



'Cabot' Created by Bex Glover

By email: [REDACTED]

1st February 2022

Dear Ofwat,

Discussion paper on risk and return

This letter and appendix sets out our views on Ofwat's PR24 risk and return discussion paper. Our overall views are inevitably influenced by the extensive discussion and scrutiny of our case to the Competition & Markets Authority (CMA) at PR19. Ultimately the CMA scrutinised the component evidence for each element of the building blocks of price controls but considered the evidence in the round. This is an important regulatory principle that should guide how we approach risk and return at PR24, whilst also considering the logic and purpose of the individual incentives and assumptions that together form the price review framework.

There are elements of the discussion paper that we welcome, including the decision not to continue to apply a customer benefits test in considering Company Specific Adjustments (CSA) to the cost of capital. We also agree that as far as possible skew in regulatory incentives should be avoided and removed at source. Looking across the recent PR24 consultations we are concerned that this is unlikely to be the case unless there is a strong cross-checking framework as part of risk and return, which is transparent as to how it will be applied in practice.

As we set out in our previous PR24 contributions, in particular the use of risk and return scenarios as suggested in Annex 5 of our [response to the PR24 Creating tomorrow together consultation](#), we suggested a scenarios framework for considering risk and return. It is important that we have a framework such as this for discussing the balance of risk and return, rather than seeing the risk and return decisions as a series of individual component incentives. Similarly, the water sector needs the PR24 consultations and methodology to focus on the trade-offs that are faced. For instance, we have proposed a [top down RoRE ODI allocation approach](#) to ODI incentives that would be easier to engage with customers on, and would make a clear and simple link to risk and return through RCV allocation. A debate on whether RoRE risk should be standardised, or ODI incentive rates which will have a range of RoRE risk, should be driven by a risk and return framework with a clear logic.

The discussion paper suggests our approach we set out in the earlier consultation response was arguing for bespoke returns for company specific issues – described in the paper as a “plan specific cost of equity”. This was not our proposal - our point was that this effectively is often the outcome of Ofwat's methodology, and we should look at a more practical definition of what a notional benchmark to guide us through balancing risk and return. We believe there are scenarios that may vary between companies, and a point that can be tested is the degree



'Cabot' Created by Bex Glover

to which **we have to recal**ibrate incentives to get a reasonable risk and return balance, alongside the choice of a point estimate of cost of equity (for a single multiple notional companies) has to be considered. Our proposal identified this incentive calibration was hard enough at PR19 where there was bespoke ODIs that could help to balance risk and return, and greater thought would be required with the PR24 methodology. We think this is consistent with better understanding of risk and risk analysis that is proposed in the discussion paper, which we welcome. Ofwat's policy implies company specific equity raising assumptions anyway from our understanding of it, which may imply bespoke returns should regulatory precedent on new equity issuance allowances be followed, if lower gearing assumptions require equity for financeability supports.

Having reviewed the consultation proposals, we think there is a way forward by companies testing the application of the Ofwat standard cost, performance and notional gearing / debt assumptions on their own circumstances. Companies would also apply risks specific to them, but would show standardised impacts of Ofwat policies, for instance showing the standardised ODI rates in terms of their actual RoRE, and performance change risks that vary depending on their starting point compared to the notional assumption. When considered across companies (the sum of company specific impact of notional assumptions), this would illustrate whether the notional assumptions were correctly calibrated for the industry, and what the impact is. For instance, if notional gearing is lower than industry actual, or if embedded debt assumptions exclude some real notional debt elements (e.g. swaps), then the impact on individual companies could be aggregated, and the overall impact of the notional assumption illustrated. This would allow distinction between company risks, and the difference between individual notional assumptions and their impact in practice. If we find only a few companies reflect the notional position, or in aggregate there is a skew, we will have a better understanding of the causes of this and whether a regulatory solution is required. This would support the explanation of why the regulatory judgements Ofwat are making, in the round, were appropriate.

It is difficult to judge the proposals without seeing the full impact across the PR24 methodology. Ofwat seem to be considering risk and return in isolation of the significant investment needs that the water sector faces in the future, that this investment is dealing with clear but uncertain risks to society from climate change, and water is competing with other sectors to attract new debt and equity capital to meet these challenges. We considered calculating financial impacts of the full impact of the potential PR24 methodology, but concluded there were too many interacting elements, and therefore have limited our analysis to a quantitative assessment shown in an annex to our response. The impact on a lower cost of equity, lower notional gearing and stronger incentives on cost and performance on risk a return has a potentially significant impact on actual financial resilience. As at PR19, we are concerned that the lack of an in the round methodology view will be interpreted by ratings agencies as an uncertainty that requires a higher threshold to meet current ratings. The paper does not consider why the cost of equity should be falling as much as Mason & Wright's



'Cabot' Created by Bex Glover

analysis implies, and why investors would be willing to provide more equity if returns are reducing because of a disputed theoretical construct in this way.

The discussion paper appears to pick between elements of the CMAs assessment from the water references at PR19 (e.g. on the balance sheet approach to the cost of debt) and Ofgem's RIIO-2 approach and CMA scrutiny. We do not think it is appropriate to be selective picking between component aspects, and the CMA's role in water references is more relevant as it looks at judgements in the round, in place of Ofwat, rather than the higher standard of showing Ofgem's judgement to be wrong in the energy appeals. The CMAs assessment at PR19 for water is therefore more informative in looking at what we can learn for risk and return as a whole.

The points we raised with the CMA at PR19, and our focus on particular totex and risk and return aspects, were recognised by the CMA as narrow. The CMA accepted our position and plan in the round, which is probably unprecedented in a *de novo* redetermination. Some elements of our case the CMA did not need to conclude on, but it can only be concluded that the issues we raised around the financeability assessment were supported even though the CMA resolved this at wource. Therefore, taking the same approach to financeability at PR24 as PR19 does not reflect the key findings of the CMA that would in our view have avoided the need for our reference to the CMA at PR19. As a whole, Ofwat do not appear to be reflecting the CMA risk and return outcome sufficiently in the PR24 methodology, whilst we respect that Ofwat should critically assess evidence afresh.

