Draft Determination Representation: Draft Determination Representation – Finance, financial resilience, risk and return

YKY-PR24-DDR-08-Finance-risk-and-return

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1. Chapter summary

1.1 Headline messages

The performance improvements that we set out in our October 2023 business plan, and which we reaffirm in our cost efficiency and outcomes chapters (see documents YKY-PR24-DDR-02, YKY-PR24-DDR-03, YKY-PR24-DDR-04 and YKY-PR24-DDR-06) of this response, are dependent on an unprecedented programme of investment in new infrastructure. This investment, in turn, requires us to raise a significant amount of new capital from investors.

Investors can only be expected to support water companies' capital programmes if there is a prospect of earning a return that is comparable to the returns obtained currently by putting the same money in other similar investments. This is a standard tenet in economic regulation. However, the backdrop to the PR24 determinations is significantly different from previous price reviews insofar as this price review takes place shortly after there has been a very sharp increase in returns on all classes of assets following a reset of global monetary policies. In addition, investors also have to factor in the risks associated with the current negative public sentiment towards the industry. and a high level of uncertainty and unpredictability around UK water regulation.

It is critically important that Ofwat delivers a price control that is investable. Investor returns need to reflect current financial market conditions, while also representing a 'fair bet' for investors underpinned by stable and predictable regulatory policies. Attracting this investment is key to delivering the improvements that our customers want to see in the future.

The Global Infrastructure Investor Association (GIIA) released a statement shortly after the draft determination was published, stating "*In order to restore confidence in the sector, it is critical that the right balance of allowed investment, returns on equity, performance targets and incentives is found that leads to a final determination that investors and water companies can fully get behind. As GIIA has called for and as the new Government has agreed, the water sector needs a reset, leading to a long-term plan that in due course delivers on the expectations of consumers*" [1]

It is our view that the draft determination does not currently deliver against these objectives.

This view is shared by Oxera, which in its report on investability for Water UK noted "*However, if implemented as proposed, Ofwat's Draft Determinations would likely result in significant investability issues for the sector as a whole. In particular, there is a material risk that the sector is unable to raise the new equity investment required to finance the proposed investment programme for AMP8, as well as the high levels of expenditure expected over the coming decades.*"

Moody's also expressed concerns in its in-depth sector note following the draft determination: "*Ofwat's DD presents significant challenges for companies, particularly in the context of enhancement cuts and the much larger penalty exposure...The average annual sector RORE would be reduced by almost three percentage points*". As a consequence, Moody's concludes that "*Allowed returns may not be enough to attract equity support for large investment needs*"

We explain in section 3 of this chapter that the draft determination provides for an expected return that is below the allowed cost of capital. The combination of over-demanding performance targets and inadequate cost allowances means that all companies in the sector, including the industry's leading performers, should expect a return on regulatory equity that is over 3% below the allowed return.

We also show in section 3 that the allowed cost of capital is itself insufficient. This is most obviously apparent in the calibration of the cost of equity, where an allowed return of approximately 6.8% in nominal terms provides too little reward. considering the additional risks that an equity investor takes on by putting their money into a water company, rather than much

[1] https://giia.net/news/ofwat-recognises-need-step-change-uk-water-investment-do-its-plans-add

safer assets like government bonds (current return 4.5%) or investment-grade corporate bonds (current returns around 6%[2]). But it is also a feature of Ofwat's calculation of the allowed cost of debt, where the regulator's numerical analysis has not yet caught up with the newer, much higher rates of interest that companies have been paying on recent debt issues.

The final key point that we highlight in this chapter is that debt and equity providers will both look beyond the package of cost allowances, performance commitments, ODIs and returns. Investors pay attention, in particular, to the earnings and cash that a business will generate within a five-year period. In sections 3 and 4 we highlight problems that Ofwat's assessment of debt financeability presents. We then outline why Ofwat's draft determination proposals on base dividend yields, gearing caps and restrictions on the payment of dividends come together to make investing in water company equity a far less attractive proposition than it should be.

In general terms, the overarching message that this chapter brings together is that there is much more that Ofwat needs to do in order to create an attractive investment proposition to investors that will help justify why they should positively choose to put money into our industry to help deliver investment and service improvements for customers. We are looking for a much clearer overall narrative from Ofwat on this matter, coupled with external assurance that Ofwat's view of the attractiveness of companies is shared by debt and equity market participants.

If Ofwat falls short on this front, it is ultimately current and future customers that will suffer the most through delays to investment and shortfalls in promised improvements in performance.

[2] The iBoxx £ 10+year BBB index during the month of the publication of the draft determination showed a yield of 5.97

2. Aligning risk and return

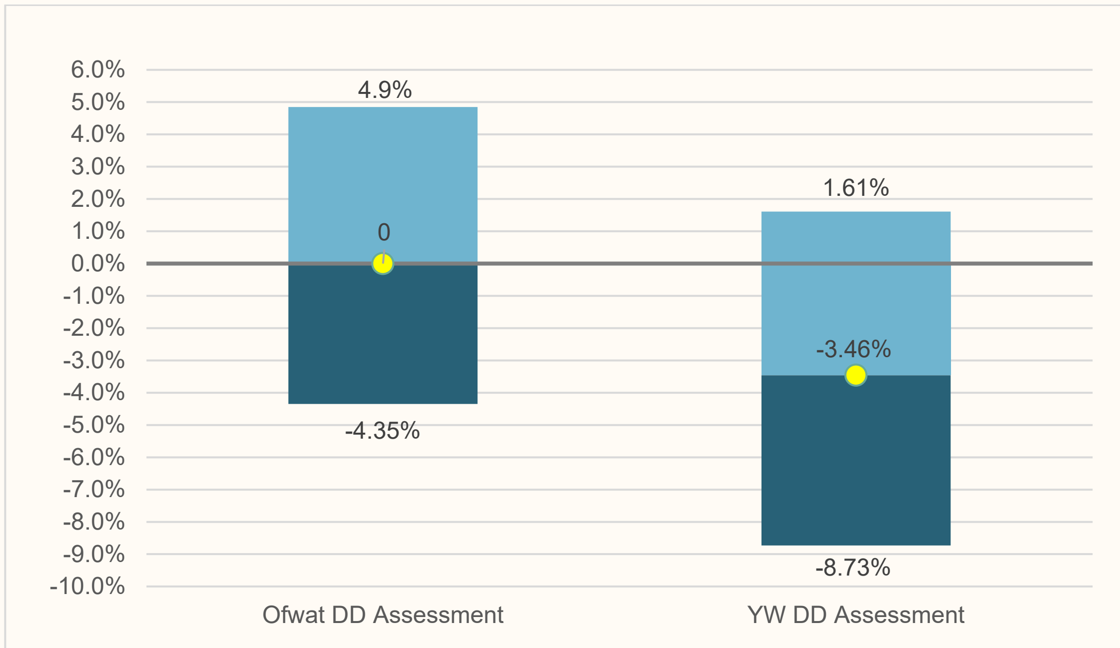
2.1 Overview of RoRE risk analysis

In this section we complete an assessment of the risk position associated with the Ofwat draft determination. We have developed an internal view, building on our approach to assessing risk in our October plan. We support this view with an analysis produced by KPMG for a consortium of companies that assesses the RoRE risk range for a notional company.

A key issue with Ofwat's analysis is its assumption that a notionally efficient company can achieve the service levels set by Ofwat at draft determination, and that cost allowances are set at a level that give an equal likelihood of over- or underspend. Our representation response chapters on both costs and outcomes (seeYKY-PR24-DDR-02 and YKY-PR24-DDR-06) set out our views on why this is not the case.

Separately, the nature of the package of incentives – i.e. PCDs and penalty-only performance commitments – naturally leads to a downside bias in risk, as we showed in our original plan. Our analysis demonstrates that these combine to produce a risk position where the expected return is significantly below Ofwat's allowed return. This contrasts with Ofwat's own analysis, which shows a symmetrical risk position around the baseline return. A symmetrical risk position will improve incentives to invest and lead to better performance levels, both of which will help deliver better outcomes for our customers.

Figure 2-1 RoRE Risk Range around the baseline return calculated as a percentage of appointee regulatory equity



Note: Ofwat's range for YW is approximate based on Figure 1 from "PR24 draft determinations: Aligning risk and return appendix"

Our representation on cost and outcomes (seeYKY-PR24-DDR-02 and YKY-PR24-DDR-06) reflect the interventions that are needed at final determination to ensure an appropriate balance of risk and return for Yorkshire Water.

In the KPMG report a similar, but alternative suite of mitigation options is suggested that could be used to ensure that the final determination risk and reward opportunities are a fair bet for the notional company. Whilst we believe that our proposals are the best way forward for YW, the fundamental point is that we believe Ofwat should take steps to ensure an appropriate balance of risk at the final determination.

2.2 Ofwat action reference

We are not responding to a specific action, but this section refers to RoRE risk analysis completed by Ofwat and set out in its Aligning Risk and Return appendices.

2.3 Key messages

Our analysis shows that the draft determinations do not provide a reasonable balance of risk and return either to Yorkshire Water, or to a notional company. Ofwat's draft determination approach to assessing RoRE risk is flawed, and the most likely outcome of the draft determination is a significant downside to the base level of return.

The changes proposed in the wider representation will return the package for Yorkshire Water to a reasonable range at final determination. Ofwat should consider all available interventions to ensure the final determination is a fair bet for the industry as a whole.

2.4 Change requested

In order to return the package to a reasonable range at final determination, Ofwat should implement the changes set out in our representations for costs and outcomes.

2.5 Yorkshire Water's response to Ofwat

In its PR24 draft determinations, Ofwat stated: "*We have calibrated the risk and return package so that equity investors in an efficient company have a reasonable prospect of earning the base allowed return",* while maintaining financial incentives to outperform cost and performance targets and penalties in case of underperformance.

We highlight in this section that, while some interventions at draft determination help protect companies against downside risk, the overall impact of the determination position presents a significantly asymmetrical risk position around the cost of equity. This is shown both through our own internal analysis and an analysis produced by KPMG for the notional company.

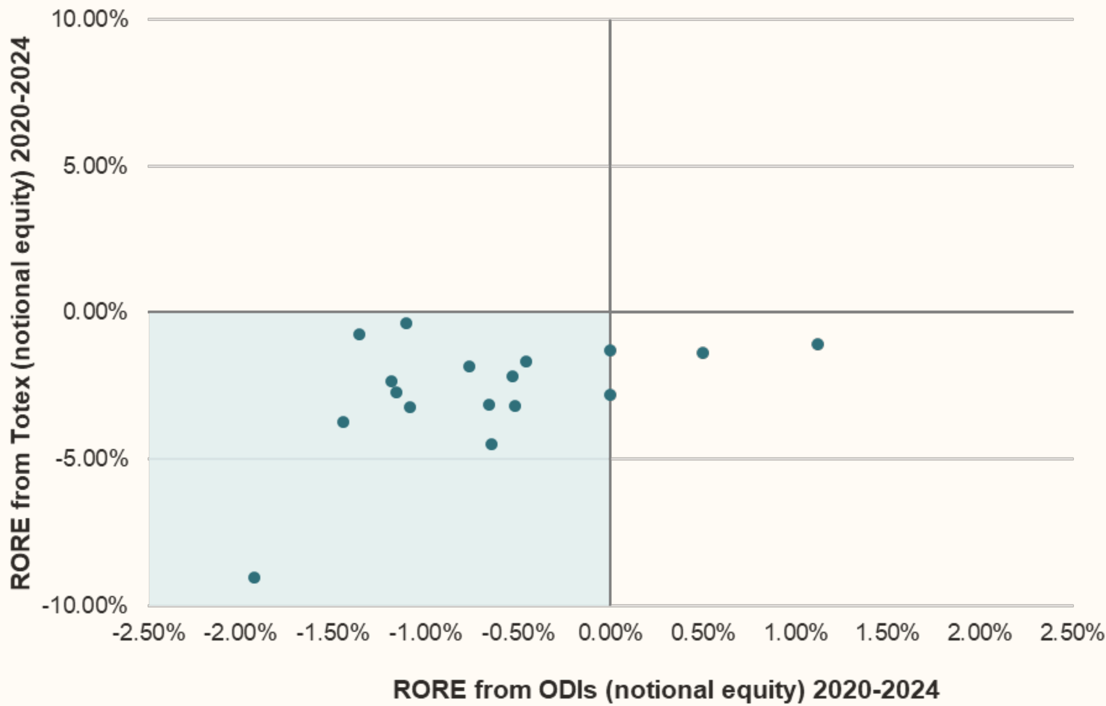
2.5.1 Ofwat's totex risk analysis

The key issue with Ofwat's totex analysis is its assumption that allowances are set at a level that give an equal likelihood of over or underspend. Our representation on the cost-outcome disconnect, and the evidence provided in our cost assessment response chapters set out why this is not the case, and how Ofwat should reassess its view of efficient cost at final determination.

The totex challenge is similarly stringent to the situation at PR19, and service challenges are more so (as Ofwat assumes PR19 was delivered). If the PR19 final determination had allowed achievable cost and service targets at PR19, we would expect companies to have generally met or surpassed cost or service targets during AMP7, given the strong incentives for companies.

The Figure 2-2 showing companies' outperformance levels on cost and service to date shows this is not the case.

