South West Water

Peninsula House, Rydon Lane, Exeter, EX2 7HR
www.southwestwater.co.uk

15 November 2022

UKRN Cost of capital methodology consultation

By email: consultation.ukrn@caa.co.uk

Dear UKRN

CONSULTATION ON COST OF CAPITAL METHODOLOGY FOR USE IN PRICE CONTROLS

This response to the UKRN consultation on the cost of capital methodology regulators use in price controls is from the two regulated water companies that are part of Pennon, South West Water and Bristol Water. Our response has been informed both by our experience of the cost of capital issues discussed at water price reviews and Ofwat's PR24 draft methodology consultation, as well as the experience from the Competition & Markets Authority redetermination of Ofwat's PR19 final determination for Bristol Water.

We understand the object of the consultation was to reduce the potential for repeated technical discussions during successive regulator price reviews that cover the same methodological areas. We support the overall conclusion of the consultation that whilst there are areas where the guidance suggests that some consistency in approach should be taken, the decisions on the cost of capital should remain matters of sector regulator judgement based on the evidence on both market data and sector specific evidence at the time, including future investment requirements.

The consultation approach and discussion make a useful contribution to improving the consistency of regulator decisions on the cost of capital. In some recent regulator decisions there has been insufficient consideration of whether it was in long-term consumer interests for the cost of capital to reduce for what were largely narrow methodological discussions that were driving the estimates lower. For what should be long-term estimates to encourage and underpin long term investment in the sector, this would appear to be a poor methodological approach, and we welcome the UKRN findings that total market returns should not be expected to move dramatically (for instance because of changes in the risk free rate or because measurements of equity risk premium have shifted). We agree that this does not mean that the total market return or cost of capital should be static to encourage long term investment, rather that we should be careful to take a long-term perspective on its measurement.

In that context we are surprised by some of the specific conclusions within the consultation. In particular, where the CMA water reviews at PR19 considered that a particular logic should apply for that context, the UKRN review dismisses the approach. Although we understand Ofwat's perspective on the PR19 water review expressed in the draft PR24 methodology that also does not apply some of these findings, we and others have questioned this and undertaken new analysis in

support of this response. We feel this approach does not provide the consistency across regulators that this methodology consultation is seeking. We believe position should therefore be considered within the UKRN guidance.

In particular:

- On the risk free rate, the CMA approach to consider the use of AAA corporate bonds, weighting this factor with Government index-linked gilts ILGs, is dismissed in this methodology. The CMA discussion was quite clear this was a balance between the potential underestimate in basing the risk free rate on Government index-linked gilts because of the existence of factors such a convenience premium, with the potential overestimate of AAA corporate bonds because this is not totally risk-free. Whilst the UKRN consultation sets out the issues with just relying on Government ILGs, the conclusion to ignore the CMA PR19 position is not logical based on the analysis.
- On the use of a mid-point from the range of estimates on the cost of equity, the discussion in the consultation is correct in describing that sources of asymmetry in regulatory incentives should ideally be solved at source rather than moving away from a mid-point from a reasonable range of parameter estimates. In their PR19 water review, the CMA did not disagree with this principle, but concluded it was in consumer interests to challenge water companies with the asymmetric incentives but to reflect this additional risk by "aiming up" by 0.25% on the cost of equity. As the logic here matches the UKRN consultation, the principle that the CMA reached at PR19 should be similarly supported.

In response to the recent Ofwat PR24 draft methodology consultation, South West / Bristol Water along with a number of other water companies commissioned new research. This analysis has helped inform our detailed response to this consultation, which is set out in an Appendix to this letter. These consultancy reports are available on Ofwat's PR24 Future Ideas Lab web page, and we recommend that UKRN review this information in advance of finalising the guidance:

First Economics – The Risk Free Rate
OXERA – The Risk Free Rate methodology for PR24
Frontier Economics – Setting Notional Gearing
KPMG – Relative risk analysis and beta estimation for PR24
KPMG – Use of MARs as a cross-check in the context of regulatory price controls

We hope that our response is helpful and we would welcome the opportunity to discuss it further.

Yours sincerely

Iain McGuffog
Director of Strategy & Regulation

APPENDIX: RESPONSE TO SPECIFIC CONSULTATION QUESTIONS

Q1) Do you agree with the proposed recommendations

We consider the key issues in the consultation in turn:

We support recommendation 1 (continued use of a notional company) and recommendation 2 (use of CAPM as the primary approach for estimating the cost of equity) as these are regulatory principles for the overall framework, as recognised in the guidance, and have not been fundamentally questioned in regulatory determinations or CMA appeals.

Risk Free Rate (RFR)

The UKRN report suggests estimating RFR within CAPM using recent yields on index-linked gilts ILGs with a maturity matching the investment horizon for their sector. This therefore differs from the CMA PR19 water review finding to include a weighted use of returns on AAA corporate bonds.