Our main concerns with the specifics of the paper are:

- Based on the limited data for 2020/21, the water service appears to continue to overspend and underperform the stretching PR19 challenges, continuing the evidence we presented from AMP6 that supported the skew in expected returns that the CMA identified. RoRE remains a powerful illustrative tool, but more consideration of how it will be used to link performance to risk at PR24 is required.
- The potential to lower gearing below a level that reflects typical industry levels, in particular without allowing for the cost of raising equity, particularly in small tranches.
- The neutering impact this assumption would then have on financeability testing.
- Proposals for notional financeability testing that do not learn the lessons from PR19, namely testing to the absolute boundaries of minimum investment grade, rather than including headroom above this, alongside assuming this can only arise and be resolved through changing timing of revenues from future periods, rather than at determination assumption source.
- An excessive focus on MAR as a CAPM cross check, alongside the inconsistent logic from Mason & Wright's analysis that sector equity beta does not vary with levels of gearing when Ofwat's main concern is that risk does vary with gearing in practice.

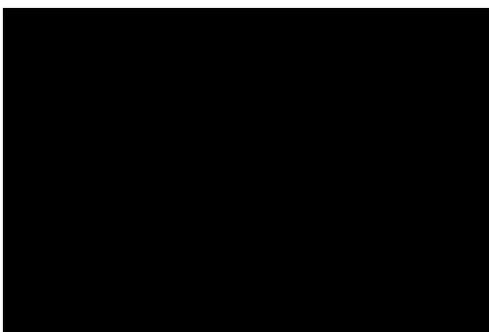


'Cabot' Created by Bex Glover

- Assuming higher index linked debt, when a) not taking swaps into account in setting the cost of debt; b) when the market appetite for CPI/CPIH linked debt remains under developed and index-linking in the sector remains predominantly RPI; and c) the adjustments to RPI by the UK statistics authority are likely to transition to 2030.
- An approach to the cost of equity which implies lower short term base returns, without considering the impact of incentive mechanisms or long-term investment.
- Lack of clarity in some areas of the paper, such as whether Ofwat were proposing anchoring gearing to its starting notional level when setting revenues/conducting financeability testing, or whether this was in response to exceptionally high investment and RCV growth (beyond the notional assumption) and would be accompanied by an equity issuance allowance in line with regulatory precedence. Some of this was clarified in the workshop, which contained helpful illustrations and discussions that added to the discussion paper.

Overall, we were unclear what is the concern Ofwat are trying to resolve in the approach – if it is financial resilience because of uncertainty surrounding necessary investment, then this needs to consider totex, outcomes and returns as a package. If it is that the quantum of investment required may vary by company, and given Ofwat discuss in the consultation about departures from notional considerations as a result of financeability testing, then we would suggest there could be explicit scenarios that consider the link as a package. Our challenge is it was not clear the logic for making judgements on notional companies that did not reflect the current average / relevant company, compared to the rationale for moving away from this assumption. In some places in the paper Ofwat state that financeability should be less of an issue than at PR19, but at the same time suggest that uncertainty about financing should result in a notional company with lower gearing than currently.

Yours faithfully,



Director of Strategy & Regulation



'Cabot' Created by Bex Glover

Response to specific comment questions

Q2.1. Do you agree with our principles for reviewing old and new reconciliation mechanisms and do you have suggestions for further reconciliation mechanisms which could be retired for PR24?

We agree with the principles that reconciliation mechanisms should be material, effective in risk allocation and have a cost benefit in terms of matching returns with risk compared to complexity. We support a transition to CPIH, which has the added benefit of removing a complex reconciliation with an RPI index which continues to show its limitations as a life-expired statistic.

Any reconciliations that are not material across the industry, or for individual companies, or even if material are not linked to factors relatively outside of management control, should be unnecessary. The key thing is the incentive package as a whole should be predictable, transparent and balanced (supporting the finance and other statutory duties).

DSRA is a case in point concerning reconciliation mechanisms. The main issue with DSRA is it is end of period revenue rather than RCV adjustment – and if it was an RCV adjustment why not just within the general totex sharing rates. These are points we made at the time of its development, late in the PR19 process, after the original PR19 methodology approach to developers did not work in practice. perhaps because it was in itself too complex?

We agree with the use of Interim Determinations, but as now should occur by exception, and where setting ex-ante uncertainty mechanisms in the FD that have better incentive and process properties is not possible. With a lower cost of equity, there is a further question about how substantial effects clauses work with their reference to the cost of debt given this consultation – it is important not to erode equity to the point that of exceptional systemic events or changes in sector obligations with customers. The substantial effects clause requires Ofwat's judgement and consideration of offsetting impacts, including investor and management behaviour in response to the circumstances. This may be something for financial resilience to consider as an approach, as there is potential for Ofwat to use this for financial resilience events, if substantial effects were considered to include financial flows outside of the regulated company.

We also agree with the position paper on cost of equity indexation. In our view TMR should be an anchor to short term movements in equity, although we agree with PWC that it is harder to measure than RFR and therefore would be difficult to index. Given therefore the marginal impact of RFR on the cost of equity, the PWC report tends to confirm our view that indexing the RFR is more complex than its small impact on a five-year cost of equity would warrant, given the uncertainties in measurement



'Cabot' Created by Bex Glover

Q2.2. Do you have any comments on our proposed approach to producing risk ranges, including but not limited to:

- a. risk ranges for the efficient notional company prepared by Ofwat; and**
- b. company-specific risk ranges produced by companies.**

The starting point for risk ranges is that there is an appropriate and relevant reference point for the efficient notional company. This can include company specific adjustments, such as for differences in geography, service levels, size and other exogenous factors largely outside of company control. If Ofwat chose to set cost targets, service levels and financing assumptions that are skewed, either individually or in combination, then the specification of the notional firm may not be appropriate.

