December 2022

Creating tomorrow, together:
Our final methodology for PR24

Appendix 10
Aligning risk and return

Ofwat

About this document

This appendix supplements the information on aligning risk and return, financeability, and financial resilience set out, respectively, in chapters 7, 8 and 9 of our final methodology. Additional analysis in relation to the allowed return on capital is set out in Appendix 11 – Allowed return on capital.

We consulted on our methodology in July 2022 and we have set out our final decisions and how we have responded to the comments from stakeholders on each of the relevant policy areas. We have also consulted with the sector in December 2021 in our discussion paper on risk and return which helped inform proposals within our draft methodology.[1]

[1] Ofwat, 'PR24 and beyond: Discussion paper on risk and return,' December 2021.

Contents

1. Introduction

The focus of this appendix is to provide further detail about our methodology on aligning risk and return as set out in chapters 7, 8 and 9. There is also further information on the allowed return in Appendix 11 – Allowed return on capital.

We set out how we will approach risk and uncertainty and the basis on which we have set out our illustrative risk ranges in the final methodology. We set out our expectations that each company should set out its assessment of risk ranges by reference to the return on regulatory equity metric and use such analysis in any request for bespoke uncertainty mechanisms.

In our draft methodology we set out the framework we would apply in assessing the notional gearing level for PR24. We set out our assessment using this framework in section 4. We consider there is a need for a greater role for equity in the notional capital structure to ensure that the incentive based regime operates effectively, to reflect the strength of the incentives regime and to ensure companies are to maintain access to the significant levels of finance that will be necessary to deliver the projected capital investment programmes for 2025-30.

We set out how PAYG and RCV run-off should balance the recovery of costs between different generations of customers. Our starting point for the assessment of PAYG rates proposed by companies will be the 'natural' rate (ie the proportion of totex that is opex). We set a framework for RCV run-off rates that takes account of intertemporal fairness, affordability for customers, our guidance on upper limits and financeability. Reflecting expected levels of enhancement spend and pressures on customer affordability, we would not expect companies to propose RCV run-off rates that are higher than those allowed at PR19 or that are above the guidance set out in section 7. When setting RCV run-off rates we expect companies to consider financeability over the long term as well as short term cash flows, such that depletion of the RCV does not impact on financial resilience over the long term.

We set out our expectations for business plans on financial resilience, dividends, performance related executive pay and voluntary sharing arrangements. We will assess each of these issues as part of our Quality and Ambition Assessment of business plans.

We expect companies to be transparent about how dividend policies and dividends paid take account of the guidance we have issued, including that dividends declared or paid take account of company performance in delivering obligations and commitments to customers, communities and the environment, and long term financial resilience.

We expect policies to demonstrate clearly a substantial link to stretching performance delivery for customers, communities and the environment and to set out how decisions regarding performance-related executive pay will take into account company performance

overall. And we are considering the additional measure of disallowing revenue recovery to ensure that customers are protected if company decisions do not meet expectations.

As confirmed in Chapter 7 of our final methodology we will fully transition indexation of the RCV to CPIH from 1 April 2025. This was considered previously in our risk and return discussion paper[2], with respondents generally supporting the proposal, as there was no further question raised on this issue in our draft methodology consultation we do not discuss the transition further in this appendix. However, we set out our response to the related issues that impact on the calculation of the allowed return in Appendix 11 – Allowed return on capital and we also assess the impacts of full transition in Appendix 14 – Impact assessments.

[2] Ofwat, 'PR24 and beyond: Discussion paper on risk and return,' December 2021.

2. Analysing the balance of incentives

Chapter 7 of our final methodology sets out our proposal to retain Return on Regulatory Equity (RoRE) as the basis for measuring the financial risk companies may face at PR24. This section sets out:

- Our approach to RoRE range analysis and the balance of incentives.
- Our view of the RoRE risk ranges for PR24.
- Our guidance for business plan risk ranges.

2.1 Our approach to RoRE range analysis and the balance of our PR24 incentives

2.1.1 Our final methodology policies

We will continue to use the Return on Regulated Equity (RoRE) metric as an indicative measure of performance across PR24. We aim to set a balanced package of incentives that allows efficient companies with a notional capital structure to have a reasonable prospect of achieving a return that is commensurate with the base allowed return.

We will continue to keep this balance under review as we proceed through the PR24 process. Where there is perceived asymmetry within the balance of incentives, we will seek to address this issue at source. We consider this preferable to adjusting allowed returns to address perceived asymmetry.

As part of this we will continue to analyse performance within the current price review period, reflect on business plan submissions where they reveal information relating to the overall balance of incentives, and to understand how further policy developments affect this balance. In section 2.2, we set out our updated view on the range of performance from our incentives.

Companies should submit risk range analysis based on the RoRE metric as part of their business plan. We expect companies to follow the guidance set out in this appendix and will provide further guidance alongside table RR30 in February 2023.

2.1.2 Changes from our draft methodology

We have made a number of changes that have an overall impact on the balance of incentives at PR24. Policy changes that have an impact on the expected balance of risk and return and impact on our presentation of RoRE ranges comprise our decisions:

- on the level of notional gearing that we will apply at PR24;
- to reimplement a deadband for the compliance risk index (see Appendix 8 - Outcome delivery incentives for details);
- to be able to set collars on performance commitments that have the potential to be a significant source of skew in the outcomes package (see Appendix 8 - Outcome delivery incentives for details);
- on the size of the benchmark index adjustment to be applied to the cost of new debt across PR24 (see Appendix 11 - Allowed return on capital for details);
- to make an indicative change to the strength of the C-MeX incentive from ±12% of retail revenues to ±18%.

These policies (where they impact calculations) are reflected in the RoRE ranges presented later in this section.

2.1.3 Stakeholder views

The majority of company responses argued that the overall package of incentives across PR24 was unlikely to allow companies a reasonable opportunity to achieve the base allowed return. They also argued that the overall risk the sector faces has increased since PR19. Companies, some of which referenced the consultancy report commissioned by Water UK,[3] considered this for the following reasons:

- That there was a change of expectations from customers.
- That a number of long-term challenges (such as climate change and net-zero) put further pressure on the sector.
- That there was an increased likelihood of major weather events, which was also impacted by our proposal to not allow exclusions within performance commitments that may be impacted by weather events.
- The proposed changes to outcomes policies with the removal of caps, collars and deadbands on most performance commitments. SES Water considered that this would increase revenue volatility.
- The continued use of asymmetric incentives such as D-MeX and the newly proposed BR-MeX.

[3] KPMG, 'Relative risk analysis and beta estimation for PR24', September 2022.

- That the level of stretch and the overall expectations of what activities are included in base cost allowances was likely to increase the risk of a miscalibration of incentives.

In contrast to company views, CCW considered that the overall approach might be too favourable to companies, arguing that the policies around enhanced ODIs were beneficial to companies and not customers.

Companies generally agreed that a recalibration of incentives was a more appropriate approach to dealing with asymmetry within the determinations package. However, some companies continued to consider that there should be a link between the cost of equity and the RoRE risk ranges:

- Anglian Water considered that the overall balance of risk will have a bearing on the base return position assumed for PR24.
- Both Wessex Water and Affinity Water considered there was disconnect between the likely revenue at risk and the proposed methodology to set the allowed returns which implied significant reductions in the cost of equity.
- Affinity Water also reflected that any disconnect that allows the company to be exposed to excessive downside risk could undermine financial resilience, putting the long-term ambitions of the sector at risk.

Additionally, South East Water raised the importance of understanding the risk and performance differences between water and wastewater services, considering that this was the more relevant assessment instead of water-only companies and water and wastewater companies.

2.1.4 Our final decisions and reasoning

We will continue to use the Return on Regulated Equity (RoRE) metric as an indicative measure of performance across PR24. RoRE is a simple but intuitive regulatory metric that can be used to depict expected variations around the base allowed return on equity based on a company's performance against our price review incentives. This extends to RoRE risk ranges, which set out the potential variations around the base return that companies could be expected to manage based on the incentive framework set during the price review process.

RoRE risk ranges support two objectives during a price review:

- Firstly, they can help to **align customer and company interests:** an assessment of the relative magnitude of return at risk from the price review incentives facilitates company planning to achieve customer priorities.

- Secondly, it can help to **illustrate the forward-looking risk-reward balance of PR24:** the distribution of risk ranges can provide insight into whether the risk-reward balance of company business plans and our PR24 incentive package is reasonable.

Therefore we consider that it is appropriate that companies should submit risk range analysis based on the RoRE metric as part of their business plan. We will set out further guidance for companies in preparing their risk ranges in guidance to business plan table RR30 reflecting the policies set out in this appendix.

RoRE risk ranges will also be used once final determinations have been set to:

- **Monitor company performance** across the price control period, allowing stakeholders to understand how companies are performing against their suite of price review deliverables.
- **Evaluate the price review** to help consider whether the price review incentives worked to achieve the objectives over a price control period and whether a reasonable balance of risk and return was struck. We used this approach in our review of PR14 to inform the development of the methodology for PR24.[4]

We have carefully considered the overall balance of risk and return implied by our draft methodology. We disagree that it is necessary to prescribe a link between RoRE risk analysis and base allowed returns. Our aim is to set an allowed return that reasonably remunerates investors for the risks associated with investing in the water sector. We provide further detail on this in Appendix 11 – Allowed return on capital.

The ex-ante risk ranges that we present in section 2.2 set an expectation that the risk and reward package is broadly symmetric. Our aim is to set cost and incentive allowances that allow for an efficient company with the notional capital structure to have a reasonable prospect of earning the allowed return over the determination period. This means that we aim for a company's overall price review package to be reasonably balanced.

In practice companies will generate returns that are higher or lower than this reflecting their performance. Where companies do not deliver performance in the round that is commensurate with the base return, then returns to investors will be lower, and it is the company and its investors' responsibility to maintain financial resilience, within the constraints of the determination and the licence.

We expect companies to meet stakeholder expectations in delivering their obligations to customers and the environment and we consider that stakeholder expectations are impacted by, at least in part, the past performance of companies in delivering their obligations. The

[4] Ofwat, 'PR14 Review', January 2022, pp. 67-76.

long-term challenges the sector faces are not new risks, we note for example that in November 2020, water companies unveiled plans to deliver a net zero water supply for customers by 2030.[5] It is likely that companies are further ahead than they were at previous reviews.

As set out in Chapter 7, there are consequences that are accounted for in the risk ranges where companies may not be able to manage the likelihood of a risk materialising, but where a company can have a critical role in managing impacts and, where managed efficiently, can lead to a better outcome for customers, then we continue to consider that this means that water companies should not be isolated from the impacts of certain risks, such as weather-related events. We have made some targeted revisions to the policy approach previously proposed that impact on the overall risk and return package, taking account of responses to our draft methodology. These are set out in section 2.1.2. Overall, we have a number of risk protections designed to protect customers and companies from substantial risks in the outcomes package such as the aggregate sharing mechanism and a targeted approach to caps and collars. We discuss our decisions in Appendix 8 - Outcome delivery incentives.

In some instances, companies raised concerns that certain elements of the risk and return package were asymmetric in nature, resulting in an expectation of underperformance. However, in carrying out the overall assessment of the balance of risks, the impact on returns must be considered in the round, taking account of all elements of risk and return, including outcomes, totex and financing. Such assessment must also consider the scope for upside (for example including opportunities to receive ODI outperformance payments for delivering exceptional performance) and the extent to which a company may or may not be efficient. We will keep these issues under review as we set our final determinations, but we expect companies to make a balanced assessment of the scope for both upside and downside in their business plans, taking account also of the extent to which that upside or downside might be the result of efficiency or inefficiency.

We continue to see value in companies providing risk ranges and explaining their own assessment of risks. We expect companies to follow our guidance, making use of historic information and, where applicable, setting out well evidenced cases as to why their circumstances are different and need to be reflected. We will then be able to consider how best to deal with these circumstances.

We set separate water and wastewater efficient expenditure allowances and performance commitments. Our RoRE metric is focused on impact at the appointee level, however table RR30 will allow input to risk ranges by controls. Where companies consider that there are differences in the risk ranges that apply on a forward-looking basis across water and wastewater services and have compelling evidence to support this, then companies can set this out alongside their risk analysis.

[5] Water UK -Net zero 2030 routemap

2.2 Our view of RoRE risk ranges

In this section we set out our assessment of the return at risk for each of the components of our incentive package. We do this with reference to a company that has a notional capital structure of 55% gearing.

