



David Mitchell
Assessing base costs at PR24: Consultation response
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03 February 2022

Dear David,

Assessing Base Costs

Thank you for the opportunity to contribute to the discussion on assessing base costs.

We are supportive of Ofwat's approach to developing the assessment of base costs and the opportunity to engage through the series of workshops.

As we start to consider the implications of climate change and other future challenges, we advocate that Ofwat's framework for assessing base costs is considered alongside the asset management methodologies that reflect future standards of asset health required in the future.

A key concern for Portsmouth Water as we develop our water resource management plan is that we are going to have to change our maintenance strategy to meet the needs of the future. In the past, employing a reactive maintenance strategy reflected best value for customer as we had adequate resources and flexibility in our network to ensure continuity of service when an asset failed. With the pressure on abstraction in the South East, we see that we are going to have to move to a more proactive maintenance strategy in future. We believe this will reflect best value over the longer term, but this may require increased investment in the short term. We advocate that there is provision in the cost assessment models to take into account future requirements, and that there is provision in the PR24 methodology to make these arguments alongside the econometric modelling.

We have considered the proposed developments of the econometric models and have concerns about the inclusion of average pumping head in the wholesale water base cost model. While we recognise that this is factor worth considering in the future, we do not believe there is currently sufficient reliable data. We feel that this issue needs resolving before it can be considered a reliable metric within the model. We believe this is consistent with Ofwat and CMAs finding at PR19 and the subsequent appeals.

We also believe there is still further thinking required around cost service linkages. As an efficient high performing company, we want to ensure we can continue to improve services. While we support that this is not purely down to 'pouring concrete', there needs to be provision for investment in assets, or innovation, where improvement in controls and technology do not bridge the gap to future requirements. We would strongly recommend that if cost allowances are tied to performance commitments, that there remain strong incentives for high performing efficient companies but also provisions for companies who need to invest to improve services.

In general, we would support a more detailed review around the assessing retail costs. We believe the current model disadvantages smaller operators with low bills through the net margin based control. We advocate the retail control should increase with CPIH due to the explicit link of bad debt to revenues, and that consideration should be given to increasing innovation and investment in digital technologies to support the future.

We provide a more detailed response to the consultation in Appendix 1 below.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'C Milner', with a long horizontal flourish extending to the right.

Chris Milner
Chief Financial Officer

APPENDIX 1: ASSESSING BASE COSTS AT PR24

Response summary

- We support the PR19 approach to assessing wholesale base costs, as the starting point for PR24.
- We welcome improvements in the cost adjustment claim process, and in particular, the early publishing of any significant changes from PR19.
- We do not support the use of Average Pumping Head, for reasons set out in our response below.
- We have reservations about the cost-service relationship and in particular, that companies will be funded for an average level of service. It is also not clear if companies will be funded for a fixed level of service or an improving level of service.
- We consider that Retail costs should be indexed by CPIH, the same as for Wholesale. In particular, bad debt is automatically indexed by inflation, as it is linked to revenue. Extending indexation to Retail would also simplify the financial modelling at PR24.
- We think that the Retail costs should be further disaggregated for cost assessment.

Principles of PR24 base cost assessment

1. *Do you agree with our principles of base cost assessment?*
Yes

2. *Do you consider any important principles are missing?*
The principal of materiality is missing from the list.

Approach to wholesale base cost modelling at PR24

Scope of wholesale modelled base costs

3. *Do you consider the scope of wholesale-modelled base costs should be amended at PR24? If so, please explain how the potential amendment/s to wholesale modelled base costs can be justified based on our proposed assessment framework.*

Table 3.1: PR19 scope of wholesale modelled base costs

Wholesale water modelled base costs	Wholesale wastewater modelled base costs
Wholesale base costs	
Opex	Opex
Capital maintenance	Capital maintenance
Capex enhancement activities included in wholesale modelled base costs	
New developments	New development and growth
New connections element of new developments	Growth at sewage treatment works
Low pressure	Reduce flooding risk for properties
	Transferred private sewers and pumping stations

We do not think that overall, the scope of the wholesale-modelled base costs should be amended at PR24.

However, there is an argument for Network reinforcement costs to be modelled separately. For any company these costs can be either zero or a very large amount, depending on the capacity in the network.

Enhancement Opex should be included in the enhancement section, and not base costs.