This must be tested for company individual circumstances that explore whether the particular definition of the notional firm is used, and if not, what adjustments are appropriate. The CMA considered this for Bristol Water at PR19 and took the view that Ofwat had incorrectly specified the notional firm for the cost of debt, the service-cost relationship on leakage and in terms of the risk on ODIs affected by customer priorities (PCC) and weather impacts (mains repairs). Ofwat considered skew for the water service in terms of expected returns on ODIs, and resolved this through aiming up on the cost of equity. The CMA also considered whether a CSA on equity was required, but resolving the other issues meant it was not necessary for those circumstances, given the theoretical and practical evidence was relatively weak. We agreed with all of these considerations, as they reflected Bristol Water's position at PR19, in particular in response to the PR19 draft determination.

The CMA was particularly unconvinced by Ofwat's approach to risk ranges, in particular assuming for ODIs that P10 and P90 levels scaled with changes imposed on P50 levels. Risk ranges cannot be seen in isolation from the risks set out in business plans. We do not think there is one level of risk from exogenous factors in the industry. At PR19 it was clear that there was a different relationship between water service and cost risk (including an increasing cost trend and increasing pressure from regulation on service levels) for water from wastewater, something that the CMA subsequently reflected having seen 2019/20 data on performance and cost. This did not surprise us that companies spent more and performance incentives were more challenging where service levels were under regulatory pressure, particularly on leakage. If this was just timing of investment as Ofwat contended, then why are Ofwat concerned about financial resilience given the future investment required?

We disagree that Ofwat are best placed to set notional risk ranges without considering the risks that companies specifically face. We have suggested a scenarios process for PR24 which would encourage companies to reveal and justify a preferred risk and return balance, and in doing so this can be used to inform notional risk ranges. This would be consistent



'Cabot' Created by Bex Glover

with taking a longer term approach to outcomes and risk and return. As we have set out before, we think Ofwat should develop more than one notional risk range rather than assuming ex ante that there is a single scenario for notional risk. We think this goes beyond WoC vs WaSCs, although this is one factor which should be explored through data. However, data assessment is not sufficient replacement for reflecting a range of future uncertainties.

	Standard	High enhancement spend / environmental obligations	High maintenance spend needed	Long term: Innovative and ambitious
Finance and customer service outperformance	1.00%	1.00%	1.00%	1.00%
Min. Totex outperformance	1.50%	1.50%	3.00%	1.50%
Investment totex outperformance	0.50%	1.50%	1.00%	0.00%
Local ODIs outperformance	0.50%	0.00%	0.00%	1.00%
Resilience ODIs (e.g. supply interruptions) outperformance	0.30%	0.30%	0.00%	0.50%
Environment (e.g. leakage, PCC) outperformance	0.20%	0.20%	0.00%	0.50%
Asset health ODIs outperformance	0.00%	0.00%	0.00%	0.00%
Base return	4.00%	4.00%	4.00%	4.00%
Finance and customer service underperformance	-1.00%	-1.00%	-1.00%	-1.00%
Min. Totex underperformance	-1.50%	-0.50%	0.00%	-2.00%
Investment opex underperformance	-0.50%	-0.50%	0.00%	-0.50%
Local ODI underperformance	-0.50%	0.00%	0.00%	-1.50%
Resilience ODIs (e.g. supply interruptions) underperformance	-0.50%	-1.50%	-1.00%	-1.00%
Environment (e.g. leakage, PCC) underperformance	-1.00%	-2.00%	-2.00%	-1.00%
Asset health ODI underperformance	-1.00%	-1.00%	-3.00%	-1.00%
Upside	4.00%	4.50%	5.00%	4.50%
Downside	-6.00%	-6.50%	-7.00%	-8.00%

Company risk ranges are inevitably company specific. We believe companies should attempt to separate relevant notional company factors (which reflect their assumptions and proposals to Ofwat) and company specific factors which are assumed inside of management control (e.g. their own past financing decisions) that are necessary to demonstrate financial resilience.

The most important thing that Ofwat should recognise is expected returns. Where Ofwat assume upper quartile efficiencies or service levels, then this should be reflected in potential asymmetry in returns and reflected in the notional risk ranges. There may be other assumptions, such as the scope for frontier shift, which mitigate a downwards skew with outperformance potential. We are particularly concerned with the PR24 framework – moving away from bespoke outcomes to common measures with standardised incentives and targets will produce more downside skew.



'Cabot' Created by Bex Glover

As an example, a company at the frontier of leakage will become more vulnerable to weather impacts and exogenous leakage factors such as customer side leakage. Similar impacts also apply to supply interruptions, and the related asset health metrics such as mains repairs. Ofwat will have to consider a combination of a) higher cost allowances to reflect the higher service; b) setting a lower than historic service level to allow a more balanced scope for ODI incentives and/or c) reflecting these factors in company specific totex sharing or incentive designs. The outcome may be a) more complex to set and calibrate; b) less acceptable to customers and c) harder to interpret notional risk ranges and financeability. Our view is that Ofwat should retain the approach to company defined outcomes and incentive design wherever possible. However, if Ofwat are not minded to do this, for risk and return we will need stronger calibration, which is why we suggest setting outcome incentives for the P10:P90 levels of performance based on an allocation of RoRE, so that the incentives reflect the notional risk ranges from the methodology.

