-estimating the models using the old IAP data for council tax collection, and the updated figures for the other variables. The results confirmed that the council tax collection data was the cause of the issues identified. We then calculated the impact of this change on our cost allowance by re-estimating models RDC10 and RTC11 using the DD data, and then triangulating overall costs using Ofwat’s IAP method. We did this firstly using the old figures for council tax collection rate and again with the update from the ONS. The results are shown in the tables below.

<table>
<thead>
<tr>
<th>Challenge applied</th>
<th>DD actual</th>
<th>DD counterfactual</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>No challenge</td>
<td>£171.32m</td>
<td>£179.48m</td>
<td>£8.17m</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>£147.23m</td>
<td>£4.10m</td>
</tr>
<tr>
<td>Forward-looking</td>
<td>£143.13m</td>
<td>£136.32m</td>
<td>£-6.81m</td>
</tr>
<tr>
<td>Backward-looking</td>
<td>£158.14m</td>
<td>£15.01m</td>
<td></td>
</tr>
</tbody>
</table>

Source: Economic Insight analysis of FM_RR2

The above shows that, if Ofwat had opted to retain the two models and used the older version of the council tax collection data, our allowed level of efficient costs would have been £4.1m higher than was allowed at DD. If Ofwat had kept the models in and used the more recent council tax data, our allowed efficient costs would have been £1.4m higher.

### Cost driver data and specification

Out of the cost drivers that were used in both IAP and DD, there were three which were altered.

- ‘Total migration’ was changed, so that the 2016/17 value was used for each year in the sample (both for historical and forecasts). This decision was made by Ofwat as a result of it identifying a difference in the ONS’s methodology from this year onwards. Ofwat chose to use the figures from this year, rather than 2015/16, as it believed that the more recent methodology is more reliable.\(^2\)

- At DD, the ‘proportion of metered customers’ took figures directly from companies’ business plans, whereas at IAP, data from Water Resources Management Plans (WRMP) had been used. Ofwat stated that this means the figures are more up-to-date and consistent across companies. In our case, this results in lower forecast figures.\(^3\)

- ‘Average bill size’ was changed from nominal terms to real terms, with the rationale being that the values should be expressed in the same terms as the dependent cost variable. Naturally, this lowers the forecast variables of this cost driver for all companies.\(^4\)

Accordingly, we have calculated what our efficient residential retail cost allowance would have been, had the above changes not been made. The results are shown in the following table.

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\(^2\) Ibid., page 81.

\(^3\) Ibid., page 82.

\(^4\) Ibid., page 83.
Table 3: Impact quantum of changed cost driver figures

<table>
<thead>
<tr>
<th>Challenge applied</th>
<th>DD actual</th>
<th>DD counterfactual</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>No challenge</td>
<td>£171.32m</td>
<td>£188.50m</td>
<td>£17.19m</td>
</tr>
<tr>
<td>Average</td>
<td>£156.51m</td>
<td></td>
<td><strong>£13.38m</strong></td>
</tr>
<tr>
<td>Forward-looking</td>
<td>£143.13m</td>
<td>£146.95m</td>
<td>£3.82m</td>
</tr>
<tr>
<td>Backward-looking</td>
<td>£166.08m</td>
<td></td>
<td>£22.95m</td>
</tr>
</tbody>
</table>

Source: Economic Insight analysis of FM_RR2 and FM_RR2_DD

As shown in the table, our efficient allowed retail costs would have been £156.5m, had these data changes not been made - that is, £13.4m higher than Ofwat’s proposed allowance at DD. As we subsequently explain, within this category of changes, our view is that the decision to use ‘real’ rather than ‘nominal’, bill size values is not objectively justified.

Efficiency challenge

At IAP, the efficiency challenge applied to modelled costs was based purely on companies’ forward-looking efficiency. More recently, at DD, Ofwat changed its approach, so that the efficiency challenge figure was the average of the forward-looking and historical upper-quartile efficiency levels. Ofwat made this change in response to companies criticising the IAP method on the basis that it was inconsistent with the method used for wholesale costs, and that it is unreasonable to base the challenge on cost projections that have not yet been achieved. Ofwat acknowledged this, and also noted that the level of costs that companies have achieved/forecast is already stretching. Consequently, at the DDs, Ofwat modified its approach – taking an average of the two efficiency challenges to “strike a balance”.