The Ofwat proposal to test enhancement schemes against a set of reference scenarios will provide Ofwat with considerably more data to test whether schemes proposed under the resilience banner are truly an enhancement or should be considered as base.

We support separate capital maintenance funding. However, Ofwat should ensure that it properly identifies the level of overhead associated with the activity in a small WOC, and then provides an appropriate increase in the magnitude of funding relative to WASCs. Consequently, this will mitigate against the potential danger that Wastewater is disproportionately favoured in PR24 and future price reviews.

4. Would you recommend collecting additional data in relation to growth expenditure (cost and/or cost driver data) to improve cost assessment at PR24? If so, what additional data would you recommend collecting? Please provide definitions alongside suggested data additions.

On-site and off-site cost data could be collected separately, as the off-site costs are more unpredictable, and modelling them separately will be more accurate. However, this may lead to unnecessary complications in the modelling process, and there is not an obvious growth cost driver to propose.

Sample period selection

5. Do you agree that we should utilise the full historical data series available to develop the wholesale base cost models at PR24 (from 2011-12 onwards) unless there is clear justification for using a reduced time series (e.g. structural break that cannot be addressed through other remedies)?

Yes. Generally, longer datasets lead to models that are more robust. However, some cost drivers do not have accurate data available going so far back in time. We should focus on cost drivers that are derived from information that we already have, and which has already been formally reported.

For any new cost drivers proposed, from those at PR19, the robustness of historic data should be assessed. In particular, could companies interpret the data in different ways, resulting in inconsistent outputs from the models?

6. Should we consider including business plan forecasts in our wholesale base cost models at PR24?

Generally, quality of outputs comes from using historic data, whereas forecast data is more risky. Assumptions will often lead to low quality input data.

However, forecast data can be tested alongside historic data, to see if they both yield the same result. Comparing both methods can give comfort that using the forecast data is appropriate.

Forecast data will capture trends. For example, new treatment plants would not be included if only historic data were to be used. The quality programme is also constantly evolving, and those changes are not part of the historic data.

With forecast drivers, we need to consider if there is an increasing trend or an average or equal trend. This will have a big impact on the cost assessment outcomes for companies.

Overall, we support the use of forecast data, where it has been tested, and gives a more accurate outcome in terms of industry trends.

Target modelling suite

7. Do you agree with our proposed target wholesale base cost-modelling suite at PR24?

Figure 3.2: Target PR24 wholesale base cost modelling suite

High degree of cost aggregation	Medium degree of cost aggregation	Disaggregated cost model
<ul style="list-style-type: none">• Wholesale water: water resources + raw water distribution + water treatment + treated water distribution	<ul style="list-style-type: none">• Water resources plus: water resources + raw water distribution + water treatment• Wastewater network plus: sewage collection + sewage treatment	<ul style="list-style-type: none">• Treated water distribution• Sewage collection• Sewage treatment• Bioresources

Yes.

8. Do you consider it would be worthwhile attempting to develop wholesale wastewater network plus models for PR24? If so, do you propose any potential wastewater network plus cost model specifications to consider?

Not applicable to PWL

Cost drivers and explanatory variables

9. Do you think we should reconsider the inclusion of APH in the wholesale water base cost models at PR24? If so, should it be a substitute for, or additional to, booster pumping stations per length of mains?

We do not think that Ofwat should reconsider the inclusion of APH in the wholesale water base cost models at PR24. Both Ofwat, the CMA, and other water companies have identified data quality issues with the current version of APH which make the results of any model (and other analyses) that uses the current version of APH less reliable. These data quality issues need to be resolved before APH can be reconsidered for inclusion in the models (and other analyses). Resolving these data quality issues will take time and cannot be reasonably achieved before the 2021/22 APR submissions, which are due by early July 2022 and would need to be ready for internal quality assurance by end of April 2022. Therefore, APH should not be reconsidered for inclusion in the wholesale water base cost models at PR24.

However, we agree with Ofwat, the CMA, and other water companies that from an economic, operational, and engineering perspective APH appears to be a relevant cost driver of wholesale water base costs. For this reason, we strongly support improving the data quality of APH and we would be happy to collaborate with both Ofwat and the industry to achieve this aim. If we are successful in improving the data quality of APH, we expect that APH could be reconsidered for inclusion in the wholesale water base cost models at PR29.