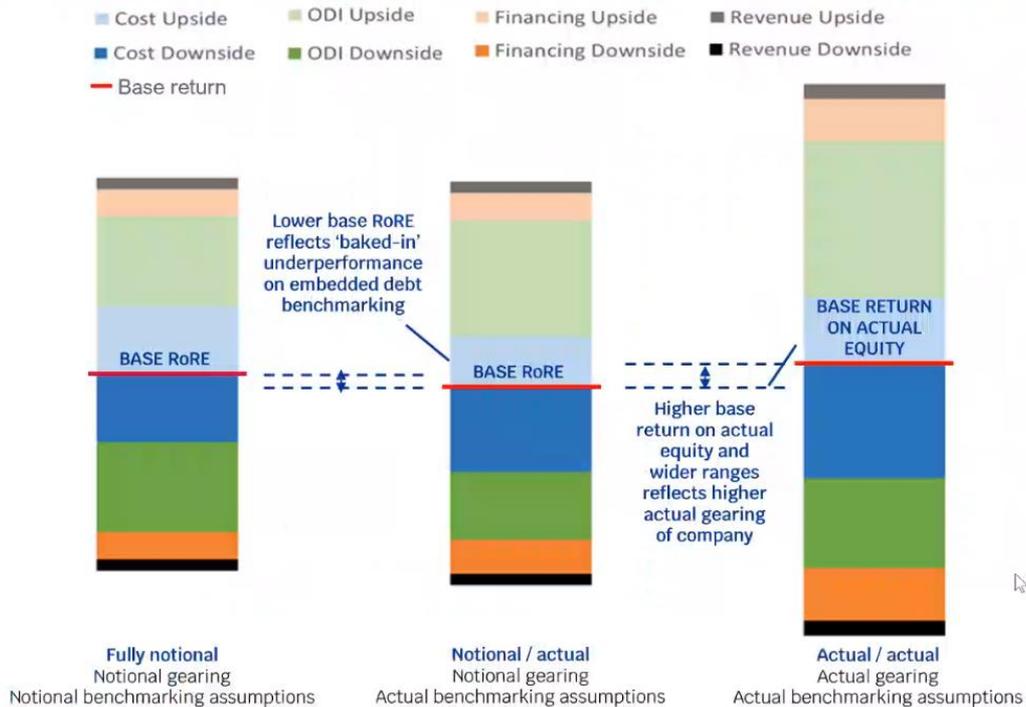
However, as the boundaries of industry performance and extrapolation from past trends is used out to the future, the more risk there may of downwards skew in returns. At some point, as the CMA found, higher base equity returns are required to compensate. In our number of responses we have illustrated why such a calibration approach will be required to avoid excessive skewed risk at PR24 on both costs and outcomes.

We believe the discussion at the risk and return workshop, with an illustration that was not in the consultation document (shown below), helped us to identify a way forward.



Illustrative risk ranges from notional and actual perspectives

Portrayal of a company that is inefficient w.r.t. embedded debt benchmarking and which is highly geared



Rather than just viewing the notional / actual RoRE as an adjustment for gearing and for what in notional terms is inefficient embedded debt, the analysis can be used to look at the determination in the round and whether, when adding up the impact on actual financing and benchmarking, applying Ofwat's notional assumptions on performance, cost and incentives to the actual company positions, do we end up with a position that aligns with the notional position, or are the notional assumptions themselves skewed? Having applied standard assumptions to the actual company starting point, if no or few companies has a base RoRE or RoRE ranges that resemble the fully notional company, then it will be difficult to argue that in the round the regulatory judgements are well balanced. For financeability testing, the sensitivity of assumptions to particular types of company can be understood.

As well as testing the application of the Ofwat standard cost, performance and notional gearing / debt assumptions on their own circumstances. Companies would also apply risks specific to them, but would show standardised impacts of Ofwat policies, for instance



'Cabot' Created by Bex Glover

showing the standardised ODI rates in terms of their actual RoRE, and performance change risks that vary depending on their starting point compared to the notional assumption. This would illustrate whether the notional assumptions were correctly calibrated to the industry, and what the impact is. For instance, if notional gearing is lower than the industry actual, or if embedded debt assumptions exclude some real notional debt elements (e.g. swaps), then the impact on individual companies could be aggregated and issues illustrated. This would allow a distinction between company risks, and the difference between individual notional assumptions and their impact in practice. If we find only a few companies reflect the notional position, or in aggregate there is a skew, we will have a better understanding of the causes of this and, whether a regulatory solution is required. This would support the explanation of why the regulatory judgements, in the round, were appropriate.

We agree that Monte Carlo analysis should consider that risks should not be considered individually and assumed to be additive. The RoRE range for ODIs of +/- 2-3% was established on the basis that ODI risks were additive, within the P10/P90 range, to avoid a downside skew on expected returns. When combining risks through Monte Carlo analysis we in practice combine factors that may be correlated (e.g. weather, supply interruptions and mains bursts, with a cost of recovery) and those where there are offsets and amplification impacts (weather and PCC can be positive or negative), and independent (water quality CRI and weather, customer experience measures). The analysis generally suggests a long tail risk of incentives skewed to the downside – this is logical given Ofwat's financial resilience concerns. If Ofwat move to set incentives on harder to address factors (e.g. greenhouse gas emissions) where the future is uncertain, such a risk could increase.

We disagree that RoRE risk ranges should only capture in-period risks. Where longer term targets are being set, as with the long-term delivery strategies, then there may need to be some consideration within RoRE. Ofwat here conflate the risk analysis and the mitigation that is chosen – a longer term risk that fell outside of in-period incentives might be subject to an interim determination mechanism, which meant that it could fall outside of the RoRE linked financeability analysis. In addition, it assumes away the risk that the notional benchmark is set persistently wrong (either too high or too low, although too low is more likely if using an upper quartile and assuming a notional distribution around the average). Identifying that trigger points and uncertainty in delivery long term outcomes implies additional investment (or incentive penalties) to get back to long-term objectives should feature in RoRE risk testing – the calibration is for delivery to customers as well as investors.

For financeability testing, adjusted interest cover ratio of 1.0x is too low, particularly considering some of the measures Ofwat are considering imposing through the financial resilience consultation. Ofwat should use consistent assumptions to reflect the headroom required in the regulatory framework e.g. the minimum level should be 1.1x for Baa3 at the point that cash lock up would be imposed, 1.25x+ if Baa2 negative is the new cash lock up assumption etc. These assumptions at notional risk ranges (cost, outcomes and financing)



'Cabot' Created by Bex Glover

should be **additive in setting** the determination. The solution should reflect the cause of the problem – if it is not timing of investment but the construct of the notional firm provides insufficient headroom, then the construct of the notional firm should be adjusted, potentially with higher returns allowed to provide adequate notional headroom. We would also note that during the CMA process for Bristol Ofwat attempted to blame the lack of headroom in the FD on past company performance, and at one point denied the 1.0x risk testing was a notional financeability assessment. To avoid this Ofwat should be clear about what the outcome of this testing will be if issues are identified.

Q3.1. How should we reflect the period affected by Covid-19 in our approach to estimating beta?