As we subsequently explain, we continue to believe that the ‘forward-looking’ approach is erroneous and, by placing undue weight on it, Ofwat is understating our efficient costs. The following table shows the impact of Ofwat’s change to reduce the weighting on the forward-looking approach from 100% to 50% at IAP. As can be seen, the change has resulted in our allowed efficient costs being £7.8m higher than would have otherwise been the case. However, as we subsequently explain, by continuing to place undue weight on forecast information, Ofwat is nonetheless understating our efficient residential retail cost.

Table 4: Quantum impact of change in efficiency challenge

<table>
<thead>
<tr>
<th>Challenge applied</th>
<th>DD actual</th>
<th>DD counterfactual</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper quartile</td>
<td>£143.1m</td>
<td>£135.3m</td>
<td><strong>£7.8m</strong></td>
</tr>
</tbody>
</table>

Source: Economic Insight analysis of FM_RR2 and FM_RR2_DD

5 Ibid., page 84.
Are the impacts of the changes specific to Wessex?

For each of the changes, we also looked at the effect they had on other companies, in order to ascertain whether Wessex has been more adversely affected than others.

Overall effect on allowed costs

We compared the change in allowed costs from IAP to DD across all companies. This revealed that 10 out of the 17 companies experienced cost allowance increases between the two assessments, whereas Wessex received the fourth largest reduction in costs.

Models that were dropped

Out of the bad debt models, when the older council tax data is used, we find that RDC10 models had the highest level of costs for all companies. The same is true of RTC11 amongst the total cost models. This implies that all companies would have been set higher efficient cost allowances (to varying degrees) had these models been retained at DD, using the original data.

If, on the other hand, the up-to-date data for council tax is used, the same is not true. Whilst our allowed efficient costs would be higher if the models are included, the results are mixed for other companies, some of which would actually have lower cost allowances, had the models been included using the recent data. Therefore, depending on which data source is used, the impact of dropping the two models could be seen as generally applicable, or more specific to Wessex.

Cost driver data and specification

The change made to the total migration data led to all companies except Welsh having lower forecast figures. However, given that the data change caused the variable coefficient to go from negative to positive, other things equal, companies will tend to have higher efficient allowed costs as a result (and more importantly, the coefficient is now intuitively valid).

Wessex’s reported proportion of metered customers has fallen by around 6% as a result of the data change. For other companies, the effect is mixed, with the difference in forecasts ranging from +/- 11%. Consequently, our modelled costs have been reduced relatively more than most companies, given that this variable has a positive coefficient.

Moving from nominal to real terms for average bill size will, of course, result in lower figures for all companies. Drawing comparisons of the effect of the change across companies, however, indicates that we experience a larger than average decrease in our allowed efficient costs.
**Why Ofwat’s modifications are unjustified**

We believe Ofwat is unjustified in:
- excluding models RDC10 and RTC11;
- using real, rather than nominal, average bill size; and
- continuing to place undue weight on forecast efficient costs in setting the efficient challenge.

In the following sections expand on why we have reached these views and highlight how Ofwat should address this at the FDs.

**The exclusion of models RDC10 and RTC11**

As mentioned earlier, we tested these models to check that the issues cited by Ofwat were, in fact, being caused by the council tax collection variable; we found Ofwat to be correct. Given these results, we presume that Ofwat’s rationale for dropping the models is based primarily on the fact that the council tax variable was statistically insignificant. However, in our opinion, this is not sufficient grounds for excluding the models altogether at DD.

Firstly, although statistical significance is desirable in econometric cost models, it is not a requirement. What is equally (if not more) important is that intuitively valid drivers, which impact costs in ways that are outside of management control, are included – so that the explanatory power of the model is appropriate. This matters because the assumption in cost modelling is that the error term can be (partly) attributed to inefficiency. Consequently, to ensure models are not over-stating inefficiency, it is important that models include relevant variables, even if they are not necessarily statistically significant. Importantly, this logic also extends to ‘model selection’ and ‘triangulation’. That is to say, in order to arrive at a credible and appropriate triangulated cost allowance, it is important to incorporate results from a wide range of models, with different variables included. As such, the claim that there is less economic rationale for using the council tax collection rate variable does not mean that it should be left out completely. Therefore, the decision to exclude the models based on the statistical insignificance of one variable, is not well justified.

Secondly, this point is particularly true in this case since, although some variables in these models are not statistically significant, they all have the sign that we would expect (positive for proportion of metered customers and average bill size; negative for council tax collection rate). Therefore, the coefficients are all having the desired effect when the cost projections are made. As such, the lack of statistical significance should not have any distortionary impact on cost allowances.