The OXERA piece for a number of water companies found that estimating the RFR solely based on ILGs will underestimate the RFR, because of the convenience premium. Whilst AAA bonds will overestimate measurement of the RFR, it is difficult to quantify both the convenience premium in ILGs and the risk and liquidity premia in AAA corporate bond yields. The CMA PR19 approach to pragmatically average between the yields on ILGs and on AAA corporate bonds reflects that and both are equally valuable inputs. Therefore, we disagree with the UKRN guidance as it ignores this rational CMA PR19 approach, which has been confirmed by the subsequent analysis by OXERA.

As a minimum UKRN should recognise the value in considering both AAA corporate bonds and ILGs as part of a range of estimates for the RFR, rather than guidance which rules out their use in most situations, whilst retaining the principle that each regulator should reach its own conclusions based on market data at the time. There appears no good reason why AAA corporate bonds cannot be considered within this guidance. UKRN suggest that AAA bonds can be a cross-check in some circumstances, but we think the guidance would be clearer by explaining why this is the case.

We welcome that the importance of having a consistent set of parameters overall is recognised by the UKRN guidance. The First Economics paper illustrates some of the challenges in achieving this across the cost of capital metrics, and in particular that Ofwat's PR24 draft methodology approach and the suggestions of Wright & Mason that was rejected by the CMA at PR19. The First Economics paper suggests that Ofwat's suggestion of a cost of capital that is invariant to the level of gearing requires an implausibly large level of debt beta. We therefore welcome the UKRN guidance on what range for debt beta is plausible.

Equity risk premium

The guidance proposes that the equity risk premium (ERP) should be calculated as the difference between the total market return (TMR) and the risk-free rate (RFR) within the CAPM and that the TMR should be based on historical ex-post and ex ante evidence. UKRN are right to acknowledge the problems with both historical inflation series, but suggests that greater weight should be placed on the historical CPI(H) series. As both the CMA and the ONS have considered in the past, given that there are issues with both series, a weighted average would be more appropriate. We see no reason why the analysis of the CMA at PR19 should not be reflected in the guidance.

Equity beta

We agree with the recommendation to continue to de-lever and re-lever raw equity beta where there is a difference in gearing to the notional company. It is also worth adding the findings of the Frontier Economics work. It is important that the level of notional gearing reflects the regulated entity or entities i.e. the notional company's regulated gearing is a realistic estimate consistent with the measurement of equity beta. UKRN should be clear that regulators should not make notional gearing assumptions based on a priori assumptions about the future financial resilience needed for the regulated sector, if the other parameters in the cost of capital are all based on historically observed data.

Choice of point estimate on the cost of capital

We agree with UKRN that as far as possible the cost of capital should be based on a mid-point based on CAPM. However, this should not be a wide or biased range, but a narrower range that is unbiased, where normality can be demonstrated (otherwise a mid-point is technically incorrect). Whilst we agree with UKRN that diversion from a realistic mid-point should only be where there are strong reasons to do so, we consider that the reasoning of the CMA at PR19 in "aiming up" provides a good illustration of such strong reasons – where there is measurable asymmetry in regulatory incentives where it is preferable to allow this in the cost of equity estimate rather than resolving asymmetry at source. This can include because of policy to improve service levels in a sector where the cost and/or external factors such as weather variation provides additional risk to companies and their investors. The CMA at PR19 correctly tested such an issue, and concluded that there were sufficiently strong reasons to aim up in order to produce a "fair bet" – that expected returns to investors would be likely to match the allowed return without the "aiming up".

The experience of the water sector subsequent to PR19, with only 6 companies out of 17 outperforming in 2021/22 on ODIs and most of the industry overspending cost allowances is a practical example that the CMA were correct, even with the benefit of hindsight, to allow for a higher cost of equity to reflect this risk.

Cross checks on the cost of equity

We do not agree with the guidance that the Market-to-Asset-Ratio (MAR) is 'the primary example of a market cross-check that is important in regulated sectors'. The CMA recognised the limitation of MARs in the PR19 redeterminations and instead focused on both financeability and asymmetry of incentive risk as factors that should inform where to select a point estimate for the cost of capital within a reasoned range (once excluding from the range approaches that may skew the range away from a distribution of estimates that would justify a mid-point being used).

The KPMG report on the use of MARs highlight issues relating to MARs. The KPMG report helpfully includes a number of criteria for considering for determining whether a cross check on the cost of equity is appropriate - (transparent, targeted, objective, incentive compatible, consistent).

As KPMG said *"Given that there are many factors that could influence MARs, several of which are very difficult to measure (such as management quality, behavioural biases), it is not possible objectively to strip out the effects of all these other drivers and isolate the implied cost of equity with any degree of precision. This is consistent with the academic literature, which notes that market prices, or the enterprise value, of firms are endogenous and are affected by many factors that make it difficult to find a relation between valuations and transactions.*

The complexity increases further, when observing private transaction MARs, as there are additional factors that are likely to influence the MAR values in such transactions. These factors include the dynamics of a private auction set up and including winners' curse, implications of private value, management biases, and control premia and capturing a non-representative one-time snapshot that is affected by the economic situation of the specific time chosen for the transaction. In addition, private transactions could be highly confidential, and the information is not available in a timely and transparent manner.