Figure 2-2 RoRE performance by company – ODIs vs Totex (2020-24)



Note: companies with ODI outperformance have mainly achieved this through bespoke PCs which do not persist into AMP8.

2.5.2 Ofwat's ODI risk analysis

Ofwat recognises that there is a bias towards negative ODI payments from the outputs of their own modelling. The main reason given for this is the presence of several ODIs which are penalty-only in nature. In Figure 2-3 below, we summarise the RoRE ranges modelled by Ofwat for water and wastewater ODIs.

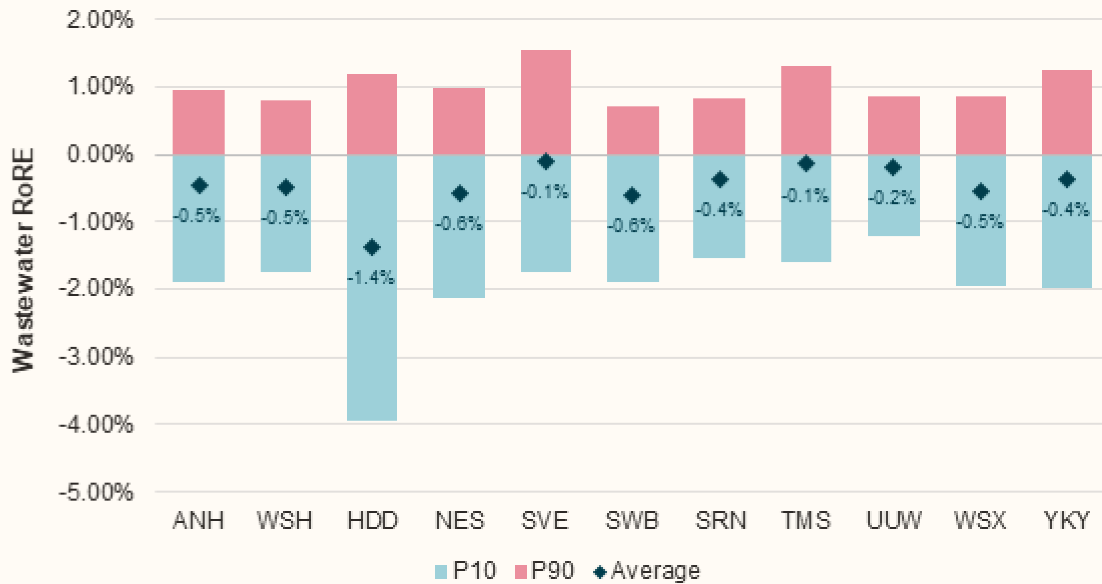
The charts show that there is negative bias across both water and wastewater RoRE. This is captured by the simple average of the P90 and P10 figures for each company (shown by the markers on each chart). For water, the average RoRE across companies is -0.2%, and for wastewater the equivalent figure is -0.5%. These are non-trivial values when considered against Ofwat's draft determination allowed cost of equity of 4.8%.

Despite this recognition, there are several reasons to believe that the true level of risk is being obscured in the figures presented by Ofwat – beyond its narrow focus on the presence of penalty-only ODIs.

As set out in the sections above, at the individual company level those who are lagging could feasibly receive an extended period of penalties. Unless companies in such positions are provided with requisite totex to establish a more equal footing, then this is a realistic prospect that investors will factor into their investability assessments.

This reality is not captured in Ofwat's modelling, which revolves around a core assumption that the PCLs for PR24 represent the most likely performance outcome for companies across the sector. In many instances this assumption is not justified - in particular where a company closes AMP7 with a significant performance gap to a PCL.

Figure 2-3 RoRE from Ofwat's 'Monte Carlo' modelling



Source: Ofwat Monte Carlo workbooks / Frontier Economics analysis
Note: Average is the simple average of the P90 and P10 RoRE outputs

There are also a number of technical reasons why the modelled RoRE figures Ofwat presents are unlikely to capture the true balance of risk. We explore these below:

a. Failure to capture the possibility of sustained underperformance on an ODI – Ofwat makes strong assumptions about company performance over time.
   i. Starting with the Monte Carlo approach, the outputs of which are captured in Figure 6 above, Ofwat is clear that its modelling of risk does not, "include correlations across time." Correlations over time are not even explored as a sensitivity. This means that out/underperformance in one year is not connected to modelling of likelihood of out/underperformance in the next year.
   ii. Ofwat's 'additive' model also makes strong assumptions about performance over time. Ofwat recognises these assumptions, setting out that the approach, "relies on assumptions about the frequency of performance percentiles." What becomes clear from the modelling is that Ofwat assumes away the possibility of sustained out/underperformance on an ODI – forcing a result which fully reverts back towards P50 levels of performance.

   In both cases, this does not reflect the reality of ODI performance observed in the sector during PR19, where companies exhibit persistence over time in terms of performance against their PCLs.

b. Subjective removal of outliers – Ofwat's analysis uses past sector performance data to generate standard deviations. These standard deviations are then a critical input to modelling normal distributions. These distributions drive the outputs of the Monte Carlo exercise that Ofwat undertakes. Importantly, Ofwat restricts the size of the standard deviations that feed into the modelling. This is done through the removal of outliers. Removing data should be done with caution, particularly when undertaking risk analysis where it is hard to objectively say that a given observation is non-repeatable. Despite the caution that is required, we find that Ofwat's justification is limited: the main point it makes is that "including outliers would lead to performance ranges and risk estimates that are unrealistic when compared to historical performance ranges." However, Ofwat does not explain what those "unrealistic" results looked like.

c. Modelling which assumes a normal distribution – Ofwat adopts an approach, which assumes a symmetric distribution is the appropriate way to capture forward-looking risk. However, Ofwat could (and should) have made alternative choices which factored in a degree of bias from the outset – this would capture the reality that regulatory targets have historically been

stretching for the sector. It would also recognise that exogenous drivers may be biased to the downside, i.e. extreme benign weather does not drive the same scale of upside performance as extreme harsh weather drives downside performance. This was not considered, even as a sensitivity, and in some examples (e.g. CRI) requires performance to be negative for the assumption to hold true.

Reflecting on all the points set out above, there is reason to suspect that the risk modelling is not fully reflective of the spread, bias and skew of PR24 ODI risk. So even though Ofwat recognises that negative bias results from its own analysis, this was based on a series of strong assumptions that restricted the range of outputs. A relaxation of some of the strong assumptions Ofwat has made would likely reveal an even greater negative bias is plausible.

In practice, investors are increasingly recognising this and adopt their own view of risk that is less restrictive, and more open to the possibility of sustained out/under-performance, as well as a recognition that PCLs are not the most likely landing zone for actual performance.

Beyond a certain point, ODI risk does start to become mitigated by the other mechanisms introduced at the draft determination. The Aggregate Sharing Mechanism (ASM) applies where RoRE associated with outcomes is more than +/-3% on an annual basis. So, at extreme levels of performance, there is a greater degree of protection available to customers and investors. But within these bounds Ofwat's analysis is understating the extent of downside risk.

2.5.3 Yorkshire Water's RoRE analysis

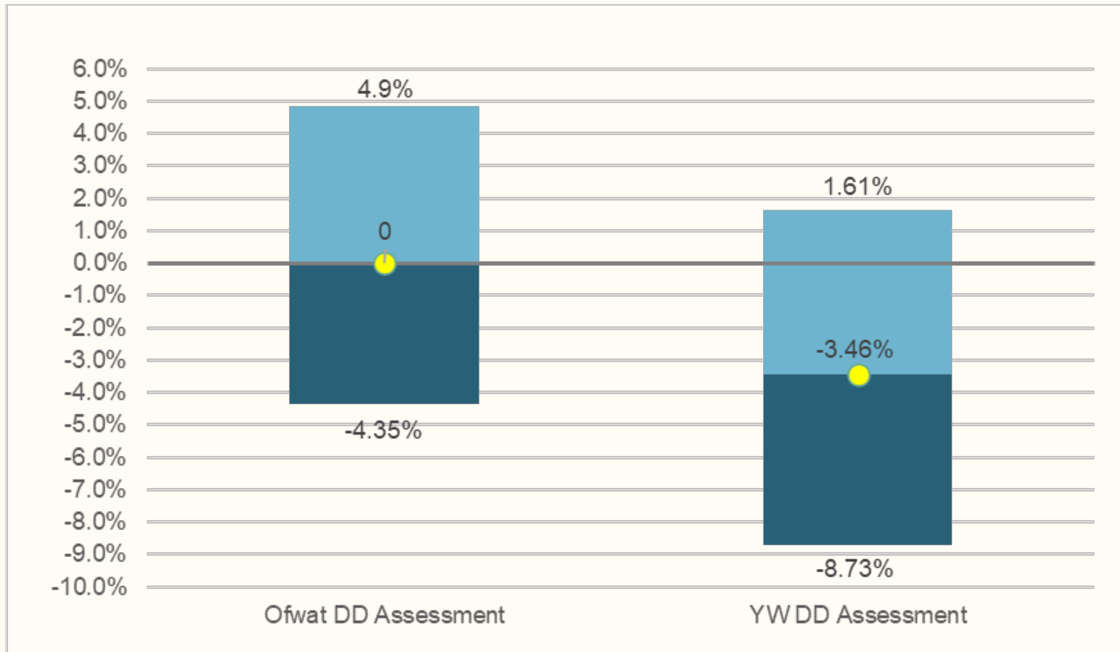
We have updated our own RoRE risk analysis to reflect the decisions made by Ofwat in its draft determination. The analysis is broadly consistent with the approach we took to assess the RoRE risk range in our October plan and to populate the RR30 data table.

We have adjusted our analysis to reflect:

- The stretch applied to PC targets and changes to the ODI incentives.
- The totex challenges applied across our programme.
- An additional year of industry data (2023-24) on performance against targets and totex allowances.
- The additional uncertainty mechanisms, enhanced cost sharing and aggregate sharing mechanisms set out in the draft determination.

Figure 2-4 below shows the variation between Ofwat's draft determination assessment of RoRE risk and ours.

Figure 2-4 RoRE Risk Range around the baseline return calculated as a percentage of appointee regulatory equity



Note: Ofwat's range for YW is approximate based on Figure 1 from "PR24 draft determinations: Aligning risk and return appendix"

Our RoRE Risk range analysis shows the most likely outcome of the draft determination is a significant downside to the base level of return (-3.46%). The graph suggests only a small downside skew around the central risk position, but this skew would be significantly higher without the downside protection mechanisms (collars, aggregate sharing for totex and ODIs) that are triggered in the P10 risk assessment.

Further detail on our approach is set out in our ADD18 data table commentary (YKY-PR24-DDR-61) but we describe it at a high level, below.

Table 2-1 Yorkshire Waters draft determination assessment by RoRE area

	P10	P50	P90
Totex	-3.80%	-2.57%	-0.48%
ODIs	-3.61%	-0.77%	0.97%
Mex	-0.66%	-0.13%	0.60%
Financing	-0.60%	0.00%	0.60%
Revenue	-0.06%	0.00%	0.00%
Total	**-8.73%**	**-3.46%**	**1.69%**

2.5.4 Totex

We have assessed the totex risk using the same approach that Ofwat used in its PR24 Final Methodology (assessing historic over/underspend against Totex allowances at an industry level) but using AMP7 industry performance as a starting point. We consider the AMP7 period the most reflective historic time –period, as Ofwat has made only minor changes to its approach to assessing totex allowances since PR19.

We have adjusted our analysis to incorporate the additional protections at the draft determinations including partial indexation, enhanced cost sharing and a totex aggregate sharing mechanism. These do help reduce some of the downside risk at the P10.

The assessment now incorporates the totex risk of price control deliverables (PCDs) based on the package proposed by Ofwat at draft determination. We have worked with our business to assess the risk of late or no-delivery against Ofwat's package. As set out in our PCD representation, we think that the approach needs amending in specific areas to become a fair bet for water companies while still protecting customers against non-delivery.

2.5.5 PCs and ODIs

We have refreshed our ODI Monte Carlo simulation model to reflect the PC targets, ODI rates and structures proposed by Ofwat at draft determination. The evidence set out in the 'Outcomes' section of our representation explains our views on where Ofwat has set overly-stretching PC targets. Based on this evidence, we have built the distributions for each PC around the targets set out in our plan which we consider to be robust and challenging targets. The analysis therefore reflects both the additional and unrealistic stretch applied by Ofwat and the in-built distribution of historic performance around targets.

The range of probability distributions has been updated using the most recent historical performance data at industry level (APR 2023-24).

We continue to use the most recent period of performance data 2020-2024 in our analysis. The length of this dataset is now improved with an extra year's worth of data. We believe this is the only period that appropriately reflects the PC incentive regime we see at PR24. In addition, prior to 2020 we have concerns over data accuracy, quality, and definitions of PCs. These have improved in recent years following convergence activity.

2.5.6 MeX

Our MeX analysis reflects Ofwat's draft decisions on the size and scale of the MeX incentives. We have kept this analysis at an industry level and have therefore assumed that the P10, P50 and P90 reflect the expected penalty and reward of the equivalent company (i.e. bottom decile, median, top decile respectively).