Thirdly, throughout the suite of models used at DD, there are several instances of variables which are not statistically significant, and yet have been retained in the assessment. This implies an inconsistency in the draft determination’s reasoning and weakens the justification for removing the models specifically altogether.

As an additional comment, we observe that models RDC10 and RTC11 are the most ‘generous’ in terms of cost allowances. This means that including these models, on the whole, tends to increase the overall predicted level of efficient residential retail costs across companies. This goes to the issue of ‘balance’ and the need for regulators to weigh up the
risk of setting: (i) ‘too high’ prices on one hand; against (ii) ‘too low’ prices on the other. Both of these risks are detrimental to customers where they manifest. As such, the approach should reflect an ‘even-handed’ weighing up of evidence. In this case, the decision to exclude two models on the grounds of one variable performing less strongly statistically, yet to include other models where the same issue occurs, does not appear to be consistent with this principle.

Based on the above evidence – and our analysis which showed that our efficient costs may now be understated by between £1.4m and £4.1m – our strong view is that Ofwat should therefore reinstate retail models RDC10 and RTC11 at the FDs.

The use of real, rather than nominal, average bill size
As noted previously, at the DDs Ofwat used average bill size expressed in ‘real terms’ in order to estimate efficient debt related retail costs – whereas, at IAP, nominal values were used. We believe this clearly and demonstrably results in efficient costs being understated - and so Ofwat should revert to the nominal approach at the FDs.

In understanding the problem with Ofwat’s approach, it is important to recall the intuition behind the inclusion of ‘bill size’ in the first place. Firstly and primarily, the variable captures the ‘value foregone’ in the event of customers defaulting, or going into arrears, in relation to their bills. Put simply, for a given probability of default / arrears, the efficient ‘cost’ faced by a water retailer will by definition vary with the absolute ‘size’ of the bill in question. Secondly, it is also possible that the probability of default / arrears may itself be related to the size of bill. Thus, the inclusion of a ‘bill size’ variable within the retail model suite rightly recognises the fact that it materially impacts costs in ways that are clearly outside of efficient (retail) management control.

With the above causality and intuition in mind, it is also plain that it is the ‘nominal’ measure that: (a) accurately reflects the ‘value foregone’ (efficient cost incurred) by companies, if customers default / enter into arrears; and (b) would be the relevant determinant of any additional impact via increased default probability (i.e. customer behaviour is affected by the size of the bill they face, not its value in ‘real terms’). Put simply, if a customer defaults on a £100 bill, the cost to an efficient company is £100, not £100 less the impact of inflation (i.e. the cost impact occurs in nominal terms). Adjusting the average bill size for inflation is, therefore, erroneous - as it understates the true efficient cost impact.

In its recently published question and answer session relating to cost efficiency, Ofwat was challenged on its use of real values for average bill size and made two points in support of its decision: (i) it would be inconsistent to use real terms for the variable when estimating the model, and nominal terms for the cost driver forecasts; and (ii) although its retail cost allowances are not indexed to inflation, they are indirectly linked to inflation through the forward-looking efficiency challenge (which is based on companies’ business plan, which, Ofwat states, already embed companies’ assumptions regarding inflation).6

We consider this reasoning to be flawed on both counts. In relation to the first issue, we agree that one would ideally adopt an internally consistent approach to model estimation and cost forecasting. In this case, however, because for the reasons outlined above, it is clearly the ‘nominal’ values that drive the efficient costs incurred by retailers, the appropriate solution to that is to re-estimate the models using the nominal bad debt figure. It is unclear to us why the draft determination did not adopt this, more obviously correct, approach.

Alternatively, in this case, given that the models capture bill size in logs (and the consequent impact of how costs \textit{change} in respect to bill size, also in logs) it would intuitively seem likely that the estimated coefficient would not be materially affected by whether one used real or nominal bills as the measure when estimating the model in the first place. Hence, one could assume that for modelling purposes, the distinction is likely unimportant, and hence ‘real’ bills can be interpreted as ‘nominal’. Therefore, ‘in practice’ the internal consistency point raised by Ofwat likely does not arise to any meaningful degree. Hence, if Ofwat was disinclined to re-estimate the models, this would seem to be a reasonable working assumption. Relatedly, we note that the coefficients on the average bill size variable remain stable between IAP and the DDs, as summarised below. Whilst this does not provide information as to whether the coefficients would remain stable if estimated in nominal terms, given other changes that occurred to the model specifications and underlying cost driver data, it does suggest general ‘stability’ of the parameter estimates.