2.2.1 Our final methodology risk range

Table 2.1 and Figure 2.1 demonstrate the scale of each of the components in our incentive regime for a company with the notional capital structure. These represent reasonable high (P90) and low (P10) cases that largely reflect the range of performance observed across the sector across a five-year period. These are not intended to reflect extreme possibilities. In the following sections we set out how we have arrived at our view of each of these components.

We consider that the overall balance of risk to be broadly symmetric at -4.85% to +4.80%.

Figure 2.1: Indicative PR24 RoRE risk ranges for the notional company

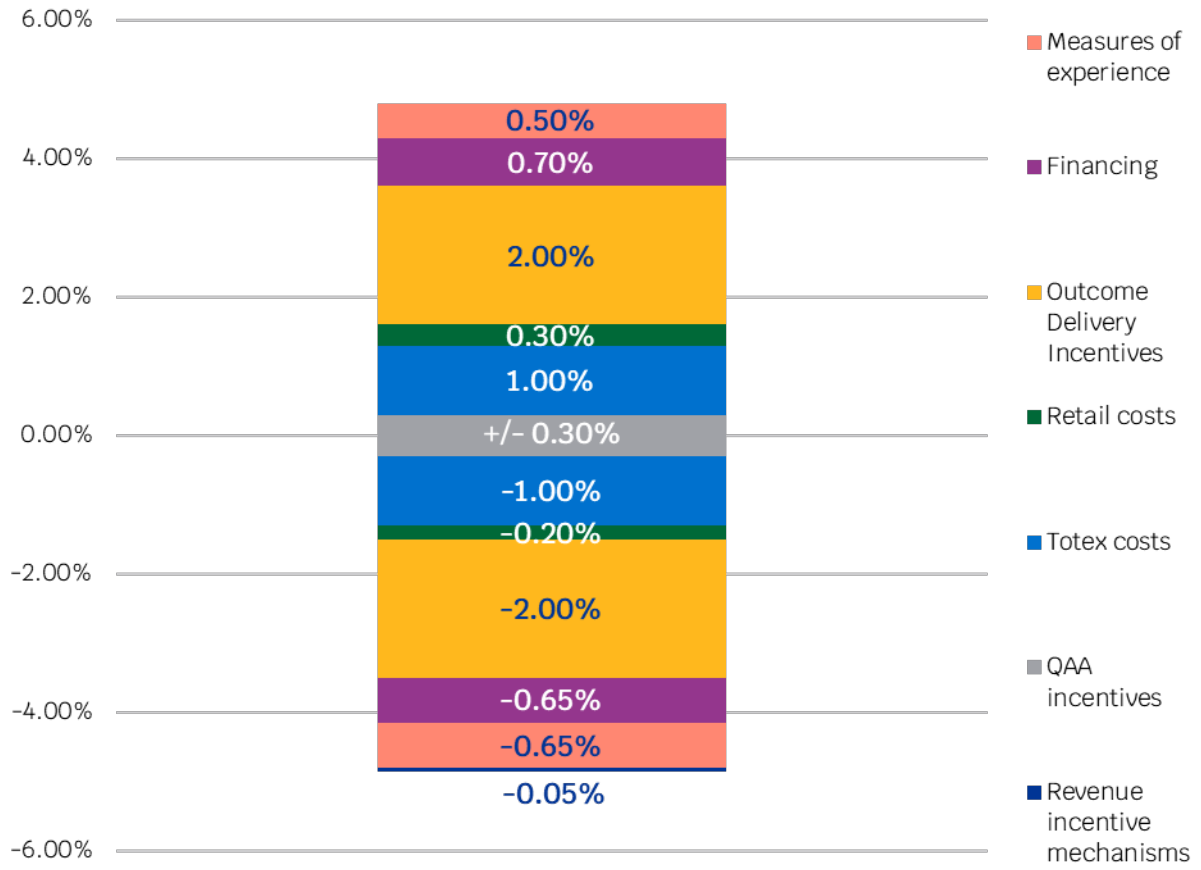


Table 2.1: Indicative PR24 RoRE risk range for the notional company

Component of risk	Reasonable downside (P10)	Reasonable upside (P90)
Quality and ambition assessment	-0.30%	0.30%
Totex costs	-1.00%	1.00%
Retail costs	-0.20%	0.30%
Outcome Delivery Incentives	-2.00%	2.00%
Financing	-0.65%	0.70%
Measures of experience	-0.65%	0.50%
Revenue incentive mechanisms	-0.05%	0.00%
Total	-4.85%	4.80%

2.2.2 Changes from our draft methodology

We set out our changes in section 2.1

2.2.3 Stakeholder views

Respondents raised a number of concerns with our approach to risk ranges:

- The majority of companies strongly disagreed with the reliance on historic information to inform our view of risk ranges, raising concerns that the reliance on historic information was likely to be a poor estimator for future performance.
- Companies also considered that inclusion of the current price review period should be considered when calculating risk ranges, providing various cuts of data shows that a number of companies are reporting underperformance against the PR19 cost allowances and performance commitments in the first two years of the price control period. However, taking account of both operational and financial performance, CCW flagged that seven companies are currently outperforming the financing risk range we set out in the draft methodology.
- Companies also had concerns about the use of a notional company from which the risk ranges have been calculated. Views were expressed that the notional company does not consider company specific characteristics and risks and so may not reflect the full balance of risk.
- A number of companies also felt that the absence of embedded debt within the range was incorrect and that it should be reflected within risk ranges.
- Companies also continued to emphasise the importance of risk correlations between the individual components of risk. Some companies stressed that without this link the risk ranges would be less robust, especially considering that additive ranges are likely to exaggerate the aggregated impact of our incentives.

Responses were mixed on the level of complexity and detail that is required for risk analysis.

- Respondents were generally sympathetic of the trade-offs between further complexity (such as using Monte Carlo analysis) and the ease of a more simplistic approach.
- A number of companies suggested alternative approaches as to how risk could be considered. With some considering that a scenario driven approach that focused on specific risk drivers would be a more appropriate approach to capture risk.
- South West Water and Bristol Water considered that Monte Carlo analysis could be appropriate if a plausible range of assumptions were used. They also consider that a fuller distribution would improve understanding, stating that P10s and P90s only capture a limited picture.

- Hafren Dyfrdwy proposed that a rule of thumb type approach might also be appropriate, suggesting simple interactions such as achieving the maximum ODI payment would result in the company achieving 50% of the maximum totex returns.
- Thames Water considered that in light of recent financial penalties, it could be a category to consider as part of the RoRE risk ranges.

2.2.4 Our final decisions and reasoning

This section sets out our evidence and analysis that drives the risk ranges set out in section 2.2.1.

We understand companies' concerns with using historical information and that our risk ranges are presented on a forward-looking basis. However, we consider that PR24 is an evolution of the past determinations and so historical information remains the most appropriate guide for the overall balance of the framework and is relevant as a reliable source of performance information reported by the companies. Performance information is less influenced by information asymmetries between the owners of the information and the readers of the annual performance reports, making it a more reliable tool to understand the balance of incentives.

We have considered how best to reflect the most recent performance data, reflecting that information from 2020-21 and 2021-22 only covers the first two years of the current regulatory period. We consider information over longer time periods, such as the full period of the most recent price control, to be the most relevant information as our determinations apply across the five-year price control period. Shorter time periods are more likely to be impacted by single events and matters such as deferred investment.

We will continue to consider how performance data should be reflected in our ranges and our policy. Currently we have used the insights gained from the current performance to inform our policy considerations on matters such as the aggregate sharing mechanism for ODIs, the targeted use of caps and collars and issues around specific performance commitments.

We agree with the views of respondents that an assessment of risk ranges should not be unduly burdensome and that the merits of adopting a burdensome approach are unclear. We have not accounted for the interactions between the components of our risk ranges, and so we continue to acknowledge that additive risk ranges likely overstate the likely range of RoRE outturns.

We expect companies to take a proportionate approach to their assessment of risk ranges, and business plans should explain the basis and assumptions on which company analysis has been carried out, including a fair assessment of the scope for both upside and downside performance. We continue to consider that a scenario-based approach doesn't necessarily

support the overall picture and continues to be more effective in areas such as financial resilience. However, we do consider scenarios as an appropriate approach when justifying further uncertainty mechanisms for example.

Some stakeholders misunderstood our intentions with embedded debt. There are two elements to embedded debt that are important to consider, the risk to embedded debt over the review period (such as the inflationary impacts) and the known central cost of embedded debt compared with the single cost of debt allowance. This central estimate of the cost of embedded debt for the notional company will be reflected in a company's balance sheet as at 31 March 2025 and will change across the period as debt is refinanced. We consider that this is a risk companies need to manage, but not one that should be appropriately reflected within the financing risk ranges. We discuss how companies should deal with this further in section 2.3.

As we set out in section 2.1, a consideration of the overall balance of risk must consider overall performance – including cost, service and financial performance. There are some features of a company's financial performance, linked to actual financial structures that are reported in annual performance reports that we do not capture in the notional RoRE range. These include risks that companies must manage under their actual structures including, for example, the impacts of company financing choices where this departs from the notional capital structure and other matters such as addressing pension deficits. These matters are important for understanding performance against our determinations and it is important that companies report them in their annual performance reports. Matters relating to a company's actual financial structure are allocated such that companies and their investors are responsible for bearing the financial risks from departing from the notional structure.

Consistent with the approach adopted at PR19, we do not consider there should be an expectation that RoRE analysis for the notional company should include an expectation of financial penalties. Our determinations will be set to allow companies sufficient funding to meet their obligations and commitments and therefore we do not consider an assumption of financial penalties should be included in the risk analysis. The following sections set out how we have calculated the incentive ranges displayed in section 2.2

Quality and ambition assessment

In Appendix 12 – Quality and ambition assessment we state that we will cap direct financial rewards at +/-30 bps on regulatory equity in each year of the 2025-30 price control and this is the basis for this range.

Totex costs

Analysis of outturn historical performance against our assessment of efficient cost allowances shows that, overall, there has been a positive skew towards outperformance

against the benchmarks of our past determinations. Companies have exhibited a range of performance across these determination periods, with, on average, outperformance reported against cost allowances set for the 2000-05 and 2010-15 periods, performance in line with cost allowances for 2005-10 and underperformance in 2015-20.

2015-20 was the first period that featured totex and our outcome delivery incentives so is the closest comparator to our PR24 approach. Therefore, the assessment of the range of performance on totex is likely to be a reasonable starting point for our view of the RoRE ranges for our PR24 framework.

To calculate the risk range, we have used the P10 and P90 from the 2015-20 period set out in Annex A to obtain a view of around +/- 8.5% for totex over/underspend. We have used this and an assumption of 50/50 sharing rates[6] where cost sharing is applicable to calculate a totex RoRE range of between - 1.00% to + 1.00%. We acknowledge that current forecasts suggest that enhancement spend in 2025-30 could be greater than that funded in 2015-2020, and this could impact on the final risk ranges for PR24. However, we are not able to reflect this in risk ranges in the absence of information from company business plans.

Retail costs

Our assessment of retail cost risk is based on the average outturn expenditure compared to our allowance across 2015-20. Using the data set out in Annex A, we obtain a range of between -19% underspend and 10% overspend. We have used this to calculate a retail RoRE range of between -0.20% and +0.30%.

Outcome delivery incentives

Outcome delivery incentives are designed to align the interests of companies and their investors with the interests of their customers. We expect revenue at risk to be equivalent to around a ±1% to ±3% return on regulatory equity each year for an efficient company (in addition to the measures of experience).

We consider that this range remains appropriate to continue to incentivise performance on outcomes despite the changes to notional gearing. Our outcomes package will continue to develop alongside the price review and we consider that the high-level RoRE range (using ±2% as an indicative point estimate, as illustrated at PR19) remains reasonable for the illustrative range across the price control period.

Financing risk

[6] Some items are subject to different cost sharing rates. For simplicity we have assumed 50/50 unless it is an item without cost sharing such as bioresources.

We continue to define financing risk as risk relating to performance against the allowed cost of debt and split this into two areas:

- Inflationary impacts and
- performance on raising new debt.

Companies are significantly protected from inflation risk due to the indexation of allowed revenues and the RCV. However, because the component of the RCV that is financed by fixed-rate debt increases with inflation, while fixed-rate debt stays constant, there is a driver of equity returns linked to the share of fixed-rate debt and the level of outturn inflation. In practice this means that a company's performance against its allowed cost of debt is still subject to some inflation risk.

Our 'early view' allowed return uses the Bank of England's 2.0% CPI target. Noting the OBR's recent forecasts return inflation closer to the official target (albeit with some deflationary forecasts) in the period of the PR24 price control[7], we have used a +/- 1.0% inflation range. This is also aligned with the thresholds which, if breached, trigger a requirement for the governor of the Bank of England to write a letter to the chancellor explaining why the inflation target has been missed and setting out the plan to return to the 2% target.