This leads to a symmetrical but wide range of penalty/reward for D-Mex/BR-Mex, but for C-Mex where the benchmarking is now assessed against the UKCSI, there is a negative skew as even the best performing companies in C-MeX do not achieve significant reward when compared with the UKCSI, under the new methodology.

2.5.7 Financing

Other than refreshing the analysis for latest data and proportion of new debt, our analysis of financing risk is the same as that carried out for our October plan[3].

2.5.8 Revenues

Due to the relatively lower materiality of this element of the RoRE risk, we have not completed a detailed assessment of the risk to Yorkshire Water, and have used the indicative figure in the final methodology of -0.05%.

2.5.9 Mitigations

In order to return the package to a reasonable range at final determination, Ofwat should implement the changes set out in our representations for costs and outcomes (contained YKY-PR24-DDR-02, YKY-PR24-DDR-03, YKY-PR24-DDR-04 and YKY-PR24-DDR-06). Our assumptions for these interventions are set out as follows:

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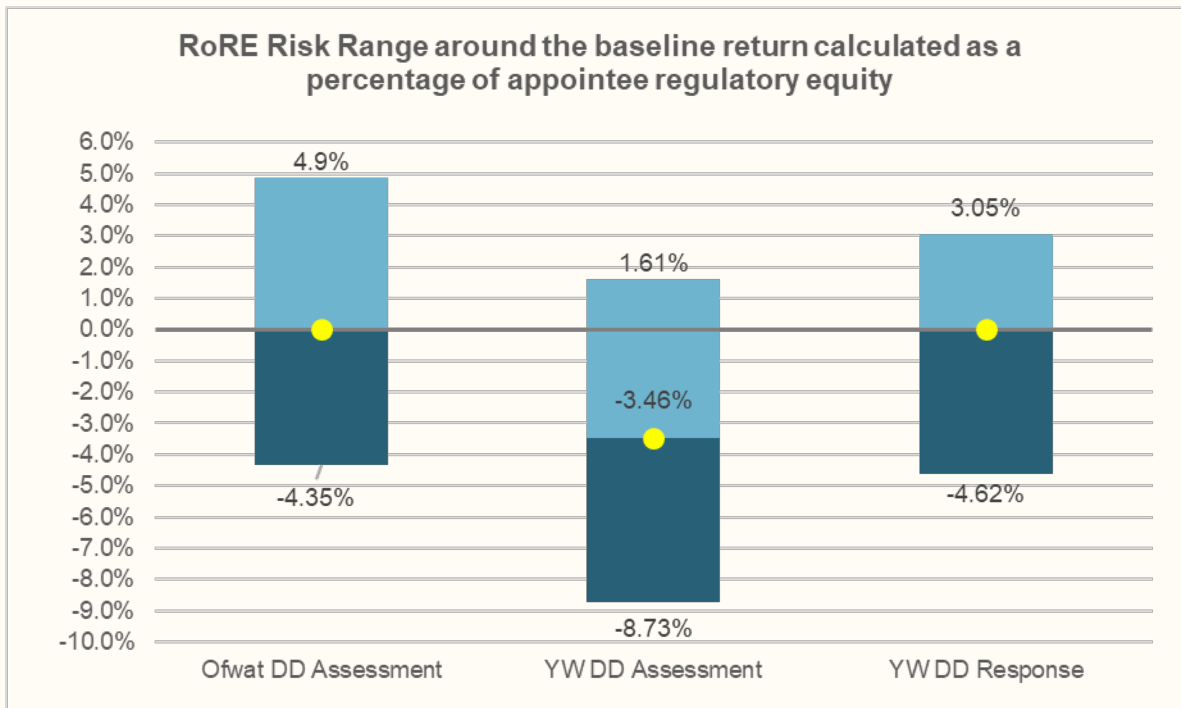
[3] https://www.yorkshirewater.com/media/epvblmik/yky55_uncertainty-mechanisms-and-rore-risk.pdf

Totex	• Changing the base and enhancement cost modelling to address the flaws set out in our response and post modelling adjustments. • Implementing further uncertainty mechanisms to protect against future regulatory uncertainty and exogenous factors. • Modifying the PCD regime so that it is not overly punitive and undeliverable.
ODIs	• Accounting for AMP7 performance when setting targets. • Recognising exogenous differences between companies. • Ensuring that PCs are protected against extreme variations by applying caps and collars to all PCs.
MeX	• Reducing the amount of RoRE at risk associated with the MeX incentives to ensure that they are not disproportionately powerful compared to the wholesale ODIs and customer priority of their outcomes. • Implementing the recommended changes to the C-MeX mechanism to reduce the downside risk of implementing a UKCSI comparison.
Financing	• No mitigations are proposed specifically to address this range.

By implementing these interventions, we assess that a final determination will be a fair bet to Yorkshire Water (albeit with an in-built downward skew due to penalty-only PCs and PCDs). A symmetrical risk position will improve incentives to invest and lead to better performance levels, both of which will help deliver better outcomes for our customers.

Figure 2-5 Visualisation of the RoRE Risk Position of our draft determination response vs Ofwat and YW draft determination assessments



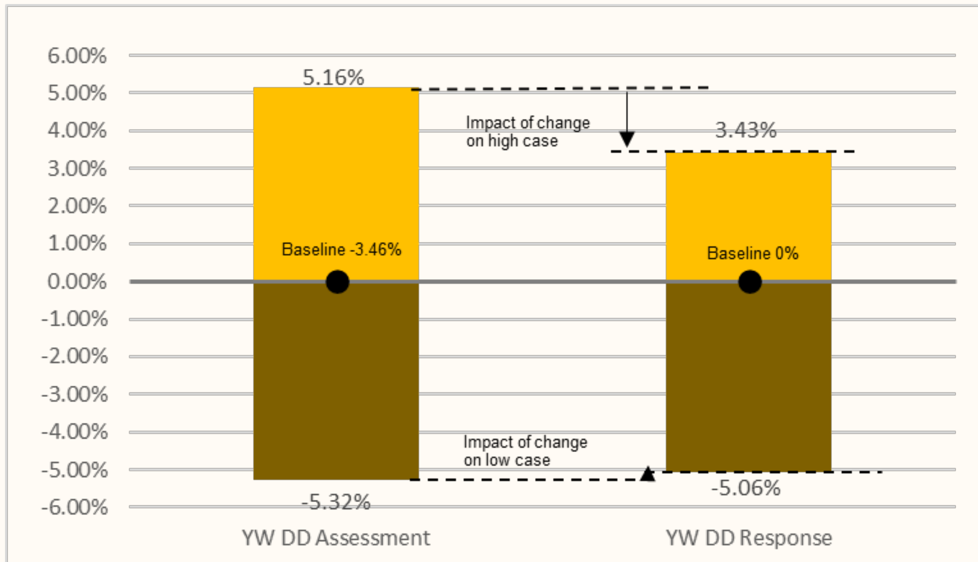
The above assessment replaces the RCV in the final column with the RCV of our draft determination response, which is higher than that of Ofwat's draft determination.

Populating ADD18

We have populated ADD18 in line with Ofwat's guidance, i.e. with P10 and P90 shown as variations from a base case. As described in this chapter, we do not believe that the draft determination provides a central estimate that allow a company to earn the cost of equity, so the ranges shown in Figure 2-6. do not align with ADD18.

Instead, ADD18 shows the variation from the baseline, as shown in the first column of Figure 2-6 below.

Figure 2-6 Visualising the data in ADD 18



We have followed the guidance further to reflect the impacts of our interventions on this baseline. We show the change to the assessment around the baseline, although note that this table is relatively meaningless if the baselines are not comparable. We also maintain the RCV associated with the draft determination assessment in this table, which is not reflective of our draft determination representation position.

2.5.10 KPMG RoRE analysis

Separately, a group of companies commissioned KPMG to complete its own analysis of RoRE. KPMG's report aims to use the available empirical evidence and historical sector performance data to assess whether the draft determination parameters and mechanisms enable the notional company to earn the base allowed return on a *median expected basis*.

We attach this report as an appendix (YKY-PR24-DDR-48).

The report finds that risk exposure to the notional company can fall into two categories, regulatory design risk and regulatory miscalibration risk. Regulatory design risk is the risk that the framework leads to an inherent negative bias (i.e. one-sided ODIs, PCDs) and regulatory miscalibration risk is the risk that the efficient notional company is not specified correctly (the overall stretch on cost and service is not achievable).

KPMG considers the regulatory framework's design and the sector performance historically to quantify these risks, and concludes that ***the notional company may be exposed to significant risk in RoRE terms with negative RoRE at P50, negative asymmetry and a negative P10 RoRE that exceeds the allowed return***. These findings mirror our own assessment of the draft determination Risk for Yorkshire Water as described in section 2.5 above.

The direct result of this risk allocation is that: (1) the notional company would not be financeable absent changes to risk allocation; (2) the notional company would not be able to offer a competitive rate of return for its given level of risk in the market; and (3) the notional company

would have material challenges in delivering the capital programme. This risk is worsened if there is regulatory miscalibration and could be materially worse, based on the simulated results.

It finds in its analysis that the top two key drivers of risks for the notional company are **ODIs and MeX incentives** and **enhancement spend** (cost allowances and PCDs)

The report moves on to discuss a suite of mitigation options that Ofwat could consider in order to close the gap between expected and allowed return. Many of these align with the interventions set out in our representations on costs, outcomes and PCDs, but changes to Ofwat's regulatory design are also proposed as mitigations. While we may not have proposed these directly in our representation, we recognise that these may be sensible alternatives to balance the overall package. KPMG concludes:

> *"Alignment of risk and return is critical not only in the success of the upcoming price control but also in addressing the major sector's challenges over the next 25 years. These challenges include improving asset health and resilience in the face of climate change and population growth, achieving net zero, delivering better environmental outcomes and ensuring that a good standard of service is provided to the people of England & Wales at a reasonable cost. Without attracting capital to finance the required investment, these improvements can't be delivered.*
>
> *In order to attract investment into the sector, debt and equity investors need to earn a reasonable return that provides fair compensation for the risks associated with their investment. It means that the base allowed return needs to reflect forward-looking risk exposure and that an efficient company needs to have a reasonable prospect of earning the base allowed return. While DDs state that this objective is achieved, statistical and probabilistic analysis based on an empirical data suggests that the notional company will fall significantly short of earning the base allowed return under the base-case."*

2.6 Rating agency views on the draft determination risk profile

Moody's published a sector note on 14 August 2024 available online here.

The key conclusions from Moody's analysis are summarised below. We consider that these should be a cause of concern to Ofwat:

- Moody's stated that if the draft framework is confirmed at final determination, it would consider revising lower its view of the regulatory framework's stability, predictability and supportiveness, which would be likely to cause a one notch downgrade – impacting not only actual company ratings, but also the calibration and headroom of notional company financeability.
- Companies are at an increased risk of incurring penalties, with Moody's estimating that the sector will incur penalties totalling £2bn across the AMP (equivalent to £400m pa across the five years) on common ODIs if they perform in line with their business plans. This is equivalent to a 0.8% negative RoRE skew (penalties would increase to a capped level of £7.5bn if performance did not improve from current levels).
- Allowed returns may not be enough to attract equity support for large investment needs, with Moody's highlighting that the implied equity premium within Ofwat's draft determination is only 1.4% versus past premiums between 2.9% and 4.5% across the 20-year period from PR04 to PR19.
- Moody's estimates that no company would be able to earn the allowed return if companies perform in line with their business plans.
- The lower cost of equity allowance for water companies (versus energy companies) implies that the overall risk should be lower in the water sector. However, the water companies in England and Wales face heightened public and political attention, and tougher performance incentives may prevent them from achieving the allowed returns. By contrast, energy networks tend to achieve a small benefit from operational outperformance.

Moody's analysis supports our own view (and that of KPMG) that while Ofwat has claimed to set an ODI incentive regime that is broadly symmetrical, this is not the outcome.

Moody's also state that they "believe no company would be able to earn the allowed return if the draft determination is confirmed and companies perform in line with their business plans". This clearly contradicts Ofwat's view of a symmetrical balance between risk and return, and we urge Ofwat to consider the amendments that we propose. These are detailed in the following sections.

2.7 Concluding points

The draft determination does not reflect a fair bet to companies. We fundamentally disagree with Ofwat's analysis that the package presented results in an achievable and symmetrical risk and reward positions for companies. Both our analysis and an external analysis of the notional company conclude that a more likely position is an extreme downside which would result in severe financial and performance difficulty for the whole sector.

Our draft determination response reflects a fair balance of risk and return for Yorkshire Water. We believe our costs are efficient, our service targets stretching and that our plan will allow us to deliver our statutory obligations to our customers and the environment.

3. The allowed return (WACC)

3.1 Headline messages

We welcome the changes made to WACC as part of Ofwat's draft determination, which result in an increased WACC of 3.72% (CPIH real), but we remain concerned that both Ofwat's proposed return on equity of 4.80% and proposed return on debt of 2.84% are too low.

In particular, the proposed cost of equity is likely insufficient to attract the necessary equity investment across the sector and is therefore not compatible with Ofwat's duty to secure that appointees are able to finance the proper carrying out of their functions.

This view is corroborated by Moody's within their recent sector update where they note that "*allowed returns may not be enough to attract equity support for large investment needs*".