\textbf{Table 5: Changes in bill size coefficients between IAP and DDs}

<table>
<thead>
<tr>
<th>Model</th>
<th>reRDC1</th>
<th>reRDC2</th>
<th>reRTC3</th>
<th>reRTC4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ofwat stage</td>
<td>IAP</td>
<td>DD</td>
<td>IAP</td>
<td>DD</td>
</tr>
<tr>
<td>Average bill size coefficient</td>
<td>1.138</td>
<td>1.138</td>
<td>1.079</td>
<td>1.125</td>
</tr>
</tbody>
</table>

Unfortunately, the approach at DDs is not consistent with the intuition of how bill size drives efficient retail costs and is, therefore, demonstrably flawed.

The second point made by Ofwat, seems to be implying that the draft determination retail cost allowance is already compensating companies for inflation in some way, and so this means that using a ‘real’ value for average bill size is appropriate. This is wrong as a point of logic for the following reasons:

- It is Ofwat (not the companies) that is ultimately setting the efficient cost allowances – and under its PR19 methodology, residential retail costs allowances are being set in nominal terms. It is therefore for Ofwat to ensure its allowances accurately reflect efficiently incurred costs – which logically should also reflect relevant input price pressure (real price effects).
- Following from the above there is no mechanism within its method for the residential retail control that automatically allows for relevant inflation. Consequently, irrespective of company plans, the determination cost allowances for retail do not, in
fact, explicitly include inflation in any way (nor any specific inflationary impact due to average bill sizes).

- The fact that companies may have included some degree of inflation in their own retail cost forecasts does not mean that the determination’s allowances include any such impacts. For example, suppose a company had assumed 2% inflation across all of its retail costs in its plan. Under the determination’s methodology, our understanding of the impact of this on the company’s allowed efficient costs is as follows:

  o It would impact its relative efficiency position on a forecast basis – depending on what other companies had assumed about inflation. That is to say, if other companies had assumed less than 2% inflation, the company’s relative position would be ‘harmed’, making it appear less efficient – and vice versa.

  o There is not, however, any part the determination’s method that adjusts the level of allowed retail costs upwards to reflect inflation ‘in general’. Namely, in the above example, other than the impact on allowed costs through its revised relative efficiency position, the company would not be awarded ‘2% more’ cost pa to reflect inflation assumed in its plan.

  o In any case, the determination is attaching a 50% weighting to forward looking cost efficiency (which as we explain, we continue to consider to be ‘too high’). Consequently, even if there were an implicit allowance, whereby the level of allowed cost was higher as a result of a company assuming inflation in its plan (which we do not think occurs), the impact of this would be diluted by 50%. Furthermore, even if there were implicit allowances, companies likely made very different assumptions regarding retail inflation, and Ofwat could not, therefore, assume that any such implicit allowance was appropriately ensuring that the impact of changes in wholesale bill size over time was being accurately captured.

- In any case, as Ofwat is setting the wholesale price limits, which include indexation for CPIH, the regulator’s own method means that, by definition, inflation equivalent to CPIH is being passed through to retail within wholesale bills (net of efficiency deductions in wholesale).

It is therefore clear that the determination has no objective justification to use the ‘real’ measure of average bill size. This needs to be addressed in the FD in order to avoid setting cost allowances that are below the efficient level – which is especially crucial in relation to retail because: (i) operating margins are very thin and it would be easy for an efficient firm to become loss-making, were this mistake to persist; and (ii) because retail revenues are all ‘fast money’, the retail control plays an important role in wider financeability considerations. We think the issue needs to be resolved by reverting to the ‘nominal’ measure at the FDs. In our case, our residential retail cost allowance would be £6.4m higher over PR19, if Ofwat correctly used the nominal values.
The method of applying the efficiency challenge

Although the draft determination has already shifted somewhat on its method of applying the efficiency challenge from the initial view, we believe that more weight should still be placed on the historical efficiency levels. There are a number of reasons why we think this – which we set out as follows:

- The determination’s approach to residential retail remains inconsistent with the approach to wholesale. In wholesale, the cost assessment uses a purely historical efficiency challenge. There remains no logical rationale, or evidence, to suggest that a more ‘forward-looking’ approach is appropriate in retail.

- In its DDs, Ofwat asserted that: “the fact that the majority of companies submitted stretching forecasts that are significantly more efficient than historical expenditure is evidence of the pace at which this service is transforming.” We do not consider this provides good evidence to support a more forward-looking approach. In particular, Ofwat should be equally concerned with companies ‘over’ estimating efficiency savings as it should be with them ‘under’ estimating them – given the obvious adverse implications that arise for customers in both situations. Hence, if Ofwat wanted to objectively understand whether efficiency savings could be ‘greater’ or ‘achieved more quickly’ in relation to retail than wholesale, it should have examined data on retail and services productivity in the UK more broadly and compared this to overall UK TFP or TFP in wholesale related sectors.