To calculate the RoRE impacts we use a 33% split of index linked debt (as a portion of the entire debt portfolio of the notional company) and 55% notional gearing level which leads to an inflation based RoRE impact of between -0.60% and 0.60%[8].

The allowed cost of new debt is subject to an end of period reconciliation, and following the accruals concept, we do not include cashflow consequences of in-period movements of the benchmark index (the iBoxx A/BBB 10+ non-financials index) against the initial cost of new debt allowance. There are however variations in the cost of debt raised by companies and this can drive revenue variance which is not picked up by our indexation approach.

We have also considered performance when issuing new debt using the proportion of new debt of 17% as set out in our early view of the allowed return. Our RoRE ranges draw on the analysis provided around the benchmark index adjustment in Appendix 11 – Allowed return on capital.

[7] Office for budget responsibility, Economic fiscal outlook, November 2022, Table A1: Economy forecast
[8] Ranges are calculated using the following equation: Inflation variation x (1 – Proportion of non-IL debt) x (Gearing / 1 – Gearing) x (1 – Tax rate)

Figure 1.2: Observed bond yields compared with our benchmark index

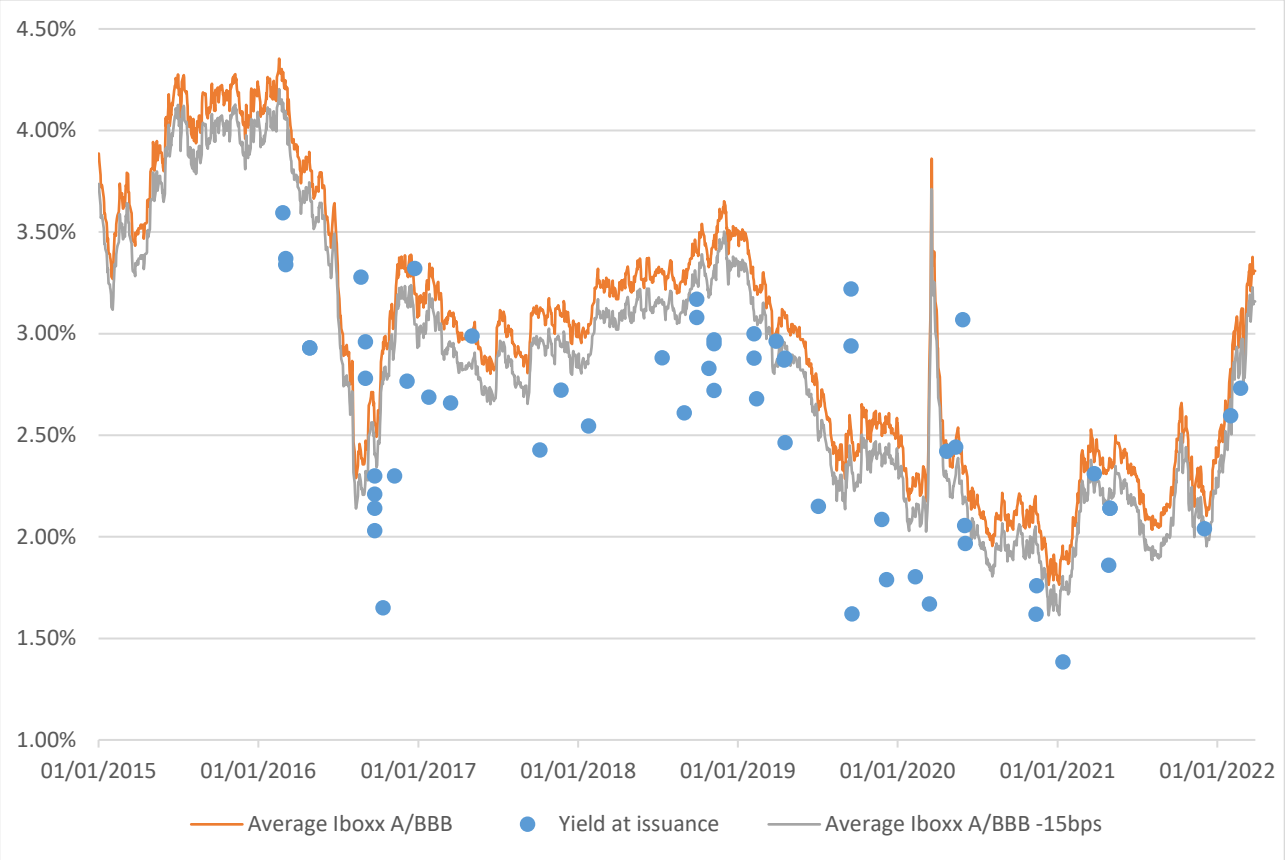


Figure 2.2 shows the sample of 60 fixed rate issuances which provides a P10 – P90 range of between -0.7% and 0.3% compared with the allowed return on new debt.

Converting this into RoRE gives a range between -0.05% and 0.10%.

Measures of experience (C-MeX, D-MeX and BR-MeX)

C-MeX, D-MeX and BR-MeX are mechanisms that introduce financial adjustments that aim to incentivise companies to deliver high levels of service to residential customers, developer services customers and business customers and hence align the interests of the customer base with companies and their investors.

As we set out in Appendix 6 - performance commitments and Appendix 8 - Outcome delivery incentives, compared with PR19, we are intending to increase the strength of the C-MeX incentive at PR24. We have used ±18% of retail revenues (up from ±12% in the draft methodology) to indicate this increase in the risk ranges. BR-MeX is an incentive mechanism that will be introduced for the first time at PR24.

We have included the full range of outcomes against C-MeX, D-MeX and BR-MeX. We consider this is an appropriate approach given the relative nature of the measures of experience, which means that maximum and minimum returns are available to all companies.

As we are minded to retain the incentive size at +0.5% to -1.0% of wholesale revenue recovered from business customers that we set out as part of our draft methodology. We have continued to use this as the basis for risk ranges. We will continue to consider whether this remains appropriate as we finalise the incentive design of BR-MeX as part of our draft determinations.

We estimate that this equates to potential RoRE impacts of around +0.05% to -0.10%, on a weighted average basis. This is an addition to the return at risk for the customer experience metrics at PR19 and is reflected within our calculation of the range.

The new BR-MeX will only apply to English water companies because of the extent of competition in these areas. For the Welsh companies, we will develop bespoke performance commitments that measure business customer experience.

By applying the maximum range of incentives for C-MeX, D-MeX and BR-MeX we estimate a RoRE range of between **+0.50% and -0.65%.**

Revenue

We view the risk to revenue as a very small component of the RoRE range. Our reconciliation mechanisms protect companies against the majority of revenue risk. We consider it is still appropriate to provide a small downside impact, which we illustrate as -0.05% to reflect the impact from the revenue forecasting incentive mechanism and other sources of revenue risk such as bioresources.

2.3 Risk analysis guidance for business plan submissions

2.3.1 Our final methodology guidance

We expect companies to use RoRE as the basis for demonstrating their view of risk within their business plans. Companies should use table RR30 to set out the components of risk, as noted in Appendix 13 – Data and modelling we will also provide a RoRE model in spring of 2023 from which RoRE charts can be populated and included within business plan submissions.

Companies will calculate their risk ranges based on a notional gearing level of 55%. Generally, our scenarios should form the basis of risk analysis. Deviations from this shouldthen be

evidenced and explained. For example, we would expect +/- 8.5% to be the starting point for totex analysis which would then be applied to the actual expenditure proposed within the company's business plan. Companies can then provide evidence as to why they have chosen a different range and if there are any company specific risks they consider need to be reflected.

Table RR30 will provide inputs for the high and low impacts across each year of the price review period for the following categories:

- Totex scenario by price control
- Outcome delivery incentives by water, wastewater and retail.
- Financing scenarios by new debt and inflation impacts.
- Measures of experience (C-MeX, D-MeX and BR-MeX)
- Revenue & other

There will also be an input for the impact of proposed uncertainty mechanisms which do not factor into risk ranges. We discuss this further in section 3. Alongside this table we will publish guidance that clearly sets out the expectation for each line item.

2.3.2 Changes from our draft methodology

We have built on our guidance to provide further clarity on our expectations. We have also made minor changes to table RR30 and will provide further guidance to support this table in February.

2.3.3 Stakeholder views

Responses on the approach to guidance was often mixed in with discussions around the overall approach to ranges. Where responses were specific to the guidance, companies broadly considered that the guidance was appropriate given the ask.

Respondents considered the trade-off between complexity and flexibility. With respect to guidance, many respondents felt that the complexity of things such as interdependencies meant that any further guidance was unlikely to be helpful. SES Water considered that there would be no value in further guidance if we make it clear that companies are required to provide clear explanations of their choices.

A number of companies raised concerns around the lack of guidance given to how we will take into account their views of risk. On a similar note, some companies were concerned that our approach did not give enough consideration to their individual circumstances.

As set out in section 2.2.3, a number of companies considered that the absence of embedded debt within the range was incorrect and that it should be reflected within risk ranges. These comments also related to the guidance given for company ranges.

2.3.4 Our final decisions and reasoning

We consider that the level of guidance we have provided should aid a more comparable approach while still enabling companies to evidence their individual circumstances. We agree with SES Water's sentiment that it is unclear that additional guidance will add value. We have provided additional information where we consider more guidance is needed to provide further clarity.

Companies should complete their analysis using the notional capital structure, as this is the basis on which our determinations are set. Companies will still have the freedom to set out their view of risk ranges for other factors. As set out companies will need to explain their underlying assumptions and calculations, considering reasonable impacts on both the upside and the downside.

Companies own and are responsible for the information in their business plans. They should have a good understanding of the drivers of out and under performance, therefore we consider that it is important that companies consider this in putting forward a balanced assessment of risk in their plans as presented in the RoRE analysis. There is a trade-off between the level of prescription we provide for RoRE analysis and the extent to which companies set out their own assessment of risks.

Our view remains that companies shouldn't include the benchmarking impact of embedded debt in their view RoRE risk ranges. This reflects our desire to keep the risk ranges focused on risk across the PR24 incentives. To clarify, this refers to the central estimate of embedded debt costs that a company will carry on its' balance sheet between periods. For example, a company may have a cost of debt as at 31 March 2025 that is higher or lower than our single embedded debt allowance, this will drive an expectation of performance at PR24.

However, we appreciate that this will influence management decisions across the PR24 period. Therefore, we retain our position that companies should clearly set out in their commentary how their historic performance against our embedded debt allowance is likely to influence decisions made across the period.

We also note that we have not included an input for our quality and ambition assessment incentives in our RoRE analysis table as the risk analysis should focus on the core incentives that will apply across the price review period.

3. Uncertainty mechanisms

Water companies benefit from a number of risk and uncertainty mechanisms. These include those incorporated into company licences (such as the interim determination mechanisms, which allow price limits to be changed in certain limited circumstances), the operation of the regulatory regime and the suite of risk sharing and reconciliation mechanisms that are included in price review determinations (as set out in Appendix 13 – Data and modelling).

This section sets out our proposals around the role of bespoke uncertainty mechanisms at PR24.

3.1 Our final methodology policies

As set out in Chapter 7, there will be a high evidential bar for accepting notified items[9] or bespoke uncertainty mechanisms. Such mechanisms introduce a reallocation of risk and return between companies and customers and companies already benefit from suite of risk sharing and reconciliation mechanisms that provide significant protection for companies. There is no automatic presumption that PR19 mechanisms will be rolled forward to PR24.

We will consider requests for uncertainty mechanisms against the assessment framework below:

- **Materiality**: Companies benefit from cost sharing, indexation and revenue correction reconciliations which mitigate impacts on the business. Companies should provide compelling evidence that the uncertainty would have a material impact on the business. The efficient, net impacts should be demonstrated using RoRE analysis, taking account of the prudent steps that could be taken to manage the effects of that risk. The total impact of all proposed uncertainty mechanisms post implementation should be input to table RR30.
- **Efficiency of risk allocation and customer protection**: We place weight on the principle that risk should be held by the party best placed to manage it. Companies should provide compelling evidence as to why the consequences of the risk in question is outside of prudent management control and would be more efficiently allocated to customers than to the company and its investors. This includes providing details of the company's ability to manage this risk without the uncertainty mechanism.
- **Cost-benefit**: Mechanisms can improve precision in allowance-setting and can support policy objectives, however the implementation of the mechanism needs to be such that it is proportionate and protects the interest of customers. Companies should set out how

[9] A "notified item" is an item we specify that has not been allowed for (either in full or not at all) in our price control determination. Notified items are (together with the relevant changes of circumstance specified in company licences) eligible for consideration as part of an interim determination.

they propose to implement the mechanism, referencing the extent to which the provision for the uncertainty mechanism might already be provided for in cost allowances, any triggers the mechanism may require and how the proposed mechanism would be applied.