In respect of cost of debt, we welcome Ofwat's commitment to update the calculation of embedded debt costs for latest views on FY24 and FY25 issuances. This step is vitally important in ensuring that the allowance does not underfund the sector, but we stress that this update must be performed using latest available data from the FY24 APR, actual issuances to date in FY25 and RR24 data tables. We are concerned that if Ofwat uses the proposed RCV growth methodology for estimating new debt issuances in FY25 it may materially understate the quantum of new debt in FY25.

We also highlight that sector credit spreads in the last 12 months have diverged materially away from historic levels. We are concerned that indexing new debt allowances to the iBoxx A/BBB indices risks materially understating the cost of new debt. This could result in significant financeability issues for the sector, which Ofwat must address through either additional risk mitigation mechanisms for the cost of debt allowance, covering both the amount and timing of funding of new debt, or the inclusion of an uplift over the chosen iBoxx reference index/indices. Failure to address this risk could further undermine investor confidence in the sector.

Ofwat's methodology results in a lower return than the CMA's methodology

Ofwat's approach to calibrating the allowed return was reviewed in detail by the CMA during the 2020-21 redetermination of Yorkshire Water's PR19 price controls. The CMA found that Ofwat's methodology was in error, most notably as regards the:

- calibration of the risk-free rate;
- chosen benchmark for historical total market returns; and
- absence of any aiming up.

For the draft determination, Ofwat has not aligned the PR24 cost of capital with the CMA's PR19 findings. As such, even though the draft determination includes aiming up, it still delivers a return on equity that is around 50bps lower than a mechanical update of the CMA's calculations would produce (see Table 3-1 below). Companies rely on regulatory certainty and predictability, and we would have expected Ofwat to have taken an approach that was more consistent with that of the CMA, which had considerable time to conclude on the appropriate approach during the PR19 redetermination.

Investors can lock in a yield of around 6% by buying investment-grade bonds

Ofwat's proposed return on equity, once converted into nominal terms, is no higher than 6.8% yet:

- The iBoxx £ 10+year BBB index during the month of the publication of the draft determination showed a yield of 5.97%; and

- Severn Trent Water and South West Water (the two 'outstanding' companies in Ofwat's QAA) also issued new bonds in July 2024, with coupons of 5.875% and 6.375% respectively.

It is not credible to think that a rational investor would consider such a small premium over the cost of borrowing to be adequate compensation for bearing the sizeable, additional risks that an investor takes by providing capital in the form of equity rather than debt.

It is also not credible for any regulator to assume that investors would be willing to put new money into a sector at a time when the returns available were below market levels on the basis that they would be confident that 'through-the-cycle' returns would be acceptable, particularly at a time when the stability and predictability of the regulatory regime is being questioned.

It is clear that Ofwat's proposed return on equity is therefore too low.

Ofwat's allowed return is lower than Ofgem's proposed allowed return

Ofgem published its RIIO-3 calculation of the cost of equity for energy networks the week after Ofwat issued its draft determination. Ofgem's estimate of the return on equity is between 25 and 80 basis points higher than Ofwat's proposed return, depending on whether one compares the mid-point of the range to mid-point of the range, or the 85th percentile to the 85th percentile.

There is no plausible reason why broadly similar regulated assets should generate such markedly different returns in current market conditions. Water companies and energy networks are regulated under the same basic five-year regulatory framework, face broadly similar risks around costs and performance, and benefit from a broadly equivalent sharing of risks with customers. Ofwat's allowed return can therefore only be regarded as punitive to water companies, despite the regulators' stated public intention to show more consistency/commonalities in their setting of returns. We would also note that Ofwat and Ofgem have committed to the UK Regulators Network agreed common approach to setting cost of capital.

This view is supported by Moody's within their recent sector update where they note: "The lower cost of equity allowance for water companies implies that the overall risk should be lower in the water sector. However, the water companies in England and Wales face heightened public and political attention, and tougher performance incentives may prevent them from achieving the allowed returns. By contrast, energy networks tend to achieve a small benefit from operational outperformance".

Table 3-1 Ofwat's PR24 draft determination calculations for cost of equity compared to other comparators

	Ofwat PR19 restated to 55% gearing	CMA PR19 restated to 55% gearing	CMA PR19 restated to 55% gearing updated for latest mkt data	Ofwat PR24 DD	Ofgem RIIO-3 55% gearing
Risk-free rate	(1.39%)	(1.34%)	1.93%	1.43%	1.18%*
TMR	6.50%	6.81%	6.81%	6.29-6.87%	6.50-7.00%
Equity beta	0.63	0.63	0.63	0.57-0.64	0.57-0.79
Aiming up	-	0.25%	0.25%	-	-
Cost of equity	3.60%	4.73%	5.28%	4.22-4.90% Point: 4.80%	4.24-5.82%
Yield on BBB bonds	<1% real	<0.5% real	4.0% real	4.0% real	4.0% real

* subject to annual indexation

We believe that in order for Ofwat's assessment of allowed returns to reflect its statutory duty to ensure that companies are financeable and investible, its assessment should be amended in the following areas:

Risk-free rate – Ofwat has departed from the CMA's methodology and has continued to use index-linked gilts as its sole proxy for the riskless assets, despite evidence from multiple sources that there is a "specialness" about index-linked government bonds. The arguments that Ofwat uses to counter these arguments contains a clear error, in that Ofwat compares the yield on alternative proxies for the risk-free rate to yields on conventional government bonds rather than the RPI-linked bonds that it is using as its preferred proxy for the risk-free rate of return. This error causes Ofwat to identify a differential of minus 3bps, instead of a differential of ~100 bps.

TMR – Ofwat has increased its estimate of the TMR by around 8 basis points on account of new historical returns/inflation data, but it fails to acknowledge that the CMA found that Ofwat's PR19 estimate was set too low, and needed to be updated accordingly. Ofwat has also ignored the step up in the current risk-free rate to above its long-term historical average. Using a constant TMR at a time of higher-for-longer interest rates is likely to result in setting the allowed return below the market cost of capital, thereby placing a material handicap on companies' ability to attract capital away from other sectors and into the water industry. As part of its recent RIIO-3 methodology, Ofgem proposed a TMR range that was above the Ofwat draft determination range. It is not good regulatory practice and not helpful for investor confidence for regulators to take different views on a generic parameter such as TMR.

Beta – Empirical estimates of beta are inherently noisy. Despite this, Ofwat has interpreted a small shift down in empirical betas between 2020 and 2022 as evidence that investors' required returns are lower than they were in PR19. This confuses statistical noise for something real and meaningful. It is not credible to consider that water companies are seen as less risky in absolute terms compared to PR19, given the headwinds that the sector has faced in recent years and the scale of upcoming investment/performance improvement work that is being called for.

For the avoidance of doubt, Ofwat's decision to aim up in the estimated range does not cure the above issues. Aiming up is warranted in its own right – specifically, as noted by the CMA and by Ofwat in its draft determination –aiming up in the presence of estimation uncertainties ensures that a regulator does not inadvertently under-estimate required returns and unwittingly cause investors to move their money away from the water industry to other sectors. This is especially important during a period when water companies need to raise fresh equity capital, rather than merely service capital already invested in the industry. In the context set out above, aiming up from a mid-point derived from erroneously low input values does not and cannot have the effect that Ofwat intends – i.e. aiming up currently compensates for outright estimation errors rather than genuinely improving the attractiveness of water company equity to incoming investment.

3.1.1 Concluding points

It is important that estimates of the cost of capital take account of detailed technical analysis about each parameter. But it is also important that regulators take a step back and consider whether the overall cost of capital they are setting can be expected to attract investors to deliver the investment and performance that will benefit our customers. We believe that in reaching its decision about the cost of capital Ofwat should place greater weight on the work of the CMA at PR19. The CMA undertook detailed work that should establish a way forward to set the cost of capital and provide more certainty for investors. We also believe that Ofwat should recognise that the difference in cost of capital with Ofgem cannot be justified given that the assets are broadly similar in the level of risk they face. Placing greater weight on these two factors and reviewing Ofwat's cost of capital against market evidence, we believe would support a materially higher cost of capital.

Our proposed estimate of the cost of capital is 4.15% to 4.85%. The following sections go into further detail on the individual elements of cost of equity and cost of debt and set out the specific corrections that we are asking Ofwat to make.

Table 3-2: Yorkshire Water's proposed WACC range for PR24

WACC range	Low	High
Cost of equity	5.29%	6.48%
Cost of debt	3.22%	3.51%
Gearing	55%	55%
Appointee WACC	**4.15%**	**4.85%**

The lower end of our cost of equity range is broadly consistent with a roll forward of the CMA PR19 decision (see Table 3-1). The upper end of the Table 32 range corresponds to the upper bound identified in the KPMG report (YKY-PR24-DDR-49) and takes explicit account of higher-for-longer interest rates and changes in the sector's risk profile.

Our range for the cost of debt allows for the required update of Ofwat's draft determination calculations to capture data from 2023/24 and 2024/25, and recognises the degree of uncertainty that currently exists about future sector-wide borrowing.

3.2 Cost of equity

3.2.1 Overview

Along with a group of other water companies, we commissioned KPMG to undertake an independent review of Ofwat's draft determination cost of equity estimate. KPMG's report is included with this response as (YKY-PR24-DDR-49)

KPMG estimates that an appropriate cost of equity over the period 2025-30 would be in the range 4.97% to 6.48%.

In order to achieve this, Ofwat should update its cost of equity proposal at final determination, in particular for the following items:

- Include a wider basket of proxies for the risk-free rate;
- Factor in an expected Total Market Return (TMR) that is compatible with today's higher-for-longer interest rate outlook; and
- Incorporate a beta that is compatible with Ofgem's RIIO-3 beta for the energy networks.

3.2.2 Risk-free rate (RFR)

Ofwat's explanation of its estimate of the risk-free rate is organised around the question of whether there is a 'convenience yield' that causes the return on index-linked gilts to be lower than the true CAPM risk-free rate. This is an important topic, but it is more helpful to frame the question in slightly different terms. The overarching issue is: should Ofwat have just one preferred proxy for the risk-free rate of return, or should it use a basket of measures so as to guard against possible estimation error?

In Figure 3 of its allowed return on capital appendix, Ofwat claims that all of the candidate measures of the risk-free rate are currently pointing to the same CPIH real figure. However, it is noticeable that Ofwat's calculation methodology deflates the yields on nominal gilts and AAA non-government bonds using a swap-based measure of CPI inflation. This contrasts to the approach that Ofwat uses elsewhere in the draft determination of using OBR inflation forecasts wherever possible. A more standard nominal-real conversion puts the yield on these proxies for the risk-free rate at about 2.5% CPIH real, which is about one percentage point higher than the reading that Ofwat obtains from index-linked gilts.

In a situation in which different proxies for the riskless asset are generating different readings of the risk-free rate, Ofwat should be cautious before concluding that one reading is 'right' and all other readings are 'wrong'. Although Ofwat acknowledges that it does not have a "definitive explanation of yield curve dynamics", no further steps are taken. This needs to be rectified to mitigate against possible error.

The report from KPMG identifies both theoretical and empirical evidence that long-dated index-linked gilts have a 'specialness'. As a consequence, KPMG recommends a range for the risk-free rate that is up to 67 basis points above index-linked gilt yields. The point estimate of 41 basis points is broadly in line with the adjustment that the CMA used in its redetermination of Yorkshire Water's PR19 price controls.

Given this evidence, our view remains that Ofwat should recognise that there is a range of admissible estimates for the risk-free rate. This could entail adding an uplift to index-linked gilt yields. Or it could entail constructing a basket of proxies for the riskless asset, potentially including: index-linked gilts; nominal gilts; and AAA non-government bonds.

KPMG propose that the risk-free rate, based on data as at June 2024, is 1.96%, compared to 1.43% used in Ofwat's draft determination point estimate before aiming up.

Total market return (TMR)

The draft determination similarly fails properly to tackle head-on the big issue as regards the TMR. Ofwat's work during PR24 has focused exclusively on refining previous estimates of historical stock market returns, but does not appear to have considered in any sufficiently detail how setting the TMR in line with historical averages will be likely to handicap companies at a time when interest rates are expected to be 'higher for longer'.

We are submitting a report from Frontier Economics as part of this response which analyses how regulators responded to falling interest rates between 2008 and 2021, Additional Considerations for the PR24 Allowed Return on Equity (YKY-PR24-DDR-55). Frontier Economics identifies that there was a discernible reduction in TMR estimates across the UK's regulated sectors during this period. This is especially apparent in Ofwat's figures, which fell from 7.4% RPI real in PR09 to 6.5% CPIH real in PR19 – i.e. a reduction of around two percentage points.

Yields on long-dated gilts and corporate bonds have increased by around four percentage points since 2021, and currently sit roughly in line with the level of interest rates that were seen prior to the 2008 global financial crisis. It stands to reason that there should, as a result, be a discernible move upwards in Ofwat's PR24 TMR estimate, to mirror the response that it made to changing market conditions in previous reviews.

There is no such move in Ofwat's draft determination. Instead, Ofwat sticks more or less to its PR19 TMR, save for a small update to its preferred range to take account of the latest data on historical returns and inflation. This constitutes a departure from the UKRN cost of capital guidance, which made it clear that the application of a consistent approach to the TMR across successive reviews "does not imply that regulators should simply pick the same fixed value for the TMR in each decision for all time, but that the TMR would be relatively less variable than the underlying RFR".