Whether APH should be a substitute for, or additional to, booster pumping stations per length of mains (BPSLM) is an empirical question. This question can be answered only once the data quality issues identified have been fully resolved and all stakeholders deem the data quality of APH satisfactory.

In the following sections, we provide more details of the data quality issues identified, how these issues affect the modelling results, and which considerations should be made when considering whether APH should be included in the wholesale water base cost models at PR29.

Data quality issues with APH

We share the same concerns with the data quality of the current version of APH that Ofwat, the CMA, and some water companies have identified. We are particularly concerned about the following data quality issues, which should be addressed when improving the data quality of APH:

- **The large unexpected year-on-year variation in APH reported by companies.** Ofwat has identified a large degree of year-on-year variation in how the current version of APH is reported in the APR. APH is not expected to show large year-on-year variation and therefore Ofwat's findings are concerning.
- **The low confidence grade of APH as reported by water companies.** Overall, the confidence grade for APH is relatively low. For example, Ofwat has scrutinised the historical data and found that companies most commonly gave APH a confidence grade of B3 relative to A1, the highest grade, for booster pumping stations.¹ A confidence grade of B3 means a 'B' reliability, and an accuracy of between +/- 5-10%. In contrast, a confidence grade of A1 means an 'A' reliability, and an accuracy of between +/- 1%.

Implication of data quality issues with APH on modelling results

Given the data quality issues listed in the previous section, the current version of APH does not appear to be suitable for modelling. The results of any modelling that uses the current version of APH will be affected by these data quality issues, making those results less reliable. This contradicts good modelling principles, including the principles adopted by Ofwat at PR19 and the principles that Ofwat is proposing to follow at PR24 to develop robust econometric cost models.

The large year-on-year variation in the current version of APH (if it is not genuine) and the low degree of confidence grade for the current version of APH reported by the companies will introduce a measurement error in the current version of APH. If the current version of APH is included as an independent variable in an econometric model, the measurement error in the current version of APH will tend to bias its estimated coefficient and therefore the estimation of the efficiency scores, making the results of the model less reliable.

For example, it will be more difficult to assess whether the sign and magnitude of the coefficient of the current version of APH is consistent with the expected relationship between a proxy of energy requirements and costs. Comparing the statistical performance of

¹ See Ofwat's reply to responses to the provisional findings – costs and outcomes, paragraph A4.6 & Table A4.1.

https://assets.publishing.service.gov.uk/media/5fb63abbd3bf7f63e41e5e46/Ofwat_Response_to_PF_responses_-_Costs_Outcomes.pdf

alternative models against Ofwat's PR19 models² will also be more challenging, given that the statistical performance will be affected by the measurement error in the current version of APH. Similarly, comparing the efficiency scores will also be more challenging. If the efficiency scores from the alternative models differ from the efficiency scores estimated by Ofwat, it will be difficult to justify whether the difference is due to the measurement error in the current version of APH.³

The considerations above hold true even if a variable derived from the current version APH is used in an alternative model, such as APH*DI. This is because the data quality issues in the current version of APH will also affect the data quality of APH*DI. Hence, any conclusions derived from using APH*DI will also be less reliable.

Consideration about inclusion of APH in wholesale water base cost models at PR29

As mentioned above, we strongly support improving the data quality of APH and, once that has been done, reconsider it for inclusion in the wholesale water base cost models at PR29. Improving data quality of APH should involve addressing the data quality issues listed in this response as well as ensuring that the definition of APH used in the econometric model is as exogenous as possible to minimise the risk of perverse incentives. In practice, this may mean ensuring the definition of APH used uses variables which are under management control only over the long term and does not create any perverse incentive to distort operational decisions in order to influence the APH score and associated modelling result.⁴ In this section, we make some considerations on whether APH should be a substitute for or additional to BPSLM.

From an economic, operational, and engineering perspective, we agree with both the CMA, Ofwat, and other water company that both APH and BPSLM are a proxy for the energy requirement of companies, and hence are correlated with power costs. We consider that the inclusion of APH as a substitute or additional to BPSLM is an empirical question that should be investigated ahead of PR29 once the data quality of APH has improved.