3.2 Changes from our draft methodology

Our approach remains largely unchanged from the draft methodology. We have built on the policies previously set out to provide clarity on the assessment framework for uncertainty mechanisms set out above.

We have decided that we will discontinue the WINEP reconciliation and the Developer Services Revenue Adjustment, and we discuss our reasoning further in Appendix 13 – Data and Modelling.

3.3 Stakeholder views

Companies broadly supported our approach in this area, recognising both the importance of the protections in place and the need to continue to monitor the burden they place on companies.

- United Utilities considered we should resist reducing the suite of mechanisms further, whereas SES Water suggested that we shouldn't encourage further mechanisms to be introduced.
- Some companies proposed additional mechanisms to deal with specific uncertainties such as energy costs.
- South East Water stated it would welcome adjustments to the interim determination threshold, advocating that it is either reduced or that specific costs have different thresholds.
- Southern Water stated that additional uncertainty mechanisms may be required which are more agile than the interim determination process.
- Affinity Water considered that we did not explicitly address the requirement to ensure that the allowed return is consistent with the net exposure faced by companies when these mechanisms were removed.
- Thames Water noted that we should consider materiality carefully and we should consider what the uncertainty landscape looks like going forward.
- Dŵr Cymru considered that by putting the onus on companies to demonstrate company specific factors there was a very high evidential bar.

Companies also raised points around specific mechanisms, these have been dealt with in the relevant sections.

3.4 Our final decision and reasoning

Our regulatory framework provides companies with a suite of protections that limit company exposure to uncertain events. These protections include:

- inflation indexation of the RCV and revenues;
- the cost of new debt reconciliation which provides protection for changes in interest rates;
- revenue reconciliations for wholesale controls and volume-based reconciliations for changes in customer numbers and sludge volumes;
- cost sharing mechanisms that mitigate exposure to cost out/under performance;
- tax reconciliations that provide protection against changes in tax rates; and,
- protection against large impacts on ODI payments from our aggregate sharing mechanism.

In addition to this, companies have several protections in the licence that allow price limits to be changed in certain limited circumstances. Company licences contain interim determination provisions and the substantial effects clause that are subject to defined materiality thresholds.

Taking account of all of the mechanisms above, we consider there must be a high bar for the introduction of additional risk mechanisms or the revision of existing materiality thresholds that are defined in the licence as these would have the effect of reallocating costs or risks from companies to customers. We consider that, as our approach to PR24 is an evolution of previous reviews, it is not necessary to change the interim determination process. It is also important to consider the overall risk package and not look at interim determinations in isolation.

We have carefully considered the suite of reconciliation and uncertainty mechanisms, both in development of our draft methodology and in considering responses to the draft methodology. We consider that the suite of mechanisms set out in Appendix 13 – Data and modelling is appropriate, reflecting our PR24 policy approach.

We consider there are asymmetric incentives that exist for companies to put forward claims that have the effect of reallocating responsibility for bearing risks from companies to customers and we need to ensure that the interests of customers are protected. However, we also recognise there are also situations where a 'bespoke uncertainty mechanism' could form part of an efficient and effective package of risk and return. For example, this could be the case where the costs for an item are uncertain at the time of the final determination and so have not been allowed for in the determination. We set out our framework we will apply for assessing such claims in section 3.1.

On the specific issue of energy costs, we note that energy costs are included in our assessment of efficient base expenditure allowances. Companies already receive protection through cost sharing arrangements. As discussed in Appendix 9 – Setting expenditure allowances, we will also consider whether a real price effect is needed for energy costs at PR24.

4. Notional capital structure

Chapter 7 of our final methodology sets out that we will apply a notional gearing level of 55% in our PR24 determinations. This section sets out further detail in support of our decision. The section sets out:

- our final methodology policy on notional capital structure;
- a summary of stakeholders responses to the draft methodology; and
- our final decisions and the reasons for those decisions.

4.1 Our final methodology policies

We have assessed the level of notional gearing that will be applied in our PR24 determinations in accordance with the assessment framework set out in our draft methodology. We conclude that there is a case for a stronger role for equity in the notional capital structure than applied at PR19.

We consider this is necessary to ensure the notional capital structure is resilient to a more uncertain future and that it remains resilient in the context of the revenue that is at risk as a result of service performance. We consider there are benefits to adopting a lower notional gearing level at PR24, as it helps to ensure a company with the notional capital structure has the capacity to continue to raise finance efficiently to enable it to deliver the expected programme of investment while remaining resilient to shocks.

We confirm that we will set notional gearing at 55% for the period 2025-30, five percentage points lower than the level applied at PR19.

We signal our decision now as this provides companies the opportunity to revisit and align their structures with the notional level ahead of PR24 should they want to. Based on evidence of changes in gearing levels seen under actual financing structures and evidence of changes in notional gearing levels by regulators from one determination to another, we consider a five percentage point reduction in gearing, compared with PR19 to be reasonable and achievable for a company with the notional capital structure.

Furthermore, we consider the gearing reduction is achievable for the notional company ahead of 2025, taking account of the benefits of high inflation for equity in the current regulatory period. Therefore, we consider there is no need to provide an additional allowance for equity issuance costs to reduce notional gearing ahead of 2025.

4.2 Stakeholder views

Many stakeholders responded to the view we set out in our draft methodology that there may be a greater role for equity in the notional capital structure:

- CCW supported the proposed framework for determining the notional capital structure.
- No water company or investor that responded supported a reduction from the notional gearing level set at PR19 (60%).
- However two water companies suggested that if we were to reduce notional gearing, a reduction of 2.5 percentage points (to 57.5%) should be the maximum reduction.

Objections raised by companies in response to the proposals set out in our draft methodology focussed on:

- The position set out in a consultancy report for WaterUK[10] that proposed an alternative framework for assessing the notional gearing levels, which concluded that the framework did not support a reduction in notional gearing at PR24.
- Views were expressed that large changes in gearing levels did not support the maintenance of a stable and predictable regime, and introduced costs to the extent that companies are required to amend their structures.
- Some companies considered that the proposal to reduce gearing required considerable additional substantiation and impact assessment. Views were expressed that companies should be provided an allowance for equity issuance costs associated with gearing reductions and costs of carry (which respondents suggested were more relevant for listed companies that would need to raise equity in large tranches).

In terms of choices about the level of notional gearing:

- Many of the companies said that the relevant market metric for benchmarking gearing is regulatory gearing (net debt:RCV). This is the metric that is used by credit rating agencies in their assessment of credit ratings. Companies argue that gearing ratios based on enterprise value (EV) are not relevant to financeability.
- Companies tended to argue that a notional gearing level of 60% is at the lower end of what is perceived to be reasonable based on gearing levels reported by companies, criteria assessed by Moody's and recent regulatory decisions in regulated sectors.
- Companies suggested that a notional gearing of 60% provided a sufficient equity buffer not withstanding any perceived increase in risk. And to the extent that risks were perceived to have increased, for example as a result of climate change, companies suggested that other mechanisms may be more efficient for dealing with

[10] Frontier Economics, 'Notional capital structure, An independent assessment of Ofwat's proposed approach for PR24', September 2022

any perceived increase in risk, and referenced mechanisms adopted by other regulators.

- The consultancy report commissioned by WaterUK argued there is no evidence to indicate the social optimal level of gearing would be below the sector gearing levels, suggesting instead the social optimum level may be higher than sector gearing due to taxation benefits and the focus of management on operational performance.
- The consultancy report and a number of companies argue that changes to notional gearing risks undermining investor confidence and goes against regulatory best practice without clear market evidence and supporting assessment in the round.
- Some companies suggested there were better targeted ways of encouraging companies to reduce gearing: Severn Trent suggested penalties for high gearing and United Utilities suggested cost of equity uplifts for companies close to notional gearing (taking account of pension deficits).

Finally, some companies suggested high inflation could not be seen as a basis for implementing a reduction in gearing for the notional company, as it did not take account of (i) the effects of accretion of index-linked debt, (ii) increases to input costs above CPIH, and (iii) excess profits reinvested for the benefit of customers.

4.3 Our final decisions and reasoning

Our draft methodology for PR24 set out that our notional gearing decision would be set within a framework that reflected the need to:

- incentivise **efficient financing choices** given the balance of risk faced by water companies;[11]
- reflect the **scale and nature of investment needs**;
- take account of a range of **appropriate benchmarks and evidence**; and
- allow us to set a price control that is in the **best interests of current and future customers**.

CCW supported the application of the framework.

The consultancy report commissioned from Frontier Economics by WaterUK set out a conceptual framework for setting notional gearing covering external factors, such as sector risks, economic policy and financial markets, WACC optimal gearing, societal costs and benefits, and behavioural factors, such as corporate management, regulation and financial resilience. The report acknowledges these factors are complex to assess and argues

[11] We consider that the notional company should maintain an appropriate level of equity that provides sufficient headroom to reflect the risks faced by the company, and to provide a capital structure that allows efficient access to the debt market through an investment grade credit rating.

therefore that the best way to implement the framework is to focus on the market data and empirical evidence for regulatory gearing.

We consider the factors set out in the report are not inconsistent with the framework we have set out above and we have concluded there is nothing to suggest the framework set out above is not one that is reasonable for assessing the notional capital structure for PR24, and so we carry out our assessment using the framework.

In addition to the framework set out above, we consider the impacts of the current high levels of inflation on the notional structure adopted at PR19.

Efficient financing choices

In order for incentive-based regulation to be effective, we recognise the essential role played by equity and the requirement to set notional gearing at a level that allows a company to manage the risks associated with delivering its obligations and commitments over the long term. Companies must have a sufficient equity buffer, such that companies are resilient enough to withstand external pressures and revenue at risk from operational performance, while raising finance necessary to deliver their investment programmes. For a given cost of debt, high levels of gearing can reduce headroom, and in extreme scenarios could put a company under pressure to reduce costs or delay investment which could lead to potential detrimental impacts on customers.

To ensure the interests of companies and investors are aligned with those of customers, it is essential that equity investors are engaged with the incentive regime. We consider there is a need for a greater role for equity in the notional capital structure to ensure that the incentive based regime operates effectively, reflecting the levels of stretch that are driven by cost and performance incentives within the regulatory regime, as well as risks associated with external events and regulatory compliance. Our experience regulating companies with thin equity structures suggests sufficient equity needs to be at risk for the incentive based regime to operate effectively and to minimise the risk that companies cut costs or delay investment which may impact customers. The increased equity buffer also recognises that financial penalties, where they have been applied, have increased over time.

We consider that risks associated with matters such as climate change must be managed by companies within the context of the determinations we set. As set out in Chapter 7 of our final methodology we aim to set a balanced incentives package that we will continue to keep under review throughout the determination process. We continue to utilise risk sharing mechanisms and we will continue to ensure that companies and customers will be protected from substantial risks in the outcomes package.

Finally, our choice of notional gearing provides a clear signal that we would not expect investors to extract unearned gains through revisions to the capital structure. It also acts as a signalling mechanism for companies to maintain financial resilience.

Scale and nature of investment needs

Early indications of the potential scale of the investment programme in 2025-30 suggest that companies are expected to face substantial investment needs at PR24 and beyond. To deliver the significant investment programmes for customers and the environment, it is necessary for companies to maintain sufficient equity to ensure the capacity of companies to borrow efficiently over the period.

Therefore, there is potential for higher real RCV growth over the 2025-30 period and higher asset growth typically warrants a need for equity finance.

Academic studies suggest that an increase in gearing levels can lead to a significant decrease in net investment. This was referenced by Economic Insight in 'A report for Heathrow Airport Limited'.[12]

Appropriate benchmarks

We now consider the relevance of gearing benchmarks derived from different sources.

We agree with companies that the most relevant measure of gearing for consideration of notional gearing is regulatory gearing rather than gearing based on enterprise value. However, when considering evidence from other sectors, regulatory gearing may not be readily available, meaning gearing based on enterprise value must be used as a proxy.

We consider that the reduction in notional gearing of five percentage points is supported by evidence from gearing levels across European equity markets. European equities have shown a reduction in gearing levels of around seven percentage points between 2018 and 2021.[13]

A number of companies consider gearing of water companies under their actual structures to be a key consideration for the level of notional gearing. Consistent with the approach adopted in our previous determinations, we do not place significant weight on sector gearing as a benchmark as companies are responsible for their own financing decisions within the context of the price determinations, their licence and company law.