Ofwat's approach to TMR seems to us to be more akin to 'fixed (at the lowest point in the cycle)' and this will likely cause problems for companies that are looking to raise new equity to finance investment. Investors are seeing competing investments, including other infrastructure assets and other regulated assets, offer historically attractive rates of return. When they consider the water sector they will see returns that are weighed down by a deliberate and conscious misalignment of returns to current market conditions.

As we noted at the start of this section, Ofwat should be concerned that the lack of incentive opportunities in the draft determination may discourage investors from investing further in water companies, when the baseline rate of return of 6.8% is broadly similar to other investment opportunities with inherently less risk.

As such, we urge Ofwat to construct a final determination that is more in tune with current market conditions. This could be achieved by providing directly for a higher TMR, as suggested by Frontier Economics. Or it could be achieved through aiming up, as suggested by KPMG.

The KPMG report derives a range for TMR of 6.75% to 6.93% CPIH-real, with a mid-point of 6.84% CPIH-real.

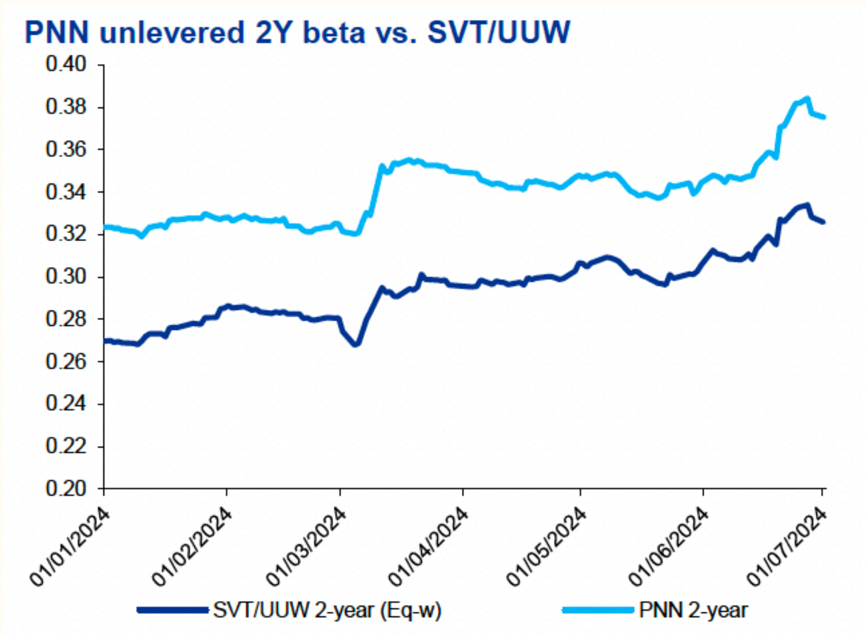
Beta

Ofwat's PR24 unlevered beta range is lower than the PR19 unlevered beta range. This stands in marked contrast to investors' perceptions of heightened risk in the sector, including as a result of a step-change in the industry's capital programme, the problems at Thames Water and the emergence of a less stable and less predictable regulatory climate.

Ofwat's justification for a lower beta is based on an update of previous empirical beta calculations. We are surprised by the weight that Ofwat attaches to this evidence, as empirical estimates of beta calculated using share price data come with wide confidence intervals. Absent a clear structural break, any move up or down in a beta estimate is far more likely to be noise than an actual re-rating of a company's relative riskiness. In this particular case, Figure 9 and Table 8 in the draft determination allowed return on capital appendix make it clear that the latest estimates of SVT and UU betas are higher than the betas that Ofwat observed when it set its PR19 determination and higher than longer term trailing averages. Given this evidence, the rationale for reducing beta is extremely weak.

A further consideration that Ofwat does not take into account when calibrating its beta is the emergence of Pennon as a third pure-play water company. Ofwat correctly notes that PNN share price data from prior to 2021 is affected by Pennon's ownership of a waste business. However, that does not mean that PNN share price data from mid-2021 onwards is unusable and should also be discarded. On the contrary, the new data expands what has hitherto been an uncomfortably small sample size, as set out in the chart below.

Figure 3-1 Unlevered 2Y beta for Pennon compared to average of Sevent Trent and United Utilities



The key takeaway from this chart is the approximate 0.05 differential between the PNN and SVT/UU unlevered betas. KPMG's report offers several possible drivers for this differential, but ultimately concludes that it is not actually necessary to explain why companies' betas are the values that they are. The key piece of relevant new information here is simply that the average beta across three listed water companies looks somewhat higher than Ofwat's previous estimates obtained from a smaller, more limited data set.

It is important to recognise that empirical estimates of beta are backward-looking and convey the co-variance in movements that there has historically been between a company's share price and the value of the stock market as a whole. The risk profile of water companies heading into the 2025-30 regulatory period is not the same as the risk profile that companies had heading into the 2020-25 regulatory period, and it is necessary to ask whether historical betas are the best predictor of current systematic risk levels.

Ofwat notes in its draft determination that the scale of the 2025-30 capital programme could increase investors' exposure to systematic risk, but ultimately declines to make any form of upward adjustment. A key point that Ofwat does not take properly into account of in this discussion is that investors in the water sector are affected not just by greater cost risk, but also by a fundamental shift in the profile of future cashflows in the sector. Specifically, where previously investors could expect to receive a steady cash yield on monies put into a water company, the PR24 financial framework demands a combination of new equity injections and a downward rebasing of dividend payments, thus prolonging the return on investment over a much longer payback period.

The increased exposure to systematic risk stems from the way in which any factor that can impact the value and timings of cash flows will have a greater impact on an asset with a longer cash flow duration vs an asset with a shorter cash flow duration. That is to say, where two investments have an identical net present value of future returns, but company A has cash flows spread out over a shorter period and company B has cash flows spread out over a longer period, investors in company B have a greater overall exposure to future systematic risks and, therefore, have a higher beta.

There is corroboration for this point of view in both the literature and real-life experience. In particular, we think that Ofwat will find it instructive to review the movement in National Grid's share price in May 2024 when the company announced a step up in its planned capital programme, a rights issue and a cut in its dividend yield. Between 23 May and 29 May, National Grid's share price fell by around 25%, indicating a significantly downward revaluation of equity worth, even after the mechanical impact of the rights issue were taken into account.

In this wider context, Ofwat's decision to not make an allowance for the effect of the step-up in the industry's capital programme is another example of a one-sided approach to the cost of capital assessment.

In conclusion, Ofwat's PR24 beta range should be more closely aligned with Ofgem's proposed RIIO-3 beta range. There is no plausible reason why investors in water companies require lower returns than investors in energy networks. Both sectors face broadly comparable underlying cost, revenue and financing risks. Further, the Ofgem and Ofwat regulatory frameworks allocate these risks in a broadly similar way between customers and companies. The only difference that we see is that Ofwat's draft determination beta results in an overall cost of equity that is too low to attract new investor capital, while Ofgem's RIIO-3 beta produces an allowed return which is supportive of major new investment.

The KPMG report recommends an unlevered beta range of between 0.285 and 0.346.

Aiming up

We welcome Ofwat's decision to aim up in its calculated range and consider this to be an important recognition of the asymmetric consequences of setting the allowed return too low vs too high.

As noted above, in order to genuinely aim up, Ofwat should first set centred estimates of the risk-free rate, the TMR and beta that are balanced and neutral. The preceding sections make it clear that we do not believe that Ofwat has done this in the draft determination, the net effect of which is that Ofwat has not, in fact, aimed up as intended.

When Ofwat calibrates its final determination, we urge it to consider directly how much aiming up is required, while providing a commitment to investors that 'aiming-up' will continue to be used in future price controls under certain stated conditions (e.g. RCV growth).

Cross-checks

The discrepancies that we have highlighted in the CAPM-based evidence – including the apparent divergence between Ofwat's thinking and the views of the CMA and Ofgem – reinforce the importance of Ofwat verifying any bottom-up analysis against rigorous top-down cross-checking.

We outlined what we think is the key cross-check at the start of this section – that is, the return on equity must be set at a sufficient distance from the observable cost of debt, and so provide meaningful reward to investors who step forward to take on equity risk.

To further assist Ofwat when it determines what the required positioning is, we are providing Ofwat with details of a hybrid bond cross-check that Frontier Economics has developed (YKY-PR24-DDR-55). We think Frontier's work is valuable because it brings objective data from an additional class of asset to the table and, in doing so, produces a clear message about where the lower bound on PR24 equity returns must sit. Frontier Economics would be pleased to explain this work to Ofwat in greater detail if the regulator would consider this helpful.

We also support KPMG's work on multi-factor models and consider KPMG's latest update to be a useful piece of evidence in a review in which there is a clear disconnect between backward-looking CAPM beta values and the real-world perceptions that companies, investors, analysts, rating agencies and outside commentators have about risk and required return in the sector.

While we agree that there is a role for Market-to-assets ratios (MAR) in cross checks, there is a need for caution when interpreting data. In particular, a small premium to RCV for a company that is currently delivering the best in class in outperformance terms does not equate to the cost of equity being set at a level that is sufficient to attract investment into the whole sector.

Retail margin adjustment

KPMG highlights within its report that it does not consider the retail margin deduction to be necessary. We encourage Ofwat to consider this evidence when re-assessing any potential retail margin deduction at final determination.

3.2.3 Concluding points

As set out in this representation, we have significant concerns over the investability of the water industry in England and Wales, and cannot be confident that Ofwat's cost of equity proposal is sufficient to attract the level of investment needed by the sector to deliver improvements for our customers. Considering all the above points, we believe a cost of equity in the range of 5.29% to 6.48% (nominal 7.29% to 8.48%) would offer risk-adjusted returns more aligned with current market levels and if implemented by Ofwat at final determination, would provide all stakeholders with greater confidence that the much needed investment into the sector would be forthcoming.

The lower end of the range represents a roll forward of the CMA's PR19 methodology, whilst the top end of the range is aligned with the cost of equity report prepared by KPMG.

3.3 Cost of debt

3.3.1 Overview

We welcome Ofwat's stated intention to update the cost of embedded debt for FY24 and FY25 new debt issuances at final determination. We believe this update is critical to ensure that companies are not underfunded on their embedded debt costs.

We have updated Ofwat's model to reflect FY24 APR data and FY25 new debt (per submitted RR24 tables). This update indicates that there has been an increase to the cost of embedded debt of 35bp; however this does not reflect the other amendments that Ofwat is consulting upon, which we would expect to increase the cost of debt further.

Recent debt raises by Severn Trent Water and South West Water, together with increasing spreads across all water sector bonds provide important evidence about the returns investors require that we believe Ofwat should particularly take in to account. If new debt spreads remain elevated versus the iBoxx A/BBB indices, then there is a significant risk that water companies will be materially under-funded on new debt costs in AMP8. This has the potential to result in significant financeability issues for the sector and we believe that Ofwat should address this through additional risk mitigation mechanisms for the cost of debt allowance, covering both the amount and timing of funding of new debt, or the inclusion of an uplift over the chosen iBoxx reference index/indices. Failure to address this risk could further undermine investor confidence in the sector. In addition, Ofwat should consider providing for either an uplift to its proposed A/BBB index, or switching to the iBoxx GBP Utilities 10yr+ index.

3.3.2 Embedded debt

Given Ofwat's stated intention to update the cost of embedded debt for FY24 and FY25 data at final determination, we have updated the regulator's cost of debt model based on the following available data to determine the potential impact at final determination:

- FY24 APR Table 4B data
- FY25 new debt per RR24 data table submissions (at June 2024 market data)

As illustrated by Table 3-3 below, this application of Ofwat's current methodology results in a potential cost of embedded debt of 4.87%.

Table 3-3 Cost of debt methodology comparison

Cost of embedded debt % nominal	"All-in" approach	Actual / Notional	Average of both
Ofwat draft determination	4.52%	4.50%	4.51%
FY24 APR data update	4.88%	4.62%	4.75%
FY24 and FY25 data update	**4.95%**	**4.79%**	**4.87%**
FY24 and FY25 data update (real)	2.89%	2.74%	2.81%

The analysis above does not reflect the further changes currently being consulted upon by Ofwat, which we would expect to increase the figures shown within Table 3-3.

Within our analysis, we have used business plan data from Table RR24 to determine FY25 new debt, as we consider this reflects the expected level of new debt in FY25 more accurately than Ofwat's proposed RCV growth approach. We consider that Ofwat's RCV growth methodology is likely to materially understate the new debt in FY25. This is highlighted by Figure 3-2 below from Barclays, which shows that UU, SVT and SBB have raised a combined £1,100m to date in FY25, whereas Ofwat's RCV approach would imply they will only raise c. £280m (25% of the total amount raised to date).

Figure 3-2 Overview of recent debt issuances for South West Water, Severn Trent and United Utilities

Date	Issuer	Rating	Tenor	Size (£m)	Cpn (%)	Re-Offer (bps)	Δ IPT	O/S	NIP	Δ vs iBoxx[1] (bps)
29-Jul	South West Water	Baa1/-/A-	17.0-year	400	6.375	+185	15	2.75x	-	+81
24-Jul	Severn Trent	Baa1/BBB+/A-	14.0-year	350	5.875	+155	15-20	4.29x	25-30	+30
20-May	United Utilities	A3/BBB+/A-	27.0-year	350	5.750	+112	13-18	1.89x	7	+27

We believe Ofwat should consider actual sector issuances to date, together with RR24 data when determining the level of FY25 new debt, rather than their proposed RCV growth approach.