Covid-19 is just one of a number of factors that can affect beta. There are many examples of analysis during the CMA PR19 process, such as identifying statistical break points in the data, that could be used. We would urge Ofwat not to take an overly statistical approach to betas and look at the cost of equity over the long term. If asset betas change from those used previously, particularly if outside of ranges, then understanding data risks in observations should be used. Experience in the CMA process suggests that avoiding rolling analysis which may put undue weight on particular observations, towards using median data from the range of daily, weekly, monthly and two year, five year and longer time periods is likely to be the best approach. It may be that longer time frame data should carry more weight because of COVID-19.

Q3.2. Noting the impact of gearing on betas discussed in the report by Professors Mason and Wright, how should we adapt our approach to specifying beta for a company at the notional gearing?

We think that Mason & Wright move away from the basis of CAPM in their analysis, and it may be therefore of little practical application. Their preferred option proposes to hold WACC constant to gearing, effectively assuming that any leveraging difference is because $MAR > 1$ in the Enterprise Value of the observed betas. It starts with an assessment that capital structure is not left to management, including for instance the gearing expectations for Baa1 by Moody's. However, the construct of the notional firm needs to make this assumption to leave the impact of financial decisions, for price control cost of capital calculation purposes, in the hands of management and investors. If as Mason & Wright argue that observed equity betas should be used unadjusted, it implies that investors see no higher risk at higher levels of gearing. This is not consistent with Ofwat's concerns on gearing, and is also inconsistent with Mason & Wright's observation on rating agencies.



'Cabot' Created by Bex Glover

If considering adjustments to CAPM, Ofwat could consider other approaches such as Fama & French factor models – including factors such as size, value, quality, profitability and investment pattern may test some of the presumptions being made. MAR is unlikely to reveal much information, as any observation at a point of time is speculative and cause and effect is unknown. A theoretical basis for moving away from CAPM (even as a cross check) is required.

It was an important factor in the CMA NATS case was that NATS gearing was close to those of the listed comparators. The level of gearing was relatively low, and NATS is also publicly owned. The CMA NATS discussion therefore does not have a bearing on whether it is necessary to de/re leverage betas for differences in gearing from observed betas.

We note that the Enterprise Value of the listed company gearing is currently lower than the regulatory gearing, adding to the difficulty in using MARs. This therefore requires consideration in terms of the notional level of gearing, and in addition the need to de/re leverage betas to establish the appropriate equity beta.

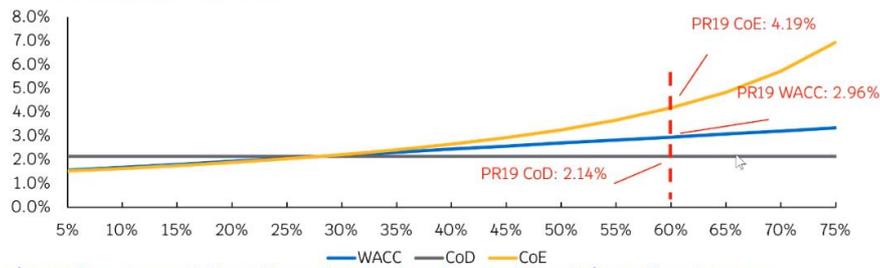
The challenge with the theoretical analysis was illustrated in the slides at the risk and return workshop. If the conclusion of the analysis is that the cost of new debt does not vary with gearing, then why are Ofwat concerned about financial resilience. The betas for the water sector, and the cost of debt being observed, reflect that water is a heavily regulated industry with long term assets. However, when market data, including at a time of negative risk free rates is used to reduce returns for the long term, there is a risk of circular logic. The CMA understood this in suggesting the use of AAA bonds because the marginal investors could not borrow at the risk free rate, and in the market time with low risk free rates the AAA bonds at least avoided the convenience premium in Government bonds. Assuming away embedded debt faced by most of the industry and then using this to reduce the equity beta does not reflect a realistic financing proposition for the water industry in the long term – rating agencies would see through this and in reality, new equity and new debt could not efficiently be raised to replace embedded debt that was raised, in structures that reflected the long term nature of the assets being invested in at the time. It implies tenors of debt should reflect the price review cycle. If we had a sudden increase in the cost of new debt (eg in a situation with persistently high inflation perhaps), would Ofwat maintain this position? The CMA considered these incentive issues in reaching its view in the water references.



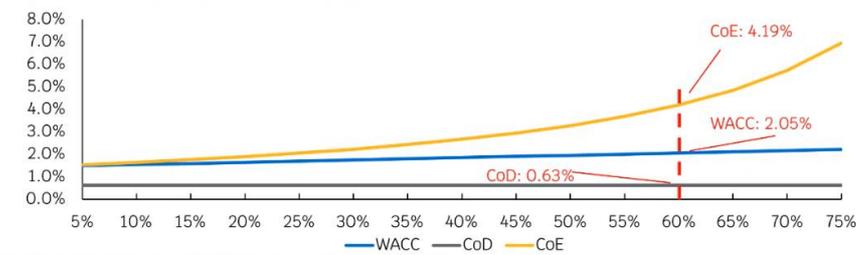
'Cabot' Created by Bex Glover

Equity beta: Notional gearing and betas

A) The WACC increases as notional gearing increases (PR19 allowed return at different notional gearing levels, including embedded debt)



B) WACC increases much less with gearing when based on new debt only (PR19 allowed return at different notional gearing levels, new debt)



Improving life through water | Gwella bywyd drwy ddŵr | 14

The risks faced by the water industry are ultimately largely driven by regulation, as water is heavily regulated, and investment is sunk for a specific purpose. There is a link between the concerns Ofwat raise in the financial resilience consultation and the risk and return consultation. On the one hand if equity betas should be lower and this reflects low equity risk from regulation, then why are Ofwat so concerned about financial resilience, which was the main focus of Mason & Wright. Equally if Ofwat take financial resilience measures that increases the risk that investors do not have the same freedom of financing as in the past, then equity beta is likely to increase for the sector. The factors are not exogenous, which also limits the use of MAR for listed companies on the necessary cost of equity for the sector as a whole.