Our view remains that the level of gearing that companies adopt reflects the interests of the individual company and its investors. It may also be influenced by other structural features

[12] Economic Insight, 'Need for gearing recovery, A report for Heathrow Airport Limited', March 2021
[13] Based on data from 'Damodaran Online, 'Current and archived data, Debt ratio trade off variables by industry', European series. Total European stocks excluding financials has reduced from 32.98% in 2018 to 25.69% in 2021.

such as whole business securitisations or other covenanted debt structures that may not be relevant for the notional structure. The range of gearing levels reported across a variety of covenanted and non-covenanted structures is illustrated in Figure 4.1. Average gearing of securitised companies at 31 March 2022 was 70.2% (within a range 57.7%% to 80.6%) whilst non-securitised companies was 61.6% (within a range 39.7% to 72.4%).

Fig 4.1. Company gearing at 31 March 2022 segregated between securitised and non-securitised companies

Source: annual performance reports for the year ended 31 March 2022

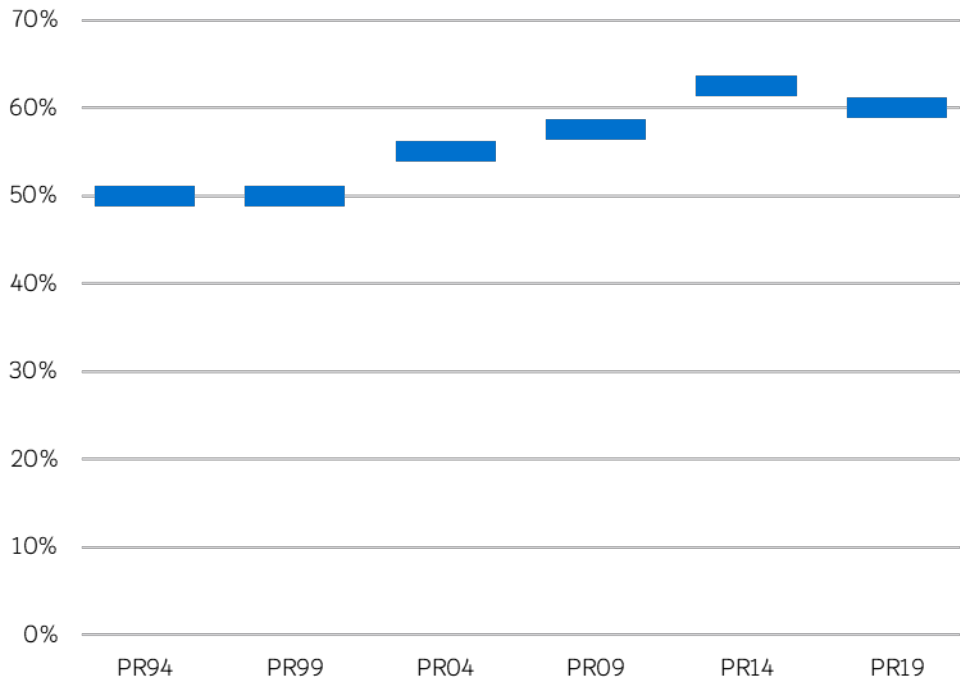
Using sector gearing as a basis for notional gearing risks circularity of gearing decisions and places customers at greater risk from the consequences of companies' financing decisions. This is consistent with the recommendation for setting the notional gearing assumption in the UK Regulator's Network (UKRN) consultation on draft guidance for regulators on the methodology for setting the cost of capital, which sets out "The notional gearing assumption should reflect the balance of risks facing the regulated company and a wide range of benchmarks on gearing levels, not just that of the actual company (or companies) in question."[14] Furthermore, setting the notional gearing level by reference to the financing choices of limited liability companies is unlikely to reflect the full societal costs, for example where these result in company failure.

The UK Water consultancy report, along with a number of companies argue that changes to notional gearing level risks undermining investor confidence and goes against regulatory best practice without clear market evidence and supporting assessment in the round. Figure 4.2 shows that we have revised the notional gearing level at each determination since PR99.

[14] UKRN, 'UKRN guidance for regulators on the methodology for setting the cost of capital - consultation', July 2022, pps. 28-29

Changes between determinations have typically been in the range of 2.5 to 5 percentage points. Furthermore, we have seen similar increases and decreases in notional gearing from the energy sector[15] and gearing decisions across a range of regulatory determinations in the period 2019 to 2022 have been in the range 30% to 60%.[16]

Figure 4.2: Notional gearing from 1995 to 2025.



Source: Ofwat analysis of price review documentation (PR94-PR19)

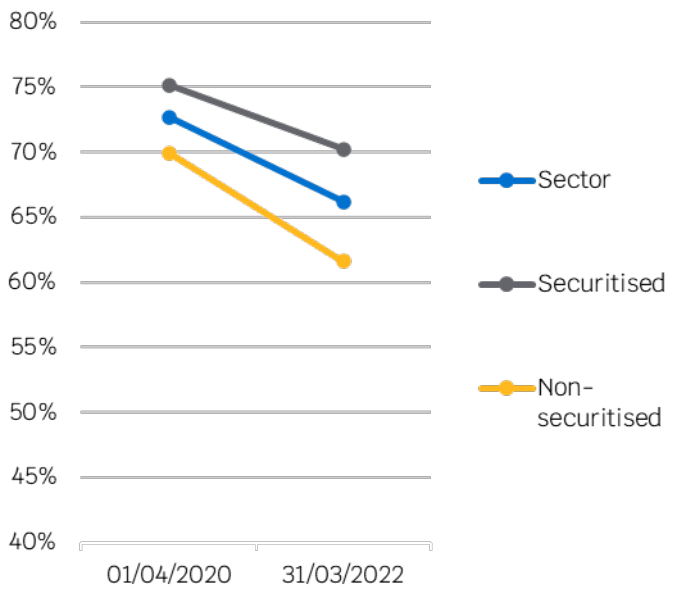
Taking account of past regulatory decisions, we do not consider a change of up to five percentage points, from 60% to 55% to be unprecedented. Furthermore, we do not consider our decision is contrary to regulatory best practice, as we have signalled our proposal to potentially lower the notional gearing level since 2021 for a price control that starts in 2025. This provides time for companies to respond to the change in notional gearing, should they wish to do so.

Furthermore, figure 4.3 shows that average gearing across the sector has reduced since the beginning of PR19. This is due in part to the steps taken by some companies (such as Anglian Water) [17] to amend their capital structures and the impact of current high inflation. It

[15] In its recent RIIO – 2 final determination for Transmission and Gas Distribution network companies and the Electricity System Operation , Ofgem reduced notional gearing from 60% to 55% for NGET, from 65% to 60% for Gas Distribution network companies and from 62.5% to 60% for Gas Transmission companies.
[16] UKRN, Cost of capital – Annual Update Report, July 2022 Table 3.
[17] Anglian Water, 'Preliminary announcement of full-year results for the 12 months ended 31 March 2022', June 2022, Anglian Water set out that it had completed its financial restructure with a shareholder injection of more than £1 billion, reducing gearing from 82% at 31 March 2021 to 65%.

supports a view that a reduction in notional gearing of around five percentage points is achievable by companies under their actual structures within a five year period.

Fig 4.3. Sector gearing since the beginning of PR19



Source: Ofwat analysis and annual performance reports for the year ended 31 March 2022

The claim that a level of notional gearing that is below 60% is inconsistent with the target credit rating for the notional company was raised in responses to our risk and return discussion paper. We maintain our view that a credit rating is an in-the-round assessment of the credit worthiness of a company taking account of a range of qualitative and quantitative factors. Therefore, we do not consider that each financial ratio needs to fall within the guidance range for the BBB+/Baa1 target credit rating for the notional company. Indeed, a strong level for the gearing ratio may allow some leeway on other financial metrics such as adjusted interest cover or funds from operations to net debt.[18]

Best interests of current and future customers

Notional gearing is currently below the average gearing of the sector. However, as referenced above, the social level of gearing is likely to be lower than the level observed in the market as the societal costs of bankruptcy or near failure are born by customers as well as investors, and are likely to outweigh any management benefits from high gearing.

We consider that changes in notional gearing may act as a signalling mechanism to companies about the need to maintain financial resilience. We have set out our view

[18] Moody's Investors Service, 'Bristol Water plc: Update following CMA approval of acquisition by Pennon', May 2022. In its recent credit opinion for Bristol Water plc, Moody's commented that "Gearing is forecast to remain below 70% of net debt to RCV, thus leaving headroom against the maximum 85% for the Baa2 rating, which would also help to offset credit pressure of an AICR slightly below guidance."

separately that it would be inappropriate to adopt an alternative approach of rewarding companies for maintaining resilient financial structures when this is a basic expectation of a water company.[19]

Impact of high inflation on levels of gearing

Gearing is measured as net debt divided by RCV and inflation has a larger impact on RCV than on net debt. Whilst the RCV grows in line with inflation, the amount repayable for existing fixed rate debt does not increase. High inflation will benefit equity investors most in the companies with a high share of fixed and floating-rate debt, as well as the notional company with its high share of fixed-rate debt. Based on the forecast levels of inflation published in August 2022, we assess that a notionally financed company, with zero real RCV growth should be able to reduce its gearing levels by more than five percentage points ahead of March 2025, assuming no other variation in outturn costs against the PR19 final determination. We provide further detail supporting this assessment in our impact assessment which is set out in Appendix 14 – Impact assessments.

Conclusion

Taking account of all of the factors above, we consider it to be reasonable to set notional gearing at 55% for 2025-30. This reflects our view that there is a stronger case for equity in the notional capital structure. We consider a reduction in gearing of circa five percentage points compared with PR19 is achievable for the notional company over a price control period.

Furthermore, we consider the current period of high inflation provides the notional company (and many companies under their actual structures) the ability to reduce gearing ahead of 2025. Signalling our decision now provides companies the opportunity to revisit and align their structures with the notional level ahead of PR24 should they wish to.

[19] Ofwat, Consultation under sections 13 and 12A of the Water Industry Act 1991 on proposed modifications to strengthen the ring-fencing licence conditions of the largest undertakers, July 2022, p.24

5. Corporation tax

Chapter 7 of our final methodology sets out our approach to corporation tax. This section sets out further detail in support of our decision. This section sets out:

- Our final methodology policies for corporation tax;
- A summary of stakeholders responses to the draft methodology; and
- Our final decisions and the reasons for those decisions.

5.1 Our final methodology policies

The approach for setting tax allowances is largely consistent with the approach at PR19. We summarise our approach in this section and more fully in section 5.3 to clarify our approach.

We will set tax allowances at the wholesale level and for each wholesale control as if each of these price controls were standalone entities. This is consistent with the principle of ensuring that the allowed revenue for each control reflects the underlying costs for providing those activities.

Separate calculations will be carried out for each wholesale control and any tax losses will be apportioned across tax paying wholesale controls to ensure that the amount customers pay is based on the total tax charge for the wholesale business. We set the margin for the retail controls to include an allowance for tax.

Our calculation of the tax allowance takes account of interest payments, which are deductible for tax purposes. Our approach to calculating interest deductions is to take account of interest payments on debt by using the higher of a company's actual proportion of debt financing, and the proportion of debt financing assumed in our notional capital structure. This removes the incentive for companies to increase gearing purely to benefit from the increased tax shield.

Companies will need to provide details of their opening capital allowance pool balances and forecast capital allowance claims in their business plans, split over the four wholesale controls.

We retain our PR19 mechanism for passing through significant changes to the corporate tax rate and capital allowances which are outside company control.

We confirm we will adopt a symmetrical approach to tax clawback arrangements such that we will adjust tax allowances at PR29 where companies increase or decrease gearing through capital restructuring during the period 2025 to 2030.

5.2 Stakeholder views

Few stakeholders responded to the draft methodology in relation to our approach to setting tax allowances. Generally, companies that did respond agreed with the approach we set out.

Two companies said that further detail is required on how we intend to claw back any excess tax allowance that may arise from a company increasing gearing during the price review period. Views were expressed that the mechanism should avoid unintentionally capturing companies that temporarily gear-up to fund capital expenditure whilst implementing changes to their capital structures. The same two companies also expressed views that the mechanism should be symmetrical for both increases and decreases in gearing.

5.3 Our final decisions and reasoning

Our calculation of the allowed cost of equity is on a post-tax basis and our calculation of allowed revenues includes an allowance for corporation tax. Our overall approach to tax aims to incentivise companies to manage their tax affairs efficiently – while recognising that it is important for companies to take responsibility for the tax elements of their plans – and to make sure the approach is fair to customers.