Index cross-checks

We accept that index-based cross-checks have some role to play in helping to assess the reasonableness of a notional cost of embedded debt allowance. However, we believe any such checks must not undermine the regulator's role in ensuring the financeability of the sector. It has also become clear through the work conducted in PR19, the CMA PR19 process and PR24 that index-led cross-checks can produce a wide range of possible values depending on the chosen start date. These must therefore be used with caution.

We see the index-led approach as a high-level cross-check on the reasonableness of the allowance that emerges from the balance sheet approach, rather than a means of generating a figure that should feed mechanistically into either the top end or the bottom end of Ofwat's final range. This provides consistency with certain cost of equity parameters where cross-checks also do not explicitly form an upper or lower limit.

When considering an index –cross-check for PR24 embedded debt, it is important Ofwat takes into account the actual tenor of debt being cross-checked. FY24 APR data shows that the weighted average years to maturity for the sector is 12.4 years, which would equate to a weighted average tenor at issuance of around 25 years.

An index-based trailing average of 25 years should therefore conceptually provide the primary point of reference in the cross-check for actual sector costs. Ofwat can also look at sensitivities around this assumption; however, as available iBoxx data is currently limited to 27 years, these sensitivities cannot be fully symmetric.

We note that over the last couple of price reviews, actual sector costs have approximated to trailing averages between 15 and 20 years. This may have been appropriate, given the lower interest rate environment at that time. Now that interest rates have returned to levels more comparable with longer term historic averages, we do not believe considering a trailing average between 15 and 20 years – i.e. implying that companies carry forward no debt from before 2010 and 2005 respectively – is appropriate.

We also do not think that Ofwat's weighted collapsing approach is the right approach, as it places too much weight on individual years where there is an arbitrary change in notional gearing, which does not necessarily reflect the actual profiling of debt issuance, including refinancing of existing debt.

Table 3-4 Index cross-check comparison

Index cross-check (% nominal)	20 years	25 years	27 years
Simple trailing average	4.58%	**4.93%**	5.05%
Uniform collapsing average	4.44%	**4.78%**	4.92%

Table 3-4 above illustrates a cross-check range of 4.44% to 5.05% which validates the proposed balance sheet figure of 4.87%.

Actual-notional approach

We agree with KPMG's opinion detailed in Appendix (YKY-PR24-DDR-51) that no weight should be assigned to the actual-notional approach, as it can introduce distortions which could mean that the notional company may not be able to recover its efficient costs.

We use the 'all-in' figure from Ofwat's updated model, together with KPMG's recommended new debt rate for FY25 issuance as the higher bound for our cost of embedded debt estimate.

3.3.3 New debt

We welcome Ofwat's decision to remove the deduction from its benchmark iBoxx index. However, we are concerned that recent market developments mean that the simple average of the A and BBB indices is no longer a suitable benchmark for the cost of the new debt that water companies will issue during the 2025-30 period.

For example. recent debt raises by Severn Trent, United Utilities and South West Water, together with increasing spreads across all water sector bonds, is evidence that new debt rates are currently above the A/BBB average, and is something Ofwat should have particular regard to when setting the cost of debt. As shown within Figure 2 above, all three of these companies have underperformed the A/BBB index by at least 27bp within their FY25 issuances to date.

This effect can also be seen within the iBoxx Utilities index which is currently tracking c30bp above the A/BBB average, whereas historically the two indices have broadly tracked each other, or the Utilities index has been slightly lower.

If new debt spreads remain elevated versus the iBoxx A/BBB indices, then there is a significant risk that water companies will be materially under-funded on new debt costs in AMP8. This has the potential to result in significant financeability issues for the sector. It is important that Ofwat addresses this risk in its final determination so as not to undermine investor confidence in the sector.

One option to support investor confidence and minimise financial risk would be for Ofwat to provide in its indexation mechanism for an annual check and potential adjustment based on observed yield-at-issue in the sector vs iBoxx in each 12-month period. Alternatively, Ofwat could also consider either a fixed ex-ante uplift to the A/BBB index or switch indexation to the iBoxx utilities index.

3.3.4 Liquidity and fee analysis

We welcome Ofwat's decision to increase the allowance to 15bp (split 5bps for issuance costs, 3bps for liquidity costs of 7bps for carry costs).

In relation to issuance and liquidity costs, we would make the following observations:

- Ofwat's allowance for issuance costs only reflects upfront issuance costs (this is what is in APRs) but not ongoing issuance costs. These annual ongoing costs relate to e.g. rating agency fees, advisory fees, trustee and agency fees, and medium term note programme update fees.
- Ofwat's allowance for liquidity costs reflects commitment fees on committed facilities but not the issuance costs incurred to put these facilities in place. There are upfront issuance costs related to e.g. arrangement fees, extension fees and legal fees as well as ongoing issuance costs

We note that within the KPMG report (YKY-PR24-DDR-50) (link to KPMG - Estimating the Cost of New Debt and Additional Borrowing Costs for PR24) it calculates a point estimate of 13bps for carry costs and 6bps for basis risk management costs

We encourage Ofwat to consider the evidence presented by KPMG to ensure these costs are not under-funded.

3.3.5 Concluding points

We welcome Ofwat's commitment that it will update the cost of debt at final determination to reflect all available data, including FY24 and FY25 issuances.

Based on our own assessment of the current available data, as detailed above, we expect this will result in a range for the cost of debt between 3.22% and 3.51% as shown below, subject to any material changes in market rates during the intervening period.

Table 3-5 Yorkshire Water's proposed range for cost of debt

Cost of debt (% real CPIH)	Low	High
Embedded debt	2.81%	2.94%
New debt	3.63%	4.02%
Proportion of embedded debt	74%	74%
Liquidity and fees	0.20%	0.29%
Cost of debt	**3.22%**	**3.51%**

4. Notional financeability

4.1 Overview

We are concerned that the approach to notional financeability adopted by Ofwat is undermining the credibility of their assessment. With the notional structure and equity contribution assumptions that Ofwat has adopted, the financeability assessment has essentially become a "fait-accompli" as the target metrics will effectively always be achieved.

Ofwat's draft determination contains modelling of the financial ratios that companies will exhibit through to 2030 on the assumption that they start the new control period with a gearing ratio of 55% (in comparison to the current sector average of 69%).

In a departure from the approaches taken by Ofwat and the CMA at PR19, Ofwat appears to consider that any weakness in interest cover or FFO to debt versus rating agencies' thresholds for a Baa1/BBB+ rating will be solved by companies withholding dividends and issuing new equity.

Ofwat has a legal duty to ensure that appointees are able to finance the proper carrying out of their functions and we do not believe that the current approach adopted by Ofwat is consistent with this duty. In particular, we see no indication that Ofwat has tested whether the required equity can actually be raised.

We would urge that within its final determination, Ofwat clearly splits its assessment into two elements: a 'debt financeability' assessment that broadly follows the draft determination approach, but gives greater consideration to the appropriateness of Ofwat's new notional structure assumptions for the sector; and an 'equity financeability' (or 'investability') assessment that includes evidence in support of Ofwat's belief that the necessary equity can be raised – both of which are important elements of Ofwat's financeability duty outlined in the previous paragraph.

Moody's latest sector update guided that, if the draft framework is confirmed at final determination, that it could lower its view of the regulatory framework's stability, predictability and supportiveness, which would likely result in a one notch downgrade. In order to ensure that the notional company meets its Baa1 target rating with Moody's, Ofwat should carefully consider its target thresholds in line with Moody's latest guidance.

4.2 Preliminary: overall balance of risk and return

We note that Ofwat's modelling proceeds on the assumption that a notional company will spend in line with Ofwat's cost allowances and meet Ofwat's performance targets.

As we have explained in Section 2, Ofwat has set an overall efficiency challenge that is substantially beyond what a notionally efficient firm is capable of delivering, such that the base expected outcome would be an efficient firm receiving an expected return that is below the level of the allowed return.

The financial ratio tests as currently constructed are not, therefore, a meaningful check on real-world financeability.

In the presence of significant cost overspends and ODI penalties, we do not consider that the notional company can be considered financeable. As part of our draft determination representations we have sought to resolve these issues at source, by increasing our proposed cost allowance and revising performance targets, such that we now consider there is a fair balance of risk and return.

In the event that Ofwat does not accept these changes, further increases to the cost of equity may be required to ensure the necessary new financing can be practically achieved.

4.2.1 Notional structure

We continue to have serious concerns with the notional structure assumptions that Ofwat has adopted, where we discern a lack of credible evidence and inconsistent bases being adopted for the assumptions used, which result in artificially favourable (and unrealistic) outcomes for the debt metrics.

Notional gearing
We continue to have concerns with Ofwat's decision to reduce notional gearing from 60% to 55% which seems to be focused on a desire to improve debt financeability metrics rather than any attempt to capture the real world financing challenges that the industry is facing.

We do not believe any of the new evidence presented by Ofwat within Tables 2 and 3 in Section 2.3 of Ofwat's 'Aligning Risk and Return' appendix provides a credible reason for reducing notional gearing.

- Ofwat Table 2 reflects a mathematical formula that will always result in a year-by-year reduction in gearing (standard inflation assumptions of 2% would still show a reduction in gearing over the period of 3%). However, actual data shows that gearing within the sector has increased by c. 2% over the last two years, as the calculation within Ofwat Table 2 does not reflect the impacts of RCV growth and significant (above CPIH inflation) increases in energy and construction costs, among other factors.

- Ofwat Table 3 does not consider the causes of the RCV adjustment, which will have a far greater positive impact on gearing than the 2.7% implied reduction from the forthcoming RCV change. In particular, one of the main causes of the RCV adjustment is the true up for cost overspends, of which companies typically only receive 45%. If the gearing impact of the RCV adjustment is 2.7%, then this will only arise because companies will already have incurred additional costs which have increased gearing by considerably more than 2.7%. As illustrated by Table 4-1 below, actual gearing across the sector has increased by c. 2% in the FY22-FY24 period and is expected to increase further in FY25 (our own gearing is expected to increase by c. 4%), such that the 2.7% reduction implied will still result in sector gearing above 60%.

Table 4-1 Actual gearing levels for the sector

Gearing (%)	FY22	FY23	FY24
Sector average	66.2%	68.2%	68.6%
'Large company' average	68.1%	68.0%	70.0%
Listed company average (SVT/UU/SBB)	63.4%	63.4%	65.4%

Table 4-1 above highlights that, across all datasets, gearing has increased by c. 2%, even among the top performing listed companies, who would still be expected to have gearing around 60% following the RCV adjustment.

On this basis, we continue to see no justifiable reason why notional gearing should be reduced to 55% nor is it clear what evidence Ofwat has that additional equity associated with this can be raised. We have serious doubts that it can be. If Ofwat decides to proceed with a notional gearing level of 55% at final determination, it would be appropriate to provide an equity issuance cost allowance to cover the cost associated with delivering such a reduction in gearing, alongside evidence of why it believes the additional equity can be raised.

Proportion of index-linked debt
Ofwat's model assumes that 90% of existing index-linked debt is RPI based, rather than CPIH based, which results in a lower cash interest cost being included in key debt metrics. This assumption is based purely on actual sector data, in stark contrast to the notional gearing assumption, which ignores actual sector data.

Ofwat's price review assumes a full transition to CPIH for both RCV and WACC at the beginning of the AMP; therefore it would be reasonable to also assume a full transition to CPIH for all existing index-linked debt.

If Ofwat would like this assumption to be based on actual sector data instead, then the notional gearing assumption should also reflect actual sector data to ensure consistency across all assumptions. At present, there is a serious risk of Ofwat appearing to be 'cherry picking' the assumptions which cannot be the right approach and which seriously undermines the credibility of their financeability assessment.

We note that Ofgem assumed all index-linked debt was CPIH based in their RIIO2 financeability assessment.

Debt financeability
While we broadly agree with the approach adopted by Ofwat towards 'debt financeability', we have concerns that Ofwat has understated the scale of the challenges that companies face.

Table 4-2 below summarises the level of three key debt metrics at the end of the regulatory period under Ofwat's draft determination, together with the following alternative assumptions:

1. Conventional modelling of financial ratios – dividend yield of 4% and no equity injections.
2. Starting gearing at 1 April 2025 of 60% (consistent with PR19 notional structure).
3. All index-linked debt structured as CPIH-linked debt (consistent with Ofgem notional structure).

Table 4-2 Key forecast debt metrics at 2030 using alternate assumptions

Debt metrics (FY30)	Target	Ofwat DD	1 No equity	2 60% starting gearing	3 All CPIH	4 1&2	5 1&3	6 1,2&3
Adjusted ICR	1.50	1.67	1.48	1.55	1.57	1.39	1.41	1.32
FFO to net debt	10.00%	10.09%	8.50%	9.10%	9.86%	7.80%	8.30%	7.59%
Adjusted FFO to net debt	9.00%	9.48%	7.92%	8.48%	9.47%	7.21%	7.92%	7.21%

The analysis above shows that if the assumed equity contribution is removed from the modelling, then the 'debt' financeability assessment becomes less reliable, with all three key debt metrics moving below target. If alternative notional structure assumptions are also layered on top, particularly notional gearing of 60%, then the notional company could not be considered financeable on a 'debt' basis as all key metrics are significantly below target.