We note, but disagree with, the comments by Professors Mason & Wright. It is precisely because the water industry does not have competitive market pressures, that we have Ofwat's cost assessment, service performance and enforcement (with fining power) measures. It is, chiefly, the regulatory efficiency pressures that targets the water industry to manage discretionary expenditure, balanced with the risk to service performance, including both reputational, financial and regulatory consequences. Inevitably some companies will perform better in these frameworks (including because comparisons are imperfect), and investors do change management to improve cost and service performance. Except where gearing is very high, it is generally short term spend that is put at risk by poor company cost and service performance (including a cost of poor quality).



'Cabot' Created by Bex Glover

██████████

The cost and performance targets themselves set by Ofwat inevitably mean that some companies may perform persistently well because of exogenous circumstances or past management decisions, whether by design or fortune, and vice versa. The question is the degree of risk and pressure the framework applies – and in our view this should in all except exceptional circumstance be left to the cost and performance targets rather than through further restrictions on companies because of financial resilience. However, this then limits adjustments to CAPM and requires financeability testing of whether equity returns, calculated from CAPM, are sufficient for individual company financial resilience. If not a matter of clear inefficiency, then a regulatory solution is required, and caution in attributing industry equity beta to technical interpretation of a small number of data points is needed.

The views of Professors Mason & Wright are potential circular – they highlight that a company's regulatory financial decisions may see a gap between the social and private costs of financial distress. However, they do not see why there may be a social cost of changing gearing approaches if this then triggers individual company financial distress, where this is different to past regulatory assumptions and is solely driven by a change in methodology. There is a social value of sufficient individual water company equity headroom that is not included in the cost or financing allowances – these are largely market driven. The social consequences of distress are included in the min. investment grade provisions. Being more specific than this requires a consideration whether the causes of financial distress (regulatory targets) are socially beneficial – a fundamental regulatory judgement. Arguably they should be considered at source rather than through additional financial distress measures – a view the CMA took in considering the Gearing Outperformance Sharing Mechanism, suggesting it wasn't relevant to the issues with the appellant companies, but could be in other case specific circumstances.

Q3.3. How should we convert RPI-linked yields into their CPIH-linked equivalents when deriving a RFR point estimate?

The key theoretical point is that we would not expect to see Total Market Returns move dramatically over time. If there are observed changes in TMR, particularly because of changes in methodological approaches, then we would question the validity of the approach and caution should be applied.

A key point to consider is that when choosing a point estimate, how the range is established for the cost of capital is important. If there is uncertainty about the range or how the high and low numbers in the range are established, over-precision on the point estimate as a mid-point may be unwarranted.



'Cabot' Created by Bex Glover

We agree that the ONS updated CPIH back series may be useful in deriving a RFR point estimate, but it should be used with caution in considering the range for the cost of capital and in establishing a point estimate. The CMA in the PR19 referrals took into account both the CPI and RPI backcast data, which we think is likely to remain a sensible approach to establishing a range for the cost of capital. We think it will be very difficult to establish forward looking market expectations for the wedge between RPI and CPIH for an uncertain convergence for RPI planned for 2030 – this also may be inconsistent with assuming more index linked debt in the notional company, or uncertainty as to what the cost of debt will be at least.

We disagree that Ofwat should ignore the CMAs use of the AAA-corporate bond index, given its strong theoretical basis when observing betas over as little as five years of data. Gilts and SONIA swap rates have a convenience yield, also recognised by the CMA RIIO-2 panel. The PR19 CMA panel position of considering both gilt rates and AAA-corporate bonds should be considered in establishing a range for the RFR.

In terms of a forward looking forecast adjustment for the RFR, this should depend on the market evidence at the time. The CMA decision at PR19 not to use forward looking rates in preference to spot rates was because *“the evidence suggests that in subsequently flat or falling markets they are likely to give an actively misleading input into any estimate.”*¹ This may not be the case at PR24, as it does not appear to be the case at the moment.

Q4.1. Do you agree with our proposed role for benchmark bond indices in cross-checking a cost of debt allowance based on a balance sheet approach?

We believe Ofwat should be guided by the balance sheet approach that the CMA took in its PR19 redeterminations. This includes considering the full cost of debt, including swaps and derivatives on all types of debt instruments. The distinction between WaSCs and large WoCs, and small WoCs, formed part of the CMAs approach and is unlikely to be controversial. As the discussion paper notes, this has benefits from simpler analysis, as the discussions on matching timing and tenor of investment to the benchmark were extensive and ultimately the CMA concluded that a balance sheet approach was a better notional construct, rather than attempting to match timing and tenor to try and identify a persistent outperformance wedge.

There will be a role for benchmark bond indices in cross-checking the cost of debt allowance, but it should not offset the assumption that the notional cost of debt should reflect the projected average cost over 2025-2030, taking into account the expiry of existing debt used in the balance sheet approach. What we would be concerned with is a cross-check that

¹ CMA (March 2021): Anglian Water Services Limited, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited price determinations; Para 9.234



'Cabot' Created by Bex Glover

excluded elements of the balance sheet debt because it did not align to the available indices used as a cross check. The CMA did not support the evidence for an outperformance wedge against indices where the balance sheet was used as a cross check, because it depended on a subset of debt instruments that were index-linked or could be compared to the index.

Q4.2. Given the persistent issuance discount of water company bonds against the iBoxxx A/BBB index, how should this be reflected in our new debt allowance-setting?

The CMA PR19 redeterminations did not find sufficient evidence of a persistent issuance discount on new debt. This may exist looking historically at a narrower comparison of bonds, but the past is not necessarily a good guide to the future. This was not clear to the CMA, and the same uncertainty may apply at PR24. Given that true-up of the new debt costs, the small impact on the overall cost of capital, and the challenges in adjusting for timing and tenor in assessing recent industry financing to a benchmark, we believe a simple assumption that new debt costs will be in line with a suitable bond benchmark would be our proposal.

We agree with Ofwat that the CMA approach to establishing the notional new to embedded debt ratio is likely to provide a good basis for PR24. This may need to vary, but exception, to notional scenarios relevant to the company concerned (e.g. water vs wastewater, WoC vs WaSCs)

Q4.3 Do you agree with our proposal to restrict company specific adjustments to reflect only factors due to small size, and to remove the benefits test?