- Related to the above, the determination does not appear to have considered the significant problem of ‘forecast error’, nor questioned the plausibility of certain projections relative to the past. Indeed, there are clearly significant differences between some companies’ historic and forward-looking efficiencies, which raises serious concerns regarding the reliability of the forward-looking approach. For example, on a forward-looking business plan on company’s costs are 67% more efficient than its actual, historic expenditure. The fact that the forward-looking efficiency challenge itself is around 10 percentage-points more challenging than the historic is evidence itself of the fact that the forward-looking costs may be unrealistically efficient relative to the models. It is concerning that little attention seems to have been paid to the plausibility of the data Ofwat relies upon.

- The various changes made to the residential retail models from IAP led to lower modelled costs for companies across the board (before applying the efficiency challenge). Therefore, Ofwat has, in a sense, already pushed for further efficiency in the models themselves, by applying a stringent efficiency challenge using the forward-looking approach therefore adds further challenge to an already stretching level. Therefore, we believe that more weight should be place on the historic efficiency levels.

- Furthermore, Ofwat itself stated that many companies’ business plans already exhibit stretching levels of costs, and so this should limit the need for Ofwat to impose further efficiency challenges.

Placing more weight on the historic efficiency challenge – for example 65:35 – would increase Wessex’s allowed costs to £145.47m (£2.34m more than DD). Placing 100% weight on historical efficiency would increase our allowed costs to £150.9m.

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7 ‘PR19 draft determinations: Securing cost efficiency technical appendix.’ Ofwat (July 2019)
In summary, given the inherent uncertainty and questionable plausibility of certain forecast data, we think Ofwat is continuing to place undue weight on the ‘forward-looking’ efficiency approach. As such, at the FDs Ofwat should further rebalance. Specifically, we propose Ofwat adopts a method consistent with wholesale and attaches 100% weight to the historical approach. Alternatively, Ofwat should, at the very least, further reduce the weight attached to the forward-looking approach.

**Including the net effect of RPEs and ongoing productivity efficiency**

When considering historic costs history tell us that one would expect these to increase in line with input costs less an ongoing level of productivity improvements. To the extent that the former tends to outweigh the latter, as time goes on you would expect to see companies looking less efficient in absolute terms compared to a fixed upper quartile benchmark set on historic costs.

As we state in our plan, we project that input price pressures in retail would be in line with CPIH c2% per annum, and that it would be reasonable to achieve a 0.5% productivity assumption on top of that. Given that on the historical models we perform at the upper quartile level this results in net frontier shift of +1.5% per annum.

Applying this to the historical upper quartile efficiency challenge from 0.8961 in year 1 (the base figure of 0.881 plus 1.5%) this would increase to 0.9599 by 2025. Taking an average of these two figures, would give a more accurate historical efficiency challenge of 0.9280.

Note, similarly to wholesale, in a scenario where one assumes that the economy is delivering higher productivity improvements, implying that economic growth is strong, you would also expect to see an increase in input price pressures above CPIH as demand for inputs overall increases.

**Why the change is in customers’ interests**

The changes are in the interests of our customers, because without them we will not be allowed to recover our efficient costs in providing residential retail services. This, in turn, will by definition mean: (i) we cannot provide the retail services our customers want; (ii) investment in retail will be inefficiently low, impacting future performance for our customers; and / or (iii) that the financeability of our retail business will be challenging.

More broadly, and from a forward-looking perspective, it is important to consider the long-term implications for customers arising from Ofwat’s approach to residential retail. In particular, retail businesses are characterised by: (i) slim operating margins; (ii) some significant cost categories that are, to differing degrees, outside of efficient management control; and (iii) a high proportion of staff costs. In this context, an overly ‘demanding’ regulatory approach that underestimates efficient costs will, over the long term mean: (a) innovation fails to occur; (b) retail remains inherently ‘low value’ with reduced prospects of offering enhanced service; and (c) firms pursue short-term ‘cuts’ (such as to headcount) or low value outsourcing, which are contrary to delivering efficiency in the long-term.
Links to relevant evidence already provided or elsewhere in the representation document

In an appendix to representation C21 – Frontier shift and RPEs, we provide an updated report from Economic Insight on the likely changes to input costs including in the retail price control.