Furthermore, this modelling does not factor in any underperformance in relation to cost efficiency or the penalty regime. These would further weigh on financial metrics in the table above.

Our analysis shows that Ofwat's notional financeability analysis flows from the selection of favourable assumptions by Ofwat, but in the absence of adequate underlying evidence to support the use of those assumptions, particularly in relation to the equity 'cure' assumed. We urge Ofwat to reconsider therefore the assumptions used and any evidence that is being relied upon to underpin those assumptions as we do not think they properly support Ofwat's current position on financeability.

4.2.2 Equity financeability (Investability)

Our primary concern with the assessment of notional financeability is that Ofwat has not, in our view, adequately assessed the reasonableness of its equity 'cure all' approach to weakening debt metrics. Specifically, we have significant concerns about whether the notional company will actually be able to raise the required levels of equity at the current proposed cost of equity of 4.8% real.

In order to determine that Yorkshire Water and all other companies within the sector are notionally financeable, Ofwat has assumed significant equity contributions for all companies of c. £10bn, as summarised within Table 4-3 below.

Table 4-3 Ofwat's assumed equity contributions for Yorkshire Water and the sector in its PR24 draft determination

Equity contribution (£m)	Yorkshire WaterW	Sector
Reduced dividend yield (i.e. 4% to 2%)	505	5,680
Equity injections	333	4,010
Total equity "cure"	**838**	**9,690**

Fundamentally, this requirement for new equity is driven by the significant increase in investment needed in AMP8, further increased by separate policy decisions to delay cost recovery. Any equity is simply assumed to be forthcoming when needed, which is an assumption that does not adequately take into account the likely penalty position that the draft determination would impose on the sector, the associated drag on equity returns and the likely impact on sector investability.

Table 4-3 above shows that the quantum of equity that Ofwat has assumed can be provided to solve potential notional financeability issues is close to £10 billion. However, within its draft determination, Ofwat appears to have made no assessment as to the reasonableness of this assumption, nor has it shared with us any form of external assurance that the required equity formation is practically attainable.

While Ofwat has included some equity metrics within its analysis, such as dividend yield, we do not believe the implications of these metrics have been adequately considered.

Ofwat's reduced dividend yield is only 2% (reduced from 4%), which equates to £5.7bn of dividends across the sector; however, investors are expected to also contribute further equity of £4bn, effectively reducing their net cash income to only £1.7bn. This is equivalent to an average net yield over a five-year period of only 0.6%.

While it is possible that some long-term investors will be willing to tolerate very low cash receipts in a trade-off for capital appreciation, we consider that it is important that Ofwat reviews the movement in National Grid's share price in May 2024. The company announced a step up in its planned capital programme, a rights issue and a cut in its dividend yield. Between 23 May and 29 May, National Grid's share price fell by approximately 25%, indicating a significantly downward revaluation of equity worth.

The issues discussed above, together with the concerns we have raised about Ofwat's proposed cost of equity in Section 3.2 and the increased risk and complexity introduced within the draft determination combine to reduce investment prospects. We do not believe it credible to assert, without further detailed analysis and evaluation, that the required level of equity could be raised, given the poor level of returns that shareholders are being asked to bear.

It is imperative that Ofwat should be able to justify the reasonableness of any equity formation assumptions it adopts within its notional financeability assessment. At the moment, we do not believe this to be the case.

As highlighted within the section above, if the equity injections assumed by Ofwat are removed, the debt financeability assessment necessarily becomes more questionable. If some of the notional structure assumptions are also reversed, to a position more comparable with Ofgem, then the financeability of the notional company is more uncertain.

This highlights the criticality of the assumptions being made by Ofwat, and hence the need for a more rigorous assessment of those assumptions to ensure the credibility of any notional financeability assessment.

4.3 Concluding points

Our analysis shows that Ofwat's assessment of notional company financeability is flawed. In particular, we are not confident that the notional company would be able to raise the required levels of equity, as discussed above.

We believe that Ofwat places too much focus on back-solved debt metrics, whilst failing to properly consider equity financeability ('investability') and the reasonableness of its assumptions.

By effectively assuming a limitless equity 'cure', Ofwat has essentially made the financeability testing meaningless. In order to restore the appropriate rigour and credibility to its financeability assessment at final determination, Ofwat needs to do much more to evidence why it believes any equity 'cure' is achievable, and also ensure there is consistency across all its assumptions within the notional structure. We consider that such evidence is not available and that Ofwat must properly address and correct the failures in its current analysis.

5. Financial resilience

5.1 Overview

As a result of the reduced cost allowances and revised performance targets within Ofwat's draft determination, we would anticipate being in a material cost overspend and ODI penalty position. On this basis, the Board is unable to assure that Yorkshire Water would be financially resilient under Ofwat's draft determination.

Moody's released an in-depth sector note in August following the Ofwat's publication of the draft determination. It was particularly concerning to us, and likely to our investors, that Moody's stated that it is considering downgrading its view of the regulatory framework's stability, predictability and supportiveness at final determination. This would likely increase the financial metrics required for each rating band and, at a minimum, materially reduce the rating headroom for the notional company. Moody's also stated that allowed returns "may not be enough to attract equity support" and that companies are at an increased risk of incurring penalties, which Moody's estimate to be £400m p.a. across the sector, based on forecast performance levels included in original business plans (rising to £1,800m p.a., based on current run rates)

Within our DDR, we have included total costs of £8.25bn (post frontier shift, gross of grants and contributions) and adjusted performance targets, such that we now consider there is a 'fair bet' that we can earn a return in line with the base return. In respect of our representation, our Board is able to assure that Yorkshire Water would be financially resilient across the 2025 -30 period and beyond, subject to Ofwat accepting the changes within our representation. Any assessment of financial resilience remains conditional on Ofwat acting in accordance with its statutory duty to ensure water companies are financeable and investible, and setting cost of capital at a level that is sufficient to attract the new investment required both in AMP8 and beyond.
As discussed in Section 3.2 we have significant concerns that Ofwat's draft determination cost of equity of 4.8% is unlikely to be sufficient to attract the necessary equity that the sector needs in AMP8.

We are not convinced that additional financial resilience measures, such as the gearing cap proposal, are necessary to enhance financial resilience, as protections were strengthened significantly in 2023, and those protections are much more targeted to protecting financial resilience.

In any event, Yorkshire Water's position is that, consistent with Ofwat's duty to have regard to best regulatory practice, Ofwat should conduct a full consultation on any further potential changes, similar to the recent amendments in 2023.

5.2 Financial resilience assessment

Our Board has assessed the financial resilience of the company over the 2025-2030 period and beyond. It has taken into account the current position and capital structure, our investment and performance plans, the representations we have made on the draft determination, the potential impact of the principal risks facing the business in severe but plausible downside scenarios, and the effectiveness of any mitigating actions.

In June 2024, we received a further £100 million capital injection, by way of intercompany loan repayment. We have existing cash and committed facilities, plus further planned intercompany loan repayments of £437 million in March 2027.

Consequently, the company currently has a strong liquidity and capital solvency position. This provides a strong basis for our financial resilience over the 2025-2030 period, and to absorb the 'severe but plausible' scenarios identified by the Board, and those prescribed by Ofwat.

The Board has provided an assurance statement within the Executive Summary (YKY-PR24-DDR-01) which includes two key conclusions:

- The Board considers that Yorkshire Water would be financially resilient for 2025-30 and beyond on the basis that its represented changes are accepted by Ofwat and that there

are no major unforeseen changes made to the current regulatory framework. This assessment of financial resilience remains conditional on Ofwat acting in accordance with its statutory duty to ensure water companies are financeable and investible and setting cost of capital at a level that is sufficient to attract the new investment required both in AMP8 and beyond; and

- The Board is unable to provide the requested assurance that Yorkshire Water is financially resilient for 2025-30 and beyond based on Ofwat's draft determination. The draft determination materially understates the level of capital investment needed in AMP8; the incentive regime is not balanced; and Yorkshire Water expects to incur significant financial penalties across the period, with no realistic opportunity of meeting the outcomes required from Ofwat's Draft Determination. Together with the proposed reductions in cost recovery rates and potential dividend restrictions, Yorkshire Water would require greatly increased levels of equity support at a time of a severely depressed returns. The Board cannot be confident that this additional funding would be forthcoming at the level of equity returns expected under the draft determination,

In providing this assurance statement, our Board has assessed viability using the Company's strategic planning process, which includes the risks associated with the impact of climate change, economic uncertainty and recent global events.

5.2.1 Assessment period

Consistent with our original business plan, the Board considers that a period through to the end of the following pricing period in 2035 (PR29) provides an appropriate balance between assessing as long a period as possible, whilst also providing an appropriate level of robustness and assurance to the process.

We provide below a summary of the key assumptions in our plan for the 2025-30 period, which support our financial resilience assessment:

- Ofwat's draft determination WACC of 3.72%.
- Total costs of £8.3bn (post frontier shift, gross of grants and contributions) as detailed within our representation data tables.
- Reduced dividend yield of 3%.
- Repayment of intercompany loan of £437m, equivalent to a capital injection.
- PAYG and RCV run-off at natural rates (draft determination representation only)
- No totex or ODI out/under performance (draft determination representation only)

We provide below a summary of the key assumptions in our plan for the 2030-35 period, which support our financial resilience assessment:

- WACC of 4.5%, which broadly reflects the mid-point of the KPMG cost of equity range set out in the Estimating the Cost of Equity appendix (YKY-PR24-DDR-49), together with a roll-forward of the cost of debt.
- Totex costs per LTDS statutory pathway. being £0.6bn higher than in our original business plan submission due to the impact of changes in the DDR for the structure of the storm overflow programme
- Reduced dividend yield of 3%.
- Capital injections of £500m.
- PAYG and RCV run-off at natural rates
- No totex or ODI out/under performance

5.2.2 Assessment approach

To ensure that the company is financially resilient over the period 2025-2030 and beyond on an actual company basis, we have undertaken a thorough financial resilience assessment, which targets the maintenance of appropriate credit ratings and investor returns to enable us to finance our activities.

We have tested financial resilience against our finance structure covenants and current credit rating metrics.

Our approach to assessing financial resilience at DDR is consistent with the approach we have adopted within our original business plan and when assessing long-term viability (LTV) within our audited Annual Report and financial statements. Further details on our approach can be found within Section 9 of our original business plan.

The assessment includes stress testing against the same 11 sensitivities, based on a robust assessment of the principal risks faced by the business, plus reverse stress testing to assess how much headroom is inherent within our key financial ratios.

While we have tested the representation against downside sensitivities in our assessment, there are clearly risks outside the near-term control of the business which could impact financeability. These include extreme weather effects, major supply chain disruption, changing environmental requirements and economic regulation risk (for example Ofwat not supporting our cost adjustment claims for asset health improvement, and DPC programmes, or recognising the extent of our combined sewers impacting our ability to meet sewer flooding and storm overflow targets, or significantly increasing the downside risk on ODI performance relative to allowed WACC).

5.2.3 Base plan analysis

Key metrics remain above target across the period, with a reasonable level of headroom. On this basis, we expect to maintain credit ratings at our target levels.

This assessment is dependent upon a total assumed equity contributions across the period, reflecting the repayment of intercompany loan by 31 March 2027, reduction in AMP8 and AMP9 dividend yields below a 4% base dividend yield and new equity in AMP9.

However, the Board sees significant risk associated with Ofwat's proposed WACC and cannot be confident that, if unchanged, this new equity would be available to Yorkshire Water.

5.2.4 Stress testing

We have applied three of our own sensitivities together with the sensitivities prescribed by Ofwat. Further details on the sensitivities applied can be found in our original business plan document and supporting appendices.

Key metrics across AMP8 and AMP9 all remain above target on an average AMP basis under all sensitivities.

In-year analysis shows that metrics fall below target in one year in both AMP8 and AMP9 under the 3% ODI sensitivity (ICR) and the high inflation sensitivity (FFO to debt).

- The impact of the 3% ODI sensitivity can be mitigated, as Ofwat's PR19 reconciliation rulebook notes that where ODI adjustments exceed +/- 1% of RoRE, companies can ask to defer the excess to a subsequent year to mitigate extreme cash flow. The effect of this would be to reduce the impact of the 3% ODI scenario down to the 1% ODI scenario, where metrics remain above target in all years.

- The impact of the high inflation sensitivity is not considered to be a significant financial resilience issue, as where a metric threshold for a particular rating is not met, a downgrade might not necessarily be applied if the agency considers the situation to be temporary and likely to reverse in the future. This is evidenced by a lack of ratings downgrades over the last couple of years where inflation has spiked in a similar manner to the sensitivity.

While metrics remain above the financial resilience target levels as discussed above, under certain sensitivities and before potential mitigations are considered, it is possible that the company may enter a period of 'cash lock-up' and gearing levels under all sensitivities are expected to exceed Ofwat's proposed cap of 70%. This will put a further equity strain on the business, on top of the amount already included within the base forecasts. As noted above, we see significant risk associated with Ofwat's proposed WACC and cannot be confident that, if unchanged, this new equity would be available to Yorkshire Water.