We obviously would agree with Ofwat that the customer benefits test should not be used at PR24. Ofwat should follow the same logic as for the industry embedded cost of debt – taking a balance sheet approach for small WoC borrowing and then considering adjustments. Ofwat are incorrect to assume that timing and tenor are management decisions not linked to company size, as the evidence considered by both Ofwat and the CMA in the past include these factors as a reason why small WoCs have a higher cost of debt. For instance, Ofwat raised with the CMA issues such as the potential to pool debt with others as evidence that timing and tenor were not factors linked to size as management could avoid them, without considering that the historical debt that was pooled had a higher cost.

Ofwat will need to cross check this balance sheet information given the relatively small number of observations available for small WoCs. We would suggest that the historical



'Cabot' Created by Bex Glover

allowance for CSA of 25-40bps provides a suitable cross check on the actual data, as well as not allowing an amount greater than the WoCs own costs.

We would also note the logic in the CMAs additional allowance for liquidity issuance costs, which is equivalent to the approach taken by Ofgem. Whilst Ofwat should consider the evidence on recent WoC new debt issuance, it may be better to capture new debt costs through liquidity issuances as this clearly links to size.

Q5.1. Do you agree with the framework we have set out for determining an appropriate notional structure and PR24 and beyond?

In our view Ofwat should set notional gearing based on a level that the industry is likely to achieve. The average position for companies in the sector, or amongst the listed companies and those without securitisation that allows for higher gearing are relevant factors. These factors should be used to set a range for notional gearing, and the selection of a point estimate should reflect a level of risk within this range. We think it is unlikely that notional gearing on this basis for PR24 should be set below the 60% used at PR19.

If Ofwat do believe the risks facing the industry require more equity, then this movement of notional gearing below observed levels will need to be specifically financed. Where RCV growth exists, we agree with Ofwat that an element of this can come from retained dividends. At PR19 this could account for the 2.5% reduction in notional gearing assumed.

A further reduction at PR24, and one above 2.5% or that implied by average RCV growth, would form a regulatory assumption on the notional assumption that may require an adjustment to the cost of capital. A regulatory decision that requires or implies notional raising of equity would need to reflect the additional cost of raising equity, not necessarily captured in the component calculation of the cost of equity. This is likely to be higher for small tranches of equity and smaller companies (for instance Ofgem make an adjustment that reflects the higher cost of raising equity for companies with an RCV of c.£2bn, see Ofgem RII0-2 Final Determinations Finance Annex page 138 - cost of equity issuance allowance of 5% of funds raised, assuming an equity tranche size of £250m to £750m).

Ofwat will need to have a consistent logic for the assumption of lower gearing. If it is a systemic risk (such as the impact of climate change and weather on industry spend and incentives), then this implies a higher equity risk to be reflected in the cost of equity. Alternatively, Ofwat may find it is better to reduce the risk through calibration of incentives. The decision will depend on whether the impact of the risks and uncertainties are consistent across the industry – they may for instance differ between water and wastewater, in which case it is better to reflect through incentives rather than the cost of capital or notional gearing assumption.



'Cabot' Created by Bex Glover

██████████

We would caution against Ofwat assuming dividend yields in PR24 financial modelling on a company by company basis, as this moves away from the principles of the notional approach and may make financeability testing more challenging. This would imply that dividends are being set and allowed at PR24, rather than through company dividend policies which should use company specific dividend yield and growth assumptions. We would have less concerns in this regard if Ofwat took forward the scenarios approach we have suggested, as a way of testing when notional assumptions should vary so they remain relevant. We would accept that the PR19 approach of high growth and equity issuance funding is an example of this, but we urge Ofwat to distinguish clearly between the industry notional assumption on gearing and dividends with scenario exceptions such as this.

Q5.2. Do you agree the proportion of index-linked debt should be increased and what are your views on the composition of index-linked debt for PR24?

We do not support an increase in notional index linked debt assumptions, when combined with the other proposals Ofwat are considering. The transition from RPI to CPIH is right for water customers, but to date the market appetite for CPI/CPIH linked debt as a full replacement for existing RPI linked debt is not apparent. As Ofwat recognised in the discussion paper, the impact of CPIH to RPI linked debt may be better understood at PR29 given the UKSA planned reforms to RPI. In these circumstances there is a risk that assuming a higher proportion of index linked debt, particularly for WoCs, would mask notional financeability issues linked to the cost of debt. Therefore, Ofwat should test the sensitivity of this assumption as part of the PR24 package of assumptions, rather than assuming it at this stage.

If Ofwat do assume higher notional index linked debt assumptions, particularly in combination with lower notional gearing, then there may be a case for considering company actual financeability impacts where they are caused by the short term movement in these regulatory assumptions, where companies historically have lower index linked debt and gearing in line with previous regulatory assumptions. We would also question the logic of assuming index linking in the notional company base whilst also making no specific allowance in calculating the embedded cost of debt.

Q6.1. Do you agree with our proposed framework to evaluate the transition to CPIH indexation, and our proposal to transition fully at the start of PR24?

We agree with Ofwat's assessment and conclusions that overall support a transition from RPI to CPIH at PR24. This was our base assumption at PR19 and is an area where, given Government policy, consistency with the approach taken by Ofgem is a relevant factor.



'Cabot' Created by Bex Glover

Q7.1. Do you agree that financeability is likely to be less constrained at PR24 than at PR19?

We do not assume that financeability will be less constrained at PR24 than at PR19. Whilst the discussion paper signals a number of aspects that may indicate this outcome (such as assuming a lower level of notional gearing), and the cash flow benefit of CPIH transition may have some short term benefit, much will depend on the balance of risk and return in the regulatory framework and then views of ratings agencies and investors in light of this of what credit metrics are required for financeability. It may be the case that expensive debt will be replaced by lower cost new debt, but this could change by PR24.

Q7.2. Do you agree that real RCV growth should be funded through a combination of debt and equity such that gearing of the notional company remains consistent with the notional gearing set at the start of the control period?