First, it will be necessary to determine whether APH is a good proxy for the energy requirement of companies. For example, this could be done by estimating the correlation between APH and power costs. If APH is found to be a good proxy, it will be possible to consider whether and how APH should be included in the cost models. The inclusion of either or both variables is likely to depend on whether these two variables are highly correlated or not. If they are, then it will be possible to test the inclusion of either one or the other variable. If they are not, first it will be necessary to determine whether there is an economic, operational, or engineering rationale for this low correlation (for example, whether the two variables capture different aspect of the topographies of the companies' service areas); then it will be possible to test the inclusion of both variables and assess whether the modelling results reflect the economic, operational, and engineering rationale.

In both cases, the inclusion of APH, BPSLM or both will also depend on several other characteristics of the models that will be used at PR29, such as which other variables are

² Some of the alternative models presented by some companies have a worse statistical performance than Ofwat's PR19 model (based on the coefficient of determination R^2).

³ Some companies have presented efficiency scores from alternative econometric models. The approach followed to estimate these efficiency scores does not appear to be consistent with the approach adopted by Ofwat at PR19 as the efficiency scores are calculated over a longer period and mergers are treated differently.

⁴ Compared to BPSLM, the current version of APH may be more under management control in the short term if companies are able to alter operational decisions around network pumping; whereas booster station capacity is less affected by short-term decisions.

included and how they are correlated with APH and BPSLM, the sample size, the functional form used, and the estimation technique adopted.

10. Should we consider replacing the existing 'load treated in size band 6' variable with 'load treated in band 8 and above' in the relevant wholesale wastewater base cost models?

Not applicable to PWL

11. Please provide detailed proposals for any additional / alternative cost drivers and explanatory variables we should consider at PR24, including clearly defined data requirements that would need to be collected from companies.

Overall, we consider that a simplistic approach to wholesale cost drivers makes sense, using 5-7 drivers, which are based on information that we already have. There is a risk in using new cost drivers which are based on inaccurate historic data.

Small changes in modelling can make a big difference to the cost assessment for each company, so an early view of proposed changes is essential.

Overheads in running a WOC are disproportionately high (particularly in the face of increasing regulation, aspiration, and customer service in scale) when compared to a large WASC, and a cost driver for Scale may go some way to addressing this issue.

Model estimation method

12. Do you agree that we should maintain the use of random effects to estimate our wholesale base cost models at PR24?

We do not see any reason to change this methodology.

Model selection process

13. Do you agree with our proposed model selection process?

Given that the PR19 wholesale base cost models went through a rigorous model selection process, and were supported by the CMA, it would seem sensible to follow the same approach at PR24.

Cost adjustment claims

14. Do you agree that the cost adjustment claim process at PR24 should be separated between base (wholesale and residential retail) and enhancement claims?

Yes. Most company cost adjustment claims will relate to base expenditure. Ofwat have suggested that these will potentially have an impact (up and down) on all company cost assessments. However, not all claims will be symmetrical, and Ofwat should consider the materiality of any proposed adjustments at PR24, and if they are valid at all.

Proposed enhancement expenditure is submitted separately anyway, and is not part of the base cost modelling. All enhancement scheme costs should be assessed separately, and allowances reduced where there is an implicit amount in the base cost modelling.

There is also a concern that providing cross sector data to support the symmetrical cost adjustment claims will be an added burden to companies. Companies have finite resources, and there is also the cost of additional audits to consider.

Companies may submit counter claims where they are aware of cost claims that could have a negative impact on their cost assessment.

Owat will not want to administer a large number of cost claims, but it is important that companies are able to resubmit claims that they submitted at PR19, with the ability to use a change of evidence and not just a change in circumstances, to have these claims considered.

15. What base cost adjustment claims (wholesale and residential retail) would you consider submitting if the PR19 base cost models were used to assess efficient costs at PR24?

We would consider submitting a claim in Retail Residential, for the size of the bill.

PWL may propose a claim based on increased resilience (compliance) in its water production/abstraction facilities. Upgrading / replacing more mature IT/OT systems is a factor in ensuring technological resilience.

16. What additional cross-sector data should be collected to support the submission of the claims indicated in response to the previous question? Please describe and explain the rationale behind the additional data that you consider should be collected and provide a draft definition.

Comparing the maturity of companies, in terms of asset management, may provide useful cross-sector data for claims involving increased expenditure on resilience.

17. How can the cost adjustment claim guidance be enhanced to improve the quality of cost adjustment claim submissions?

We need clear guidance on the calculation of implicit allowances, when submitting claims. A common methodology would be useful, but with the flexibility for bespoke methods of calculation where this is not applicable.