In assessing companies' proposals for tax allowances we will continue to use an approach based on the projected taxable profits for the appointed business. The calculation will use allowed revenue and available tax deductions, based on expected, efficient, expenditure. We will apply relevant corporation tax rates, and associated reliefs and allowances, as set out in UK tax legislation.

Some companies asked for further clarification regarding how recent changes to taxation rates and the introduction of enhanced capital allowance rates will be implemented in the PR19 tax reconciliation, and in business plan tables. We will provide an update to the PR19 tax reconciliation in the reconciliation rule book in due course. Business plan tables have been updated to provide guidance to companies for completion but separate reporting of the expenditure that qualified for the enhanced capital allowance rates in 2021-22 and 2022-23 is not required. Any residual balances remaining at PR24 will qualify for the same rates and can therefore be added to the existing opening balances for modelling purposes.

We expect companies to provide their opening capital allowance pool balances based on the position in their latest submitted tax computations. These should be rolled forward to include expected additions up to 31 March 2025, and adjusted to remove any assets relating to the non-appointed business.

In practice, companies may choose to disclaim capital allowances (that is companies can choose whether to use their capital allowances in any year or to carry them forward to be

used in future years) to utilise group relief available from other group companies. Where companies choose to disclaim capital allowances in any period, they are able to carry the unused capital allowances forward. These can be used for the benefit of customers in future periods.

In our calculation of tax allowances, we will assume that companies make full use of all the capital allowances available to them in the period. Therefore, where companies have chosen to disclaim capital allowances previously, resulting in higher opening capital allowance pool balances, we will use the higher opening pool balances in our calculation of tax allowances. We will also assume that full use is made of all capital allowances available, as a result of any capital expenditure in each year.

Our approach will minimise the amounts that customers are required to pay to fund tax liabilities. Opening capital allowance pool balances should reflect the actual full value available to companies, and should not be adjusted to reflect the impact of any previous disclaimers. We will only allow an adjustment to a company's opening capital allowance pools to reflect specific disclaimers if there is compelling evidence that any previous capital allowance disclaimers that were made reflected the most tax efficient approach for the appointed business and were in customers' interest. Companies should set out the case for an adjustment in their business plan if they believe they qualify

Companies are able to reduce their tax liability by transferring losses from other group companies.

Where companies receive group relief from other group companies, our default position (for purposes of our price determinations) is that companies should pay the full value for that group relief.

This ensures that customers are not disadvantaged as a result of the company having received group relief for which it made no payment when customers had funded a tax allowance.

Payment for group relief is to be calculated at the headline corporation tax rate. If a company does not make a payment for group relief, we will recover a proportion of the tax allowance given to companies. This proportion will be equivalent to that unpaid for group relief. We will not seek to recover any additional amounts where group relief has been used to offset tax liabilities in excess of the tax allowance for the 2020-25 period, as those liabilities have not been funded by customers.

In the same way, if a company transfers losses from the appointed business to another group company, these should be paid for at full value (based on the headline tax rate). We will deduct the full tax value of any losses surrendered in this way from the tax allowance. This

approach will ensure that customers do not lose out as a result of losses being transferred out of the company that could otherwise be offset against tax liabilities in the future.

Where companies do not pay for group relief received in the period it is used, but instead recognise a liability for the amount payable, then we would expect companies to settle that liability within a reasonable time. The onus will be on companies to clearly set out in their reporting what is payable in respect of group relief that has been utilised and when those payments are made.

Any adjustment would be made at the end of the period (at the same time as we make any adjustment under the tax true up mechanism).

We will retain the mechanism to make adjustments to the tax allowance for certain matters that are outside company control such as changes in the corporate tax rate and capital allowances. This ensures that customers pay no more than is implied by prevailing tax rates where tax rates are below our price determination assumptions but would pay more where tax rates turn out to be higher than assumed. We retain this mechanism for PR24.

Consistent with previous price controls, we will calculate tax allowances on the basis of the gearing that underpins the notional financial structure, or a company's actual gearing if higher. This will ensure that customers, rather than investors, benefit from any higher tax shield from interest payments. We will also retain our policy to recover, at a subsequent price review, the tax benefits arising from any capital restructuring in 2025-30. Tax benefits will be recovered where there is a one-off step change in gearing that is the result of a financial restructuring. Where we identify the need for such adjustment, and a company disagrees, we consider the onus should remain with each company to provide compelling reasons as to why such an adjustment should not be made. Our policy approach aims to ensure that tax benefits arising from a financial restructuring are passed back to customers.

We have considered views of two respondents that the tax clawback mechanism should be applied symmetrically, such that we should reconcile our tax calculations if companies reduce gearing levels. We agree that the application of a symmetrical approach would provide a fairer outcome for companies and provide an incentive to encourage companies to reduce gearing levels at the margin. Therefore, we will adopt a symmetrical approach to tax reconciliations, such that where a company decreases gearing that is the result of an equity injection to the regulated company, we will adjust the tax allowances as part of the following price review. This policy will apply from 2025 and the adjustment will be calculated by rerunning the financial model for the prior period.

Dwr Cymru raised an issue it sees with in-period outcome delivery incentive payments at PR19 being inflated in line with an assumed tax saving at headline rates of corporate tax rather than the marginal tax rate. We set out our approach in our final determinations of in-

period outcome delivery incentives for 2021-22.[20] In the PR19 reconciliation rulebook we said companies should set out their expected marginal tax rate for the following charging year in their requests for an in-period determination with appropriate evidence. We said we would take this into account, as well as upcoming changes to tax policies and any other relevant factors, when making our determinations. For our final determinations, from 2023-24 onwards we apply a marginal tax rate of 25% for most companies in line with the UK government's recently announced decision to increase corporation tax from April 2023. We will review if this remains appropriate, and whether a subsequent change is required, in next year's in-period determinations. However, for Dwr Cymru, along with Southern Water, submitted a case to demonstrate that it did not expect to incur tax during the 2020-25 period and therefore we included a marginal tax of 0% consistent with the allowances made at PR19.

[20] Ofwat, 'Sector overview -final determinations of in-period outcome delivery incentives for 2021-22', November 2022, pps. 17-18

6. Financeability

Chapter 8 of our final methodology sets out our approach to the assessment of financeability and cost recovery. We provide further information in relation to cost recovery in section 7. This section sets out:

- Our final methodology policies for assessing financeability;
- A summary of stakeholders responses to the draft methodology; and
- Our final decisions and the reasons for those decisions.

6.1 Our final methodology policies

Our overall approach to the financeability assessment at PR24 will largely follow the approach adopted at previous determinations. We confirm that:

- Each company will need to submit a plan that is financeable and provide board assurance that it is financeable on the basis of the notional capital structure with an opening level of gearing of 55%.
- The financeability assessment will be carried out at the appointee level using the PR24 financial model by reference to an efficient company with the notional capital structure that underpins the allowed return on capital. A range of financial metrics and other factors are used to help assess the financeability of business plans and our determinations. Other parts of this include the requirement for companies to provide assurance that business plans are financeable, and a review of cost recovery rates proposed in business plans to ensure these are reasonable and do not store up a financeability problem beyond the period of the price control. Companies should use the financial model in carrying out their financeability assessment in their business plans.
- For the notional capital structure, we will adopt an opening proportion of index linked debt of 33% and maintain the proportion of index linked debt at a minimum of 33% over 2025-30, with new index linked debt raised over the period being linked to CPIH.
- We will assess financeability before taking account of the revenue impact of any adjustments relating to the previous price review periods (for example, from reconciliation mechanisms). We do not make any distinction between reconciliations resulting from out or underperformance and other reconciliations that adjust for items outside of companies' control, such as the RPI-CPIH wedge and the cost of new debt, which are designed to make good shortfalls in revenue or to return excess revenue to customers.
- Companies should target a credit rating of at least two notches above minimum investment grade in their assessment of financeability of the notional company

(BBB+/Baa1), and specify how this has been achieved. This may be by reference to the levels of financial ratios included in the financial model and other factors considered relevant.

- We expect companies to explain the dividend yield and growth assumptions in their business plans used for their financeability assessment. We set out guidance, based on our early view allowed return, that a yield of four percentage points should represent the maximum that is reasonable for a company with little real RCV growth, and which notches down to take account of higher levels of RCV growth. For our determinations, we intend to retain a minimum assumption for dividend yield that is 50% of the base yield.
- Companies have a number of options to address financeability constraints that arise under the notional capital structure. We consider that equity has an important role to play in funding real RCV growth such that notional gearing does not increase materially from the opening level.
- Where equity is required to fund real RCV growth, we will provide an allowance for issuance costs of two percentage point of the equity raised. We will look for evidence of customer views where companies take steps to address financeability constraints through the reprofiling of cash flows between price review periods.

6.1.1 Changes from our draft methodology

There are no material changes to the overall approach to the financeability assessment set out in the draft methodology, as the approach has been established in previous determinations, and we had already considered stakeholder responses to the risk and return discussion paper in developing our draft methodology.

We have however confirmed a number of parameters relevant to the financeability assessment including the level of notional gearing, proportion of index linked debt, the guidance on dividend yield and the allowance for equity issuance costs.

6.2 Approach to financeability

6.2.1 Stakeholder views

CCW supported the approach to assessing financeability outlined in the draft methodology and some water companies also agreed with our general approach. However, the following issues were raised by companies, in relation to the approach to assessing financeability:

- Several companies stated that the allowed return is the key determinant of financeability, the primary driver of financial resilience in the sector, and so argued

that the financeability assessment is the most appropriate cross-check on the cost of equity.

- Some companies argued that changes proposed to the notional structure in the draft methodology undermines the financeability assessment and may risk undermining the financial resilience of the sector. Companies cited changes such as lower gearing, higher proportion of index linked debt, the retention of RPI debt in the notional company and full transition of determinations to CPIH, which they considered artificially enhance financeability but do not improve the underlying financeability of the sector. Some companies state that we should determine the notional structure before applying financeability checks and some suggested that it would be informative to also assess financeability based on the PR19 notional capital structure.
- A few companies said that financeability should also be considered on the actual capital structure basis.
- One company considered that whilst a financeability assessment against the notional structure may play part of the regulatory process, the requirement to provide Board assurance of financeability on the basis of the notional structure is not in line with the role that Boards should be expected to play.
- Another company suggested that to help company boards provide assurance there should be clarity on whether financeability assessment is testing the sufficiency of cashflows or cashflows and gearing based metrics.

6.2.2 Our final decisions and reasoning

Our policy approach to the financeability assessment has been established over past determinations and remains broadly consistent with the approach adopted in those determinations.

The financeability assessment considers whether, when all of the individual components of our determination are taken together (including totex, allowed return and retail margin, PAYG rates and RCV run-off), an efficient company with the notional capital structure will be able to generate cashflows sufficient to meet its financing needs. Consistent with previous price reviews, our approach is to assess financeability by reference to the notional capital structure rather than the actual capital structure.

We expect each company to provide board assurance that its plan is financeable on the basis of the notional capital structure. This assurance should take account of all components of the business plan, including our early view on the allowed return on capital for PR24. We expect the board to set out clearly the steps taken to provide assurance, including the consideration of the financial ratios.

It is imperative that each company's Board takes responsibility for the business plan that it submits for PR24. It is also imperative that each company can show that its business plan is

financeable on the notional basis. We recognise that individual companies' actual capital structures may be different from the notional company, for example in the level of gearing or the proportion of new and embedded debt. And we agree that considerations about the actual capital structure are matters for each company and its investors to manage, consistent with the clear allocation of risk and responsibility for a company's actual financing and capital structure. However, the basis on which the notional capital structure is set also provides clear signals about the allocation of risk and it is important therefore that companies provide assurance in their plans that their business plan is financeable on the basis of the notional capital structure.

We expect that the evidence supporting the board's assurance statement on financeability should be underpinned by the business plan and the accompanying financial model. Companies may want to consider reasonable sensitivities as part of that assessment, however we do not consider it relevant to test financeability by reference to the PR19 notional structure, as it is the notional structure set out in Chapter 7 that will apply in PR24.

Consistent with an assessment of credit ratings, an assessment of financeability is wider than solely an assessment of cashflows or cashflow financial metrics, or a test of the sufficiency of the allowed return on equity.