Owat should not assume that dividends are limited in this way to fund RCV growth. Whilst it is appropriate to assume that where there is high RCV growth, a higher dividend yield should be assumed, this does not go so far to imply that all dividends should be retained. The assumption that new investment should be funded by debt from a notional starting point for gearing is an important construct for the notional firm, which assumes a separate embedded and new cost of debt. In the short term it is likely to be cheaper to fund investments through new debt, and the limits of this should form part of financeability testing. We are not sure that this question reflected the proposals in the paper – it was not explained other than as an assumption for resolving financeability issues when notional gearing increases, rather than as a modelling assumption for all companies.

A simple rule of thumb for testing the appropriate dividend yield we have used is to split it from the cost of equity based on the embedded debt share. So, if the embedded debt assumption was 80%, then the dividend yield would be 80% of the cost of equity. Where higher RCV growth implies a higher dividend growth assumptions / lower dividend yield, we would suggest taking the same approach.

To assume that notional gearing remains constant irrespective of the plan will make notional financeability testing rather pointless, because the impact of the new debt assumptions on overall ratios (including uncertainty on the cost of new and refinanced debt) will not be reflected. Assuming that Owat wished to assume new equity beyond our dividend yield rule of thumb, then a company specific financing cost of new equity would need to be included (which has been used as a bespoke assumption in the past, where growth causes financeability issues). As with the cost of debt, it would be unsafe for Owat to assume that the cost of new equity was going to be the same as existing notional equity, and an issuance



'Cabot' Created by Bex Glover

assumption in small tranches would be required (having used up the lower dividend yield assumption as suggested above), if Q7.2 implied a standard PR24 modelling assumption.

The discussion paper also suggests that revenue advancement could be used for financeability for reasons other than increases in notional gearing. If this is timing of investment this is the situation where revenues should be advanced for financeability based on PR19 logic. It is the situation where this is not the case that the calibration of risk and return needs to be revisited.



'Cabot' Created by Bex Glover

Annex: Illustration of risk and return, financial resilience and base cost/ performance commitments policy concerns.

We illustrate below our view on the risk and return consultation considerations, and how they may affect notional financing whilst at the same time limiting actual cash headroom to risk, whilst also strengthening the regulatory incentives that are one source of that risk. Against each policy area we describe the issue and the potential ways we have identified for mitigating this risk.

	Impact on returns and financial resilience	Impact on notional financial ratios	Impact on strength of incentives and financial resilience risks	Potential mitigation for balance of risk and return
PR24 risk and return options				
Lower notional gearing (below actual levels)	↓	↑	↑	Would need to reflect cost of raising equity, but industry resilience not supported if notional gearing assumptions are atypical, Lower gearing also implies stronger RoRE incentives. Improved notional ratios
Transition to CPIH	↑	↑	↑	Has the impact of increasing gearing, so we question the logic of lower gearing and CPIH transition
Financeability testing down to 1.0x using notional risks estimated by Ofwat	↓		↑	Should be informed by actual risks, considered as additive, leave headroom for financial resilience and reflect asymmetry (e.g. use of UQ targets, e.g. water service where average company overspent and underperformed at PR19),
Not considering skew and financeability in choice of cost of capital within range	↓		↓	Follow CMA approach / consider relevant notional scenarios
A distinction between company actual risk ranges for RoRE and notional ranges estimated by Ofwat		↑	↑	We think there is an opportunity to strengthening risk and return calibration by comparing the company specific impact of regulatory judgements on efficient cost, outcome incentives, performance levels and notional financing. Where the sum of company ranges it not aligned to the notional RoRE, this may indicate an imbalance of risk and return - and may be useful to test risk and return judgements in the round this way
Potential drop in equity beta e.g. from Mason & Wright methodology	↓	↑		A dramatic shift in sector returns because of a technical change of assumptions will need financeability cross checks. The implication of Mason & Wright that debt cost does not vary with gearing and therefore has no impact on equity risk feels inconsistent with either CAPM
Higher proportion of index linked debt assumed	↓	↑	↑	CPI linking, and would have to do this through swaps, which has the potential to create actual financeability issues. Ofgem allowed an additional cost for this matching to CPI, but this would be higher for smaller organisations.
Assuming notional gearing remains constant irrespective of investment	↓	↑	↑	This appears to go beyond assuming lower dividend yield for high RCV growth, to a modelling assumption that if applied would need to be reflected in a higher new cost of equity, reflecting incremental raising



'Cabot' Created by Bex Glover

The size of arrow indicate the relative strength of impact. Green indicates a positive impact across the sector, yellow an impact that can be mitigated or may vary, with red being a negative impact on returns or actual financial resilience.

We have also considered how the risk and return could then also be affected by the financial resilience proposals and other PR24 methodology elements.

	Impact on returns and financial resilience	Impact on notional financial ratios	Impact on strength of incentives and financial resilience risks	Potential mitigation for balance of risk and return
Financial resilience				
Higher ratings needed to avoid cash lock up provisions	↓	↓		Would need to be reflected in additional notional financial headroom and be reflected in the cost of capital. E.g. Would require financial ratios and cash flows to achieve A3
Linking ratings to service cost performance	↓		↑	Would need to be reflected in beta and additional cost of equity
Performance commitments and base cost				
A narrower set of standardised performance commitments being incentivised, alongside monitoring metrics separately enforced	↓		↑	Bespoke ODIs allowed a more balanced plan, Some of the standardised metrics (e.g. carbon) will be difficult to define. Asset health implies more penalty only skew.
Standardised ODI rates	↓		↑	Will produce a range of risk - we suggest standardising to RoRE will be simpler and consistent with notional framework
Extrapolation of past performance improvement as part of base	↓		↑	Our assessment is that extrapolating base costs and assuming performance improvements could have a neutral impact if incentives were based on average industry performance, but would test legitimacy. Basing on actual historical trends (rather than forecast performance in AMP7) would also be required. Upper quartile cost and performance targets for the water service not supported by evidence (as at the CMA)
Base cost targets include forecast costs / forecast efficiency positions	↓	↓	↑	Appears to result in a wider range of efficiency positions, and more vulnerable to risk that cost position skewed by planning, rather than actual data. Would require activity assessment on forecasts, which are hard to do. Risk of enhancement cost disjointed from base increases with forecast data. Could be mitigated with average benchmark, but greater model risks for those who appear inefficient and customer risk for companies that benefit