18. Would an early cost adjustment claim submission be welcome at PR24?

Yes. This would give all companies visibility of proposed claims, and how this could affect their cost assessment. We would also welcome the opportunity to test the revised models with our own data, to assess the impact of the proposed changes.

For small companies like Portsmouth Water, some cost adjustments claims could have a significant impact on the overall cost assessment.

Capital maintenance and asset health

19. Do you agree with the different elements / approaches to introducing more of a 'forward-look' into our approach to assessing capital maintenance expenditure? Are there other elements / approaches we could consider?

There are a number of new challenges for the industry, including climate change and the expectation of net zero operations. A historic approach may not provide surety that these exogenous unknowns can be accommodated. Therefore, we would support a forward-looking approach to assessing capital maintenance expenditure.

Climate change means that resilience becomes harder and will therefore cost more.

20. Do you have any comments on the proposed long list of asset health measures in Table 5, particularly in relation to their suitability and how feasible they are to collect? Please

include any reporting or definition changes you would like us to consider and provide suggestions for other measures not included in this list.

Table 5.2: Initial list of potential additional asset health measures^{69 70}

Type of measure	Example measures Summary of pros and cons	Summary of pros and cons	Conclusion
Asset characteristics	Asset condition grade (for assets or groups of assets)	<ul style="list-style-type: none"> • Relevant but incomplete picture of asset health. Additional factors such as operating conditions and previous investment decisions are also relevant • Quantifiable but quality data lacking for some asset types. • Diagnostic - Targeted to specific asset parameter. • Some historical information available. • Transparent - Straightforward and easy to understand. 	Asset condition grade data would provide useful diagnostic information but is likely to be time consuming to collect. Suggest collecting once every price control period.
Maintenance activity	Unplanned maintenance	<ul style="list-style-type: none"> • Relevant but incomplete picture of asset health. • Quantifiable with no standardised definition in some cases but these may be similar across companies. • Diagnostic - Target maintenance activity so easier to monitor behaviour. • Historical information available from companies in some cases. • Transparent - Straightforward and easy to understand. 	We seek views on which measures can help to provide a more complete understanding of asset health in the sector. We would propose to collect the selected measures annually in a standardised way.
	Planned network rehab		
	Proactive vs reactive maintenance		
	Mean Time To Repair, Mean Time Between Failures		
	Maintenance backlog		
	Asset inspections planned vs actual		
Asset and service performance	Compliance Risk Index (CRI) (water treatment works, supply points, service reservoirs and water supply zones sub-measures)	<ul style="list-style-type: none"> • Relevant but incomplete picture of asset health. • Quantifiable and objective with common definitions and methods within the sector for most measures. • Variable diagnostic capability. For example, there may not always be a clear link between performance measures and asset health because some assets can deteriorate and still provide adequate levels of service. • Historical information available for most measures. • Variable levels of transparency. For example, index measures such as CRI may be less 	We seek views on which performance measures might be more suitable for monitoring given the criteria above. We would propose to collect selected measures annually in a standardised way.
	Properties at risk of receiving low pressure		
	Sewer blockages		
	Percentage of population equivalent, served by sewage treatment works with numeric limits, which were non-compliant with: sanitary look-up table limits or nutrient limits, urban wastewater treatment directive (UWWTD) look-up table limits or nutrient limits		

	Number of equipment failures	transparent compared to more straightforward measures such as sewer blockages.	
	Unplanned Interruptions greater than 12 hours		
	Disinfection, Reservoir or Process control Index		
Aggregated measures	Base asset health index (BAH)	<ul style="list-style-type: none"> • Relevant and can promote a leading, in-the-round view of asset health. • Quantifiable but subjective and not comparable - Variety of methodologies and gaps in data available across companies. • Diagnostic as these measures could target assets and groups of assets. • No historical information available, and likely to be challenging to produce data on a consistent basis for all companies. • Less transparent as they often combine information from multiple measures/sources and may hide poor performance. 	Transparency, comparability and objectivity issues. It is likely to be challenging to collect data on a consistent basis across companies for PR24. Potentially more of a longer-term ambition for PR29.
	Overall Equipment Effectiveness (OEE)		
	Asset risk (monetised likelihood*consequence)		

Some of these factors are quantitative and easily definable (e.g. CRI).