6.3 Assumption for index linked debt in the financial model

6.3.1 Stakeholder views

Our draft methodology raised the prospect of a potential increase in the proportion of index-linked debt in the opening notional balance sheet for PR24 compared with the level adopted at PR19. Companies were generally opposed to such an increase, although one company said that if there were an increase, it should be modest and in the order of five percentage points. Respondents raised the following issues:

- Several respondents stated that the approach for index-linked debt is inconsistent with the approach for determining notional gearing, which disconnects notional gearing from the average gearing for the sector.
- A mix of RPI and CPIH linked debt results in a mismatch between CPIH linked assets and RPI linked liabilities, which may undermine the financeability assessment. All index linked debt should be CPIH linked with the costs of swapping RPI to CPIH provided for.
- The conditions at PR19 that led to maintaining the level of index linked debt at PR19 still apply for PR24, such as immaturity of the CPI/CPIH bond market, the range of mix of debt across the sector and the rate of transition away from RPI.

- Increasing the proportion of index-linked debt may increase costs for the sector as index linked markets tend to be less liquid and more expensive.

6.3.2 Our final decisions and reasoning

In the draft methodology we said that the level of index linked debt that we would apply in the opening balance sheet for the notional company would be informed by the level of issuance across the sector. Companies that commented in this area generally did not support an increase in the level of index linked debt from the 33% figure used at PR19. Severn Trent Water said, whilst it does not agree with an increase, any change should be moderate to preserve the stability of the notional company over time.

Consistent with the methodology set out, and consistently applied since the publication of Financing Networks in 2006, our approach is to adopt a level of index-linked debt that reflects a level that is achievable by the sector.[21] Companies reported index linked liabilities amounting to 53.9% of the debt stock as at 31 March 2022. However, our analysis on debt instruments on water company balance sheets before the application of interest rate swaps showed index linked debt to amount to 36.7% of the debt stock as at 31 March 2022 (34.5% RPI linked and 2.1% CPI linked). We recognise that the use of swaps to achieve index-linked exposures is typically a feature that has been adopted by highly geared companies and hence we maintain a more conservative position for the notional structure.

As the proportion of direct index linked issuance remains broadly the same as for PR19 and a large proportion of index-linked debt remains linked to RPI, we see no reason to change the opening proportion from PR19 at 33% linked to RPI. This is consistent with our approach to setting the allowance for the cost of embedded debt.

Reflecting observations of the issuance of CPI linked debt by the sector, we propose that over the price control period, new debt will be raised by a proportion of CPI linked debt and fixed rate debt, such that the proportion of index linked debt (including accretion) does not fall below the opening level.

Finally, as our approach to setting the level of index linked debt in the notional balance sheet reflects an evolution of the approach adopted at previous price reviews, we do not consider there to be a convincing argument that customers should incur the costs of switching RPI linked liabilities in the notional balance sheet onto a CPIH basis, as the notional company should maintain sufficient headroom to maintain such debt instruments.

[21] Ofwat and Ofgem, 'Financing networks, A discussion paper', February 2006.

6.4 Dividend assumptions

As for previous price reviews, we will set an assumption for dividends in the financial model for the purposes of assessing financeability. And companies will need to explain the dividend yield and growth assumptions used for the financeability assessment in their business plans. This should be explained within the context of on our early view allowed return on equity and the expectations we set out for dividend policies that will apply in 2025-30.

Consistent with the guidance we set out on a reasonable base dividend yield for companies under the actual structures in section 9, we consider a yield of four percentage points should represent the maximum that is reasonable for a company with little real RCV growth, but that this should be notched down where RCV growth is significant. We discuss this issue further in section 6.6.

We will update our assessment of the reasonable base dividend yield for our draft and final determinations, taking account of our update to the allowed return on equity.

6.5 Target credit ratings and financial metrics

6.5.1 Stakeholder views

Most stakeholders broadly agreed that the assessment of financeability should focus on the metrics set out in the draft methodology. However, companies raised the following issues in relation to the financial metrics and the targets for each metric:

- The financeability assessment should be based on financial metrics calculated consistently with rating agency methodologies.
- Rating agency guidance should be used as an absolute floor on metrics as rating agencies may enact a downgrade if ratios fall below this level.
- Several companies stated that we should provide headroom to the minimum guidance at the target credit rating, with some companies referencing our separate proposed changes to the cash lock-up licence conditions as further reasoning for this.
- Equity metrics should be included in the financeability assessment.

Some companies have suggested that the notional structure should be financially resilient against severe but plausible downside shocks and not just financeable. As such the common stress scenarios specified for the assessment of financial resilience should be applied to the notional company.

6.5.2 Our final decisions and reasoning

Our financeability assessment is an 'in the round assessment'. We carry out an assessment of financial ratios to help assess the financeability of our determinations. Other factors we take into account include the requirement for companies to provide assurance that business plans are financeable, and a review of cost recovery rates proposed in business plans to ensure these are reasonable and do not store up a financeability problem beyond the period of the price control.

In the draft methodology we said that we expect companies to target credit ratings of at least two notches above the minimum investment grade (BBB+/Baa1) for the notional company, as we consider this provides a reasonable level of headroom to allow companies to cope with most cost shocks and it is consistent with the expectation that companies maintain headroom against the minimum credit rating requirement set out in the licence.

Only one company disagreed that BBB+/Baa1 was an appropriate target credit rating for the notional company, suggesting that it should be increased to A-/A3 to take account of the proposed increase to the cash lock-up trigger set out in our recent licence modification consultation paper and as a result of our proposed reduction to notional gearing.

Given the views expressed by companies about the target credit rating in PR19 business plans, and applied at PR19, and the evidence that water companies are able to access debt on reasonable terms at BBB+/Baa1, we do not agree it is necessary to increase the target credit rating for the notional company. Furthermore, as set out in our recent licence modification consultation,[22] we do not consider the proposal to amend the trigger for the cash lock up licence condition should impact on well-run companies with resilient structures.

Regarding concerns that a reduction in the notional gearing suggests a need to amend the credit rating target, we note that gearing is just one metric that is relevant to the financeability assessment and relevant to a credit rating. This is a point a number of companies have made in response to our previous discussion papers on the matter of financial resilience. Our view is that, consistent with approaches adopted by the credit rating agencies, financeability assessments should be carried out in the round, taking account of a range of factors. While the levels of individual financial ratios are important to an assessment, financial ratios are not the only issues relevant to the assessment.

We have also considered the arguments some companies have set out about the specific financial ratios that should be used for the financeability assessment, that certain financial ratios should represent an absolute floor or that we should target greater levels of headroom against defined financial ratios. We disagree with each of these points. As for previous price

[22] Ofwat, 'Consultation under sections 13 and 12 A of the Water Industry Act 1991 on proposed modifications to strengthen the ring-fencing licence conditions of the largest undertakers', July 2022, p. 11.

reviews, we intend to make an in the round assessment taking account of the financial metrics set out, including the alternative versions of the adjusted interest cover ratio (AICR) and the funds from operations to net debt (FFO/net debt), which are more closely aligned with the ratios used by Moody's and S&P. We note that credit rating agencies take into account a range of factors in determining credit ratings such as the trend in financial ratios over time and that a reduction in one financial metric below the published guidance does not necessarily result in a rating action.

A few companies have stated that we have not set out how we intend to assess equity financeability. In some cases, they suggested a requirement for the financial model to include additional metrics such as dividend pay-out ratio, dividend yield, hedge ratio and comparison between the allowed and expected return. We consider that equity financeability is best addressed by setting an allowed return on equity based on market data, and determinations with a risk and return package that allows efficient companies to have a reasonable prospect of earning the base allowed return. However, we have included dividend yield within the suite of financial metrics to reflect that our expectations on reasonable dividend policies include expectations on the base dividend yield. We are not convinced that the additional metrics proposed provide additional insights that are not already covered in the existing financial metrics or for assessing the balance of risk and return (which is already addressed with the use of the RoRE metric).

Contrasting views have been expressed by companies both on the weight that should be applied to each financial metric and the specific definition of each metric that is used for the purposes of assessing financeability. For example, Northumbrian Water and United Utilities stated that when we assess the financeability of the determinations, the alternative metrics of Gearing, FFO/Net debt and RCV/Net debt must be the ones used. This is in contrast to SES Water, that said it does not agree with the use of the FFO/Net debt alternative measure, believing that any metric which utilises a non-cash interest component (FFO/Net debt-alternative measure) is flawed and not an indication of financeability. Yorkshire Water, SES Water and Dŵr Cymru state that alternative measures should be a cash based FFO denominator. Given these issues, we consider it is for each company to explain the basis on which it has assessed the financeability of its business plan and the basis on which its board assurance statement is made. Companies should present their business plans using the metrics set out in the financial model, which aim to align, where possible, with those commonly used, but companies may also present additional financial metrics in business plans should they wish to do so, and so long as they are clearly defined.

Some companies have stated that Ofwat should apply stress testing to the notional company and in some cases that the standard set of scenarios should be run on both the notional and actual capital structures.

In our financeability assessment for draft and final determinations we will consider the headroom available against the minimum investment grade and the ability of the notional

company to withstand actual totex above allowances. However, we do not consider it is reasonable to ensure the notional company remains financeable under all plausible scenarios. For example, in most cases any financeability constraint against the minimum investment credit rating could be mitigated through the introduction of further dividend restrictions or equity injections.

6.6 Addressing a financeability constraint

6.6.1 Stakeholder views

Some companies agreed there is a role for equity in resolving financeability constraints. However, companies argue that means that the allowed return and the overall risk and reward package is sufficient to attract equity. Other companies raise issues with the approach to restricting dividends and/or applying equity injections, or consider the approach to be too narrowly focused on equity. Many companies suggested that the allowed return on equity is the most appropriate mechanism to solve financeability constraints.

- Wessex Water considered such steps signalled broader problems within the determination, potentially requiring a higher allowed return.
- Yorkshire Water considered it to be reasonable for increases in gearing to arise in periods of higher investment.
- Yorkshire Water and South Staffs Water argued that equity injections are not an effective solution to address the impact of operating cash flow challenges on interest coverage ratios. The companies argued the benefit can take time to realise if the equity injection remains as cash, meaning the cost/benefit of the equity injection can be considered disproportionate when compared to other solutions.

One company set out that it disagreed with our proposed approach to constraining dividend levels, as it considered issuing equity has an associated cost whereas varying dividends does not.

Finally, seven companies expressed support for the use of financial levers to improve financeability and, in addition, South West Water/Bristol Water commented that financial levers could be used to change the timings of revenues.

6.6.2 Our final decisions and reasoning

We consider equity must have a role to play in financing real RCV growth. We consider it is appropriate for large scale investment to be funded by a mix of debt and equity. We consider it reasonable therefore to take steps to maintain gearing close to the notional level, and therefore mitigate the pressure increased gearing places on interest coverage and debt metrics.

Some companies expressed the importance of equity financeability in assessing overall financeability and the need to maintain a minimum dividend yield to maintain investor appetite. One company did not agree with restricting dividends while requiring new equity for real RCV growth as issuing equity has an associated cost, while varying dividends does not.

We consider that investors in a company undergoing large scale investment may expect to receive more of their return as growth of its equity value. However, we do not expect a resilient, notionally structured, company that is performing in line with our determinations to totally forego dividends. Therefore, in consideration of the role of dividends in equity financeability, we will maintain a reasonable minimum level of 50% of the base dividend yield in the financial model. If further equity is required to support the level of real RCV growth, we will assume the injection of tranches of new equity. We will provide companies with an allowance of 2% for equity issuance costs in such cases. We consider this allowance is consistent with evidence from Severn Trent's recent share placing.

In business plans we expect companies to propose similar adjustments to dividends and, where necessary, to provide for new equity within the financial model where gearing strays significantly from the notional level because of substantial real RCV growth.

Should companies propose the use of financial levers in business plans to address a financeability constraint, this should be done in accordance with the guidance we set out for our assessment of PAYG and RCV run-off explained in section 7.

7. Cost recovery

Chapter 8 of our final methodology sets out the approach we expect companies to take to set appropriate rates for pay as you go (PAYG) and RCV run-off rates in business plans.

This section sets out:

- Our final methodology policies for cost recovery;
- A summary of stakeholders responses to the draft methodology; and
- Our final decisions and the reasons for those decisions

7.1 Our final methodology policies

Our final methodology says that:

- Companies should provide evidence setting out how they have determined the **PAYG** and **RCV run-off rates** proposed for each of the wholesale price controls.
- Companies should explain their **choice of PAYG rates** by reference to historical and forecast costs and explain how PAYG rates reflect proposed expenditure in 2025-30. We would expect companies to provide convincing evidence for PAYG rates in excess of the proportion of operating expenditure within their totex submissions
- Companies should explain their proposed RCV run-off rates by reference to the framework we set out, which takes account of **intertemporal fairness, affordability, our guidance on upper RCV run-off limits and financeability**. We expect companies to explain their chosen RCV run-off rates by reference to rates implied by average asset lives, and, reflecting expected levels of enhancement spend and pressures on customer affordability, we would not expect any company to propose RCV run-off rates that are higher than those allowed at PR19 or that are above the guidance set out in table 7.2.