All these factors create the complexity and uncertainty that ultimately undermines reliability of the approach based on peeling away all relevant drivers to isolate the impact of a single parameter (the allowed rate of return) on MARs."

And KPMGs empirical analysis illustrates this:

"The review of analysts' sum-of-the-parts valuations on the traded water companies, Severn Trent Group (SVT) and United Utilities (UU), since March 2021 shows a wide range of assumptions about the contribution to each company's total enterprise value from different sources, including an estimated premium to RCV, the non-regulated and retail businesses, and any pension surplus or deficit. Decomposing the average observed MAR with the range of these components indicates that the underlying regulatory MAR varies from 0.88 to 1.30 for SVT and from 0.74 to 1.18 for UU. This broad range of values provides uncertainty as to the consistency and repeatability of the underlying assumptions that are used to derive the RCV premium. There are also broad ranges for the component parts. For example, a consolidation of analysts' report derives a range of 1.01 to 1.11 and 1.00 to 1.10 for the impact of non-regulated businesses on MAR for SVT and UU respectively. This indicates that there is neither a consistent view about the total value and therefore the implied MARs that can be used as a starting point, nor are there consistent views about the decomposition of the observed MARs into constituent value drivers."

Bristol Water suggested to the CMA and also in early PR24 submissions that other cross-checks using multi-factor models would be more compatible with CAPM in understanding the relevant factors of equity values as a cross check than trying to interpret MARs. The CMA did not explore this topic in the time available, as financeability and asymmetry were more useful as cross checks – the principle on incentives that UKRN should recognise that the expected return for investors from a notional company relevant to the company being considered (ie size, industry, exposure to systemic risk and incentive risk) should match the allowed return.

With a number of other companies at Water UK we have also done further work on other cross-checks that could be applied include the potential use of Multi-Factor Models (MFM), these models are effectively an alternative to the CAPM. They are widely used in other financial contexts and have the clear of advantage of considering a wider range of factors than the CAPM, which is a single factor model. This further work by KPMG (to be available shortly through Ofwat's Future Ideas Lab website) shows an effective MFM can be developed and applied as an appropriate and robust cross-check onto the cost of capital. The report concludes that the q-model would actually have a higher explanatory power than the MAR and is therefore more relevant as a cross-check. The report also notes that MFM theories have developed and been refined since economic regulators last considered them as cross-checks in the early 2000s.

Cost of debt

We think the guidance should be clearer in a preference for using a balance sheet approach for the actual cost of debt, recognising that benchmarking against other market evidence can have a role

to play, particularly where a single company is being regulated, or there are other factors such as debt tenor suggests the other market evidence is relevant as more than just a cross check.

It is also important in order to keep the principle of a notional rather than actual company debt position valid that the notional company selected is relevant to the actual company. Examples are where the company is smaller than average and this has an impact of tranche size or tenor of debt that has a higher efficient cost for that size of company. The CMA considered this at PR19 in rejecting Ofwat's use of a "customer benefits" test for Bristol Water. The guidance should recognise that where there are adjustments for a relevant notional company, this requires regulatory judgement rather than a purely notional basis. For Bristol Water whose debt costs were lower than other similarly small water companies, a cap of allowance at the actual company costs were used to avoid penalising customers for being served by a smaller company.

Choice of notional gearing level

The UKRN guidance suggests that notional gearing should reflect the balance of risks facing the regulated company and a wide range of benchmarks, not just company actuals in a way that may be inconsistent with other WACC assumptions. This is a uncomfortable position to take as it moves away from the principles in the remainder of the cost of capital guidance, in particular for equity beta and on the embedded cost of debt, that uses actual company data.

The greatest weight should be placed on the regulatory gearing of companies in the relevant sector particularly where that sector contains a range of companies. These companies are most likely to reflect the efficient capital structure for the sector in question. The Frontier report emphasises the importance of market data including the actual observed sector gearing in setting the notional level, rating agency thresholds and competitive infrastructure benchmarks. The report also clarifies that 'gearing ratios based on enterprise value (EV) are not relevant, and regulatory gearing should be used for setting a regulatory notional company structure.

As the Frontier report concludes:

"The best way to implement the conceptual framework for notional gearing is to focus on the **market data** and empirical evidence for **regulatory gearing** to understand the reasonable range."

Q2) Do you have views on how this guidance could evolve over time, including views on potential issues for further investigation

Overall we consider that there should be a reconsideration of the expectations of both BEIS and the CMA in terms of the guidance. Whilst we do not disagree with the conclusion that there are significant benefits from retaining regulator judgements based on the data and evidence over the most of the approach to the cost of capital, this may not meet the expectations that there appeared to be for this guidance.

Beyond recommendations 1 and 2, we have significant questions as to why some of the specific methodology decisions are more definitive when they could equally be considered based on the market evidence at the time, such as whether to weight ILGs with corporate AAA bonds. Therefore further work should include considering the CMAs PR19 recommendations on these topics and directly addressing why this relevant analysis does not form part of the guidance. Engagement with the CMA and in those involved at PR19 may help to explore this further.

We also suggest that the new reports circulated with this response should be considered further for updated guidance.