Some are subjective (e.g. asset condition grade, asset risk (monetised)) and some only really captured at a high level for significant items or sites (e.g. number of equipment failures).

Some (e.g. unplanned interruptions) are almost certainly captured effectively.

They require an asset management strategy and policy, targeted and recorded interventions, which may increase resilience and risk but also increase costs. Moreover, they need a reliable mechanism for data capture with increased IT and OT costs.

They may play into the Decision Support Tool though the integration or mapping challenge should not be underestimated.

They are a worthy ambition and may be grounds for a cost adjustment claim.

We support the idea of a risk matrix for the industry. Companies continually try to minimise costs, but cannot judge where they are on an industry risk matrix. This would also be a way of demonstrating that resilience issues are increasing.

There needs to be more focus on a long-term delivery strategy, whereas we currently look at 5-year timeframes. The present must be viewed in context, and companies need the ability to sustain asset health over the long term.

There needs to be way to ensure that any additional money allocated to maintenance is not spent on opex. Internal prioritisation can override price control deliverables, with companies not using the money for what it was intended. In the past, Infrastructure renewals expenditure was ring-fenced. One way would be to have an asset health index to monitor companies.

Select asset health measures that are not focussed on resilience.

Cost-service link

21. Do you agree with the high-level approach to determine 'what base buys'? Can you define any additional analysis or information that could support this process?

- To determine what base buys, we propose to:
 - evaluate if performance delivered by base should be expressed as a common performance level or a company specific performance level;
 - determine an appropriate initial baseline performance level for an efficient company in 2024-25 ('Year 0'); and
 - forecast the performance level deliverable from base for an efficient company by 2029-30 and over the longer term.
- Our key assumptions in this approach are:
 - the performance level achieved by base should be set as a common performance level, unless there is robust evidence that it should be set on a company-specific basis;
 - on average we consider that efficient companies will deliver their PR19 performance commitments;
 - efficient companies will continue to improve performance over the long term from base expenditure; and
 - we will need to review the performance level funded by base at each price review and account for changes (eg new technology).

There is a risk of funding for an 'average' level of service, at an efficient cost, whether the company is large or small. This could result in a funding gap if a company is performing badly.

Leakage – what base buys?

Is this a set level or an improvement target? Is it a steady state level of performance?

Company specific metric would buy improvement previously.

In order to support Ofwat's high-level approach to determine 'what base buys' we would like clarity over what is considered to be base costs, and what is enhancement. Within the cost assessment process, efficient water companies need to be allowed the opportunity to justify the right level of investment to achieve frontier performance and it is not clear whether the current cost assessment process allows for this.

Climate change is forecasted to have a significant effect on how water companies will operate in the future and may lead to some additional costs to maintain the same levels of service. As an example, we have traditionally been in a position of water surplus, meaning that we have more water available for abstraction than required by customers. This additional headroom has meant that some abstraction sites can be offline without loss of service to customers, and has meant we have been able to operate a reactive maintenance model in some instances.

Future sustainability reductions on chalk streams mean that we will not have the same level of headroom available in future. We will instead need to move to a proactive maintenance strategy, perhaps with upfront investment, to enhance the resilience of our assets. The result would be that we can maintain security of supply and ensure we continue to provide the same high level of service at the best value for customers.

We see the current base cost assessment process creating a barrier to moving to the best value maintenance strategy as it focuses on a theoretical efficiency frontier. We would recommend Ofwat consider and provide guidance on how companies can represent

changes in maintenance strategy to reflect higher standard of reliability required due to external factors such as climate driven factors. If the additional costs are to be included in base, we feel an acknowledgment that base cost assessments should allow for the justification of increased expenditure should be included within the high-level approach assumptions. If this is not compatible with the base costs modelling approach companies should be able to present increased investment through resilience enhancement expenditure when supported by robust asset management methodologies.

22. Do you consider it would be feasible to assess the 'efficient' baseline performance level for each company for individual PCs such as leakage and PCC through econometric modelling? Are there any other PCs where you consider this could feasibly be attempted?

This would be a very interesting comparison but very difficult to achieve because of the way different companies treat the same challenge.