5.2.5 Conclusions

In assessing the financial resilience of Yorkshire Water, the Board has considered:

- The detailed financial projections developed as part of the PR24 process, which include the best available information about the 2025-2030 period (AMP8) and the 2030-2035 period (AMP9).
- The downside sensitivities and stress testing linked to the risk management process.
- The strength of mitigations available and the stability which exists under the regulatory model.
- Ofwat's statutory duty to set price controls in a manner which will secure that companies are able to finance their proper functions.

Taking this information into account, the Board considers that Yorkshire Water would be financially resilient for 2025-2030 and beyond on the basis that its represented changes are accepted by Ofwat and that there are no major unforeseen changes made to the current regulatory framework. Any assessment of financial resilience remains conditional on Ofwat acting in accordance with its statutory duty to ensure water companies are financeable and investible, and setting cost of capital at a level that is sufficient to attract the new investment required.

The Board is unable to provide the requested assurance that Yorkshire Water is financially resilient for 2025-30 and beyond based on Ofwat's draft determination. The draft determination materially understates the level of capital investment needed in AMP8; the incentive regime is not balanced; and Yorkshire Water expects to incur significant financial penalties across the period, with no realistic opportunity of meeting the outcomes required from Ofwat's Draft Determination. Together with the proposed reductions in cost recovery rates and potential dividend restrictions, Yorkshire Water would require greatly increased levels of equity support at a time of a severely depressed returns. The Board cannot be confident that this additional company funding would be forthcoming at the level of equity returns expected under the draft determination.

5.3 Financial resilience – additional protections

We can understand why Ofwat is looking at potential options to strengthen financial resilience protections, particularly given the current situation involving Thames Water; however, we are not convinced that the additional measures suggested by Ofwat are required, in particular the proposed additional protections that would apply if gearing exceeds 70%.

- **Financial resilience protections were strengthened significantly last year.** This involves a cash lock-up being enforced as soon as any issuer rating of the company falls to Baa2/BBB with negative outlook. This is considerably stronger than similar protections in the energy industry, where Ofgem are currently consulting on introducing similar measures, but one rating level lower at Baa3/BBB- with negative outlook.

- **The existing protections in place (e.g. rating threshold cash / dividend lock-up) are more targeted** in protecting financial resilience and customer interests than a potential mechanism centred around a gearing 'cap' of 70%.

- **A gearing cap is a blunt and imprecise way of safeguarding financial resilience**. Our response to Ofwat's thinking is very similar to the response we have made to Ofwat's other interventions in this area in the last 10 years (notably the gearing out-performance sharing mechanism and the 2023 licence modifications). It is a misapprehension that financial resilience, or lack thereof, can be collapsed into a single indicator. In reality, financial resilience is built from a number of different factors.

- **A forced equity injection and/or restrictions on dividends make companies less investable**. A decision by Ofwat to proceed on this basis would likely be perceived very negatively by the investor community, which will reduce the ability to raise the investment to deliver improvements for our customers.

We noted earlier in this chapter that PR24 already gives shareholders an unprecedented burden to shoulder. This new proposal, introduced suddenly and without prior signalling, increases that burden by another order of magnitude.

At this point, the observations we made earlier about the lack of an 'equity financeability' test and external assurance once again have considerable force.

Our view is that a full consultation process (similar to the recent licence changes) needs to be undertaken if Ofwat chooses to pursue these proposals, and this should include an independent assessment of the benefits that would be delivered from restricting gearing to 70%, over and above existing measures.

We list below a few fundamental factors that will also need to be considered within any consultation process:

- The application of any proposed policy needs to be clearly set out, as the sector already has too much complexity and uncertainty.
- A transitionary period will be needed – we suggest the 70% target should apply from the end of AMP8 at the earliest.
- Any policy should not involve a simple pass / fail test – i.e. gearing of 70.2%, for example, should not have the same restrictions as gearing levels in excess of 75%.
- Gearing targets should be based on shadow RCV, rather than published RCV, to avoid penalising companies who bring forward, or commit additional investment.
- Any policy should also reflect expected performance across the AMP as a whole – i.e. if gearing increases above 70% in one year due to specific factors, but is expected to return below 70% in subsequent years.
- The policy should consider the impact of exceptional factors, such as the COVID-19 pandemic, which resulted in increased gearing across the sector.

While we do not believe that any further restrictions on gearing or dividends are warranted, if Ofwat decided to proceed with one of the stated options, the Yorkshire Water preference would be for additional guidance over dividend policies.

We believe the current dividend oversight policies are working well. Where Ofwat refers to dividends being 'restricted' within this option, we consider that this does not mean the dividends would be prohibited or fully withheld, consistent with existing dividend guidance.

5.4 Concluding points

The Board considers that Yorkshire Water would be financially resilient for 2025-2030 and beyond on the basis that its represented changes are accepted by Ofwat. Any assessment of financial resilience remains conditional on Ofwat acting in accordance with its statutory duty to ensure water companies are financeable and investible, and setting cost of capital at a level that is sufficient to attract the new investment required.

The Board have significant concerns that Ofwat's draft determination cost of equity of 4.8% is likely to be insufficient to attract the necessary equity.

We can understand why Ofwat is looking at potential options to strengthen financial resilience protections; however we are not convinced that the additional measures suggested by Ofwat are required. Our view is that a full consultation process (similar to the recent licence changes) needs to be undertaken if Ofwat chooses to pursue these proposals which should include an independent assessment of the benefits that would be delivered from restricting gearing to 70%, over and above existing measures.

6. Cost recovery rates

6.1 Overview

We do not agree with Ofwat's proposed 0.48% reduction to our run-off rate:

- It does not deliver intertemporal fairness and our customers do not support pushing the impact of bill rises on to future bill payers to pick up later down the line; and .
- It has a disproportionate impact on Yorkshire Water, as Ofwat has adopted an inconsistent application across different companies.

Within our draft determination representation we have reverted our run-off rates to the rates included within our original business plan.

We agree with Ofwat's approach to natural PAYG rates and have provided revised natural rates to reflect the revised costs submitted with our draft determination representation.

6.2 Run-off rates

We disagree with Ofwat's approach to run-off rates and the proposed 0.48% reduction to our business plan run-off rate. We have commissioned Frontier Economics to provide a report on Ofwat's approach to run-off rates, and have included this within the run-off rate appendix (YKY-PR24-DDR-54).

Frontier Economics concludes that we estimated a run-off rate which was robust and consistent with Ofwat's guidance within our business plan. It also notes that our proposed run-off rate was below the 'natural' rate and the comparable PR19 run-off rate, both of which mean we had already made a contribution towards affordability. We summarise below the three key implications from its report.

i. The run-off rate selected by Yorkshire Water in its BP is below or equal to all three of:

   a. The best estimate of the natural rate run-off rate;
   b. The best estimate of the comparable PR19 run-off rate; and
   c. The upper limit guidance set out by Ofwat in the PR24 Final Methodology.

   This means that Yorkshire Water had already made bills more affordable than a scenario where the natural rate, or a continuation of the last price control rate had been applied. It also means that Yorkshire Water's approach was consistent with Ofwat's guidance from a quantitative and qualitative perspective.

ii. That Ofwat's draft determination findings drew upon evidence which had demonstrable flaws. This means that Ofwat drew conclusions regarding the business plan proposal from Yorkshire Water which were inaccurate. At the final determination, Ofwat should consider the most appropriate data sources: those which are detailed in Yorkshire Water's business plan.

iii. That Ofwat's draft determination financeability-based adjustment approach had an unusually large impact on Yorkshire Water, and creates inconsistencies with other important aspects of the price control. Ofwat should re-consider any financeability-based adjustment, to the extent it remains relevant, at the final determination.

In relation to point iii above, we also note that, in line with Ofwat's recommended guidance, Yorkshire Water amended its cost recovery policy, such that IRE is now recovered through run-off rates, rather than PAYG rates. As a result of Ofwat's suggested run-off rate caps, this meant Yorkshire Water proposed to recover £250m (22/23 prices) less revenue under its PR24 approach than it would have, had it maintained its PR19 approach as illustrated below in Table 6-1.

Table 6-1 Summary of Yorkshire Water's proposed cost recovery rates in PR24 compared to PR19

	PR24 approach	PR19 approach	Variance
PAYG rate (Av %)	42.21%	52.67%	(10.46%)
Run-off rate (Av %)	4.65%	3.78%	0.87%
PAYG revenue (£m)	3,018	3,766	(748)
Run-off revenue (£m)	2,280	1,811	469
Other wholesale revenue (£m)	1,653	1,624	29
Total wholesale revenue (£m)	**6,951**	**7,201**	**(250)**

We note that both South West Water (rated 'outstanding') and Affinity Water have been allowed to maintain IRE recovery within PAYG, enabling them to maintain lower run-off rates. If Yorkshire Water had maintained its PR19 policy, its run-off rate would have been the lowest in the industry, apart from HDD.

Finally, Ofwat's intervention will have an impact on investability. Reduced run-off rates are an additional stretch that investors are being asked to bear. This, combined with other the other factors detailed in this chapter, contributes negatively to investability in the sector.

Within our draft determination representation, we have included run-off rates in line with our original business plan submission. This results in an overall average bill for the 2025-30 period of £553. This is consistent with the bill level proposed in our original business plan, which had strong customer support (79% of household customers found the plan to be acceptable and 60% found it to be affordable). Therefore, we do not consider the proposed adjustment on affordability grounds to be necessary.

Our affordability and acceptability customer research has also shown that the largest proportion of customers prefer an increase in bills to start sooner, spreading the impact across generations, rather than pushing the impact of rises onto future bill payers to pick up later down the line.

6.3 PAYG rates

We agree with Ofwat's approach to natural PAYG rates. As our draft determination representation includes a different mix of costs, we have submitted revised natural PAYG rates, based on our updated costs. These are detailed in Table 6-2 below.

Table 6-2 Yorkshire Water's PAYG rates included in the draft determination representation

PAYG rates	FY26	FY27	FY28	FY29	FY30	Total
Opex (£m)	585.6	604.5	592.6	601.6	621.3	**3,005.6**
Capex (£m)	901.3	1,098.1	1,060.9	895.8	754.7	**4,710.9**
G&C (£m)	(44.1)	(45.9)	(46.4)	(45.8)	(44.6)	**(226.9)**
Wholesale costs (£m)	**1,442.7**	**1,656.7**	**1,607.1**	**1,451.6**	**1,331.4**	**7,489.6**
PAYG revenue (£m)	585.6	604.5	592.6	601.6	621.3	**3,005.6**
PAYG rate (%)	**40.6%**	**36.5%**	**36.9%**	**41.4%**	**46.7%**	**40.1%**

The allocation of operating and capital costs is critical to financeability and financial resilience. Therefore, if Ofwat chooses to alter cost allowances at final determination, it is critical it considers the appropriate reduction to opex and capex individually, rather than applying a cost category average PAYG rate, as was done at draft determination.

6.4 Concluding points

We do not believe adjustments to natural cost recovery rates are necessary on affordability grounds, as our customers supported our proposed bill and do not support pushing the impact of rises onto future bill payers to pick up later down the line.

Any moves away from expected natural rates will further erode investor confidence in the regulatory regime, which increases the risk that the necessary equity can be raised.

We also believe that Yorkshire Water is being disproportionately punished within Ofwat's draft determination adjustments, as we have received the largest adjustment (£198m) in addition to already contributing £250m through the change from PR19 policy. Unlike many other companies, we have also failed to benefit from an increase in cost recovery rates at PR19.

7. Executive Pay

7.1 Overview

Yorkshire Water's business plan did not meet Ofwat's expectations on executive pay policy. Ofwat expects the issues raised in the draft determination to be addressed ahead of the policy for the 2025 to 2030 period being finalised.

7.2 Ofwat action

Ofwat set the following action in the pro forma: "Address deficiencies in executive pay policy" (DDQ_067). The proposed policy for executive pay does not meet all our minimum expectations because it does not contain a reference to how stretching targets will be used for the criteria, which are related to delivery for customers and the environment. Nor does the policy explain how the remuneration committee will take into account overall performance delivered for customers and the environment, in addition to performance against specific metrics. We expect the company to address these issues ahead of the policy being implemented from 2025 onwards.

7.3 Key messages

Since the submission of our business plan in October 2023, we have updated our performance-related executive pay approach. This builds on the previous approach and is consistent with Ofwat's guidance around performance-related executive pay.

For the 2025 to 2030 period, we will build on this updated approach, ensuring continued alignment with Ofwat's guidance.

7.4 Responses

Since the submission of our business plan in October 2023, we have updated our performance-related executive pay approach, effective from April 2024. This builds on the previous approach and is consistent with Ofwat's guidance around performance-related executive pay. It:

- aligns with our vision of a thriving Yorkshire, right for customers and right for the environment,
- includes stretching performance targets, with over 50% of these targets related to delivery for customers and the environment,
- takes into account overall performance, in addition to performance against individual metrics and:
- provides additional clarity on the use of malus and clawback.

Further details are provided in the Annual Performance Report 2023/2024.
This includes how overall performance in the round has been considered, in addition to the formulaic outcome of the performance metrics for variable pay vesting in 2024.

For the 2025 to 2030 period, we will build on this updated approach, ensuring continued alignment with Ofwat's guidance.