Taking Ofwat's example of leakage. With some companies, leakage is a wholly externalised function, some entirely internalised and some split. In some, it is a capex function, whose cost includes recovery, in some it is an Opex function. Some year's leakage can be managed efficiently and in some, localised weather events lead to inefficiencies. Marginal functions such as R&D into leakage, or support functions like IT/GIS would need to be considered. How company costs are apportioned to leakage would play a significant part in measuring performance.

23. The need to collect further granular data to elucidate the cost-service relationship was highlighted by companies in response to our PR24 May consultation. Can you propose any data it would be proportionate to collect to support the high-level approach outlined in this chapter?

The distinction between outcomes for which base is assumed to buy a common level of performance and outcomes for which base is assumed to buy company specific levels of performance is important and can have a material impact on companies.

It is more difficult to collect data to support a common level of performance.

24. What are your views on attempting to use of a composite variable to investigate the cost-service relationship, in the context of the methodological issues and complexities we outlined?

This is presumably an attempt to reduce and simplify the PC process; however, it may remove/reduce the ability of companies to target the individual PCs according to those most beneficial or commercially effective. It may also mean a reduction in 'intra-company' accountability, with more and multiple work streams accountable for the same performance element. It hence may be appropriate to argue that consolidation occurs where there is a sensible linkage between included factors. With a reduction in bespoke PCs expected in PR24 it will allow the regulator to better facilitate the measurement of overall and relative companies' performances. There may be a need to ensure the foundations are homogenous, for example rolling in PCC with Leakage, where one company can enforce metering and one cannot, or starts from a low base, may result in skewed relative performances.

25. Do you have any proposals for how to make adjustments where a performance commitment level differs from that expected to be delivered from base costs?

Ofwat should consider a materiality threshold for these adjustments, in order to help eliminate errors. For material adjustments, this could be an adjustment to the base costs, or an enhancement cost.

Residential retail cost assessment

We welcome feedback on the cost drivers used to assess efficient residential retail costs at PR19, as well as suggestions for other cost drivers to consider at PR24

Overall, the Retail models have not had the same scrutiny as the wholesale models because they were not part of the CMA appeal. We believe that retail should be subject to the same inflation uplift each year, as Wholesale. Bad Debt is linked to revenue, which is automatically indexed up by inflation. Extending an inflation uplift to Retail would also simplify the financial modelling process at PR24 and better enable business to improve services offered to customers.

Consideration should be given to whether the current retail margin creates a barrier to innovation and investments required to meet the expectation of customers in a digital age. Currently, the lack of funding for future depreciation on a large new investment make is more difficult for companies support business case for investment in systems. This particularly penalises small companies with low bills as the net margin is aligned the to wholesale charges rather than the cost of delivering services. As a company delivering industry leading customer service, we believe the regulatory framework should create provision for scale factors in the same way as considerations are made around small company premium on debt and that if customer are willing to support investment in improved service we should be able to recover it through our retail cost allowances.

We believe that retail costs should be further divided into the following categories:

- Customer Service - this is easy to benchmark, even outside the sector.
- Meter Reading - this is distinct and driven by volume.
- Bad Debt – this is an accounting entry, based on unpaid bills. This will vary for each company depending on the policy they use. The allowance should be company specific.
- Depreciation – this should be based on a forward forecast of capital expenditure, as well as existing assets.

The weight assigned to Bad Debt should be reduced, or we should use aged debtors instead e.g. Debt > 6 months. In addition, the average bill drives the level of bad debt.

Where costs are allocated between Retail and Wholesale based on the FTE's, this will be skewed towards Retail for WOC's, which have a higher proportion of Retail FTE's compared to WASC's.

26. Do you have any comments regarding our proposal to ask companies to separate out the part of their provision of bad debt costs to do with Covid-19 that was made outside of their standard methodology in the PR24 business plan tables?

We do not have an issue with this proposal however Ofwat need to consider the utilisation of this provision to understand the impact on default rates. As most companies to continue to chase debt for longer periods than other commercial businesses it will take time to understand the full impact of covid. There also needs to be consideration that the impact of Brexit and Covid will have longer term levels of bad debt. At this stage companies are only beginning to see data following the crisis so it is too early to understand the long-term impact on customers' ability to pay.

27. What guidance would aid companies to provide appropriate data related to the provision of bad debt costs to do with Covid-19?

Guidance on common disclosures on specific covid provisions and subsequent utilisation of provisions may improve transparency.