7.2 Stakeholder views

In our draft methodology, we said that companies should propose PAYG and RCV run-off rates that balance the recovery of costs between different generations of customers. We proposed that we would set out a narrow range for RCV run-off rates within which companies will be required to evidence their choice of rate which best achieves a fair balance between current and future customers.

A number of companies agreed that cost recovery rates should be set to provide a fair balance between current and future customers. CCW and Dŵr Cymru agreed with the proposed approach to set narrow bands for RCV run-off, South West Water/Bristol Water agreed in principle with setting a range and Yorkshire Water agreed with the principle of considering remaining asset lives despite a preference to maintain the PR19 approach with adequate challenge to proposed run-off rates. Portsmouth Water said that company run-off rates should be consistent with estimations based on average capital maintenance costs, and/or the remaining weighted average asset life.

Objections raised by companies focussed on our proposed approach to setting narrow acceptable bands for RCV run-off rates by reference to remaining asset lives. Views were expressed that:

- the proposals rely on a sub-set of relevant evidence and is unlikely to be representative of any individual company. Each company will have its own make history and make up of assets;
- there are alternative appropriate methodologies to determine RCV run-off rates, such as average capital maintenance costs, current cost depreciation of gross modern equivalent asset values (GMEAV);
- the comparison of RCV run-off with capital maintenance set out in the draft methodology is incomplete as it does not take account of enhancement expenditure and actual historical expenditure;
- the draft methodology did not provide any indication of the narrow bands or how the bands would be derived; and
- the approach is in contrast to a consideration within the draft methodology related to nature based solutions.

A number of companies suggested that companies should be able to propose RCV run-off rates outside of the narrow bands if companies can evidence this as the natural rate. Severn Trent and Hafren Dyfrdwy suggested that the final methodology should provide a guidance range rather than a narrow band. And Wessex Water requested that flexibility should be maintained if companies are to respond flexibility to delivery of solutions for customers.

A few companies stated that flexibility is needed to ensure that bills stay affordable and investment plans are financeable given that companies are expected to put forward PR24 business plans with an increased level of investment focused on the long term. The companies say that the option to vary PAYG and RCV run-off rates provides companies some flexibility to achieve this.

CCW agreed with our proposal that companies should make explicit any changes to the natural rates of PAYG and RCV run-off, and suggested there may be merit in taking customer views into account. The investor representation group, Global Infrastructure Investor

Association (GIIA), referenced that to ensure bills remain affordable steps could be taken to adjust PAYG and RCV run-off rates.

7.3 Our final decisions and reasoning

In this section we set out our approach to assessing PAYG and RCV run-off rates proposed by companies in their business plans. We accept companies may need a degree of flexibility in proposing their cost recovery rates noting that if cost recovery is too slow, companies may have insufficient resources to finance their operations and maintain the capability of their assets, with additional costs borne by future customers who may also end up paying too much for their services. However, if cost recovery is too fast current customers may be paying too much, and if this persists over the long-term, companies are likely to deplete their RCV which may lead to financeability constraints in the future. Neither scenario protects the interests of customers over the long-term.

Given the significant impact that cost recovery rates can have on customer bills, it is important companies provide justification for their chosen cost recovery rates in their business plans. In the following sections, we discuss our expectations for company business plans on PAYG and RCV run-off.

7.3.1 PAYG

We expect each company to set out its proposed underlying PAYG rates for each wholesale control in its business plan tables. Companies may propose adjustments to the base PAYG rates in the business plan tables where it considers it is appropriate to do so.

We consider the most appropriate starting point for calculating PAYG rates is operating costs as a proportion of totex. This was the approach that the majority of companies took at PR19. Some companies also included capitalised infrastructure renewal expenditure within PAYG rates. Where companies propose to diverge from using the proportion of opex as a starting point, or propose adjustments to the base rates for PAYG, we expect companies to provide sufficient and convincing evidence that this is in the best interests of customers, both now and in the future.

Where a company proposes to defer PAYG revenue to future periods, we expect the company to consider the impact on the financeability of the company on the basis of the notional capital structure. The company should confirm that it can also manage the effects of such deferral under its actual capital structure.

We would expect the proportion of opex and capex for base totex to be broadly consistent over time, whereas enhancement totex is primarily capital in nature. Using cost information in business plan tables, we may disaggregate PAYG rates between base and enhancement

costs. Where we see significant changes in PAYG rates associated with base totex, we would expect to see sufficient and convincing evidence to support the variation in business plans.

Where totex allowances in our draft determinations differ from business plans, we will assume any change in base totex is in proportion to original operating and capital costs. We will estimate the impact of changes to enhancement costs on the overall split of opex and capex and adjust PAYG rates accordingly. We will consider the evidence alongside any representations companies make on our PAYG rates for final determinations.

7.3.2 RCV run-off rates

The RCV run-off allowance represents the recovery of previous investment by investors held in the RCV. Historically it has provided funding for companies to maintain the capability of the networks and other non-infrastructure assets. We set out in the draft methodology that at PR19 the planned expenditure for maintenance and renewals requested in business plans was, in most cases, less than the total costs recovered.[23] As such, we consider there is scope for a number of companies to reduce RCV run-off rates at PR24.

At PR19, average annual RCV run-off rates for the water companies at final determinations ranged from 3.7% to 7.1%. The upper end of the range equates to the amortisation of opening RCV by approximately 30% over a period of five years and may mean that current customers are paying more than their fair share for past investments. If sustained, this could result in a significant real terms reduction to the RCV over price review periods, with potential detrimental impacts to the ability of a company to withstand cost shocks and maintain financial resilience.

In our draft methodology we set out that we were minded to set a narrow range for RCV run-off rates for each wholesale control that we consider represents a reasonable balance of cost recovery between current and future customers. We set out that we considered this range is best informed by a consideration of average remaining lives of the assets utilised in each control to provide the services to customers, while ensuring that companies have sufficient resources to maintain the capability of their assets.

We have carefully considered the stakeholder responses to the draft methodology. We have also considered the significant role that RCV run-off plays in the level of customer bills over time and of other matters such as the importance of RCV run-off to certain financial ratios. Taking account of responses from stakeholders, we set out a framework that we will apply in assessing company-proposed RCV-run-off rates for wholesale controls. The framework is an evolution of the approach proposed at draft methodology and takes account of:

[23] Ofwat, 'Creating tomorrow, together: consulting on our methodology for PR24, Appendix 10 – Aligning risk and return', pp. 31-32.

- **Intertemporal fairness** such that the RCV is allocated fairly to each generation of customers in a way that represents how previous investment will provide services to the customers. We consider run-off rates that are based on average remaining asset lives that can be derived from published annual reports to be a reasonable starting point.
- **Affordability** for customers. RCV run-off represents a significant element of allowed revenue and therefore customer bills. Companies will need to provide evidence that they have considered the impact of their proposals on customers both now and in the longer term and they should provide evidence of customer views on the chosen bill profile incorporating both the PAYG and RCV run-off proposals.[24]
- **Our guidance on acceptable upper limits**. Reflecting expected levels of enhancement spend and pressures on customer affordability, we would not expect companies to propose RCV run-off rates that are higher than those allowed at PR19 or that are above the guidance set out in table 7.2.
- **Financeability** of the notional company, such that the choice of RCV run-off rate balances the need to manage financeability in both the short and the long term.

We now set out, in further detail, how we expect each company to put forward its proposals on RCV run-off for our assessment.

Intertemporal fairness

The RCV represents the unrecovered investment in a company by debt and equity investors; it is not a direct measure of net investment. However, we consider calculations of RCV run-off based on the remaining asset lives of a company's asset base to be a reasonable starting point to assessing the allocation of costs to different generations of customers and therefore a reference point from which companies should explain their choices. Companies will need to provide sufficient and convincing evidence in support of run-off rates that are higher than those implied by such calculations, taking account of the framework set out above.

We consider run-off rates that are based on average remaining asset lives that can be derived from published 2021-22 accounts to be a reasonable starting point. We set out average remaining asset lives (calculated as net book value/depreciation charge for the year and associated depreciation rates (1/average remaining asset lives) for the sector in Table 7.1. We set out our calculations by company in Annex B.

[24] Where specific customer research is being done, we expect companies to achieve the standards for high quality research. See standards for high quality research.

Table 7.1 Implied depreciation rates and RCV run-off rates at PR19 for each wholesale control

	Sector average		Sector median	
	Average remaining lives	Depreciation rate	Average remaining lives	Depreciation rate
Water resources	33.9	3.54%	26.9	3.72%
Water network plus	28.2	3.66%	29.8	3.36%
Wastewater network plus	30.1	3.43%	29.7	3.36%
Bioresources	13.7	7.75%	13.5	7.40%

Source: Ofwat analysis of company annual performance reports for the year ended 31 March 2022 and PR19 final determinations excluding adjustments.

There are reasons why it may be appropriate to use a RCV run-off rate lower than that implied by average remaining asset lives. For example, where there is an increasing population, a larger number of customers will benefit from the use of the current asset base in the future (subject to capacity constraints of the existing asset base).

We agree that existing RCV that has been generated from investment over a number of years will have assets at various stages of their life cycles. And that new RCV created over 2025-30 should be recovered over the whole economic lives of the investment programmes that resulted in the new RCV. Therefore, we agree that it may be reasonable to assume that RCV run-off rates for new investment are lower than for existing RCV. Business plan tables provide for companies to propose separate RCV run-off rates for RCV existing as at 31 March 2025 and for new investment over 2025-30.

We consider that applying RCV run-off rates on a reducing balance basis is the most appropriate approach for RCV that has been originated over a period of time. This is because, with assets at various stages of their life cycles, we would expect certain of those assets to become fully depreciated. However, business plan tables allow companies to propose different RCV run-off rates for each year. We expect companies to provide sufficient and convincing evidence where a different approach, such as replicating straight line depreciation is adopted.

Affordability

Early indications of the potential scale of the investment programme in 2025-30 suggest that companies are expected to face substantial investment needs at PR24 and beyond. Such programmes may lead to significant pressures on bills for customers of some water companies at PR24. RCV run-off rates provide a lever that companies can use to manage affordability constraints for customers. Therefore we expect companies to consider affordability of customer bills when determining run-off rates.

Companies will also need to provide evidence that they have considered the impact of their proposals on customers both now and in the longer term, and that the chosen bill profile is supported by customer views.

Acceptable upper limits

Reflecting expected levels of enhancement spend and pressures on customer affordability, we would not expect any company to propose RCV run-off rates that are higher than those allowed for the company at PR19.

Table 7.2 sets out our guidance on expected upper limits of RCV run-off rates. The upper limits are informed by average and median RCV run-off rates at PR19 and the range of depreciation rates implied by average remaining lives of assets in each control.

Table 7.2 Guidance on upper limits of acceptable RCV run-off rates

	Water resources	Water network plus	Wastewater network plus	Bioresources
Upper limit	4.5%	4.5%	4.5%	8.0%

The upper limits are closely aligned to the average rates for each wholesale control applied in the PR19 final determinations prior to adjustments. We set out the RCV run-off rates used at PR19 excluding adjustments in Table 7.3.

Table 7.3 Average RCV run-off rates at PR19 for each wholesale control (excluding adjustments, such as for further transition to CPIH and financeability)

	Water Resources	Water Network plus	Wastewater network plus	Bioresources
Anglian Water	4.96%	3.91%	5.06%	6.00%
Dŵr Cymru[1]	3.45%	4.08%	3.09%	6.59%
Hafren Dyfrdwy	6.30%	6.30%	4.30%	-
Northumbrian Water	5.51%	4.79%	4.63%	7.28%
Severn Trent Water[2]	4.35%	4.06%	4.66%	6.21%
South West Water	2.64%	4.69%	5.12%	8.54%
Southern Water	6.75%	3.85%	5.24%	9.92%
Thames Water	4.26%	4.21%	5.40%	4.97%
United Utilities2	3.26%	5.07%	4.35%	8.97%
Wessex Water	6.40%	3.99%	3.98%	10.25%
Yorkshire Water	2.48%	3.46%	3.68%	9.39%
Affinity Water	7.48%	3.89%		

Bristol Water	2.37%	5.47%		
Portsmouth Water	4.04%	4.39%		
SES Water Water	7.07%	7.08%		
South East Water[3]	3.98%	3.31%		
South Staffs Water	9.71%	6.39%		
Average	5.00%	4.64%	4.50%	7.81%
Median	4.35%	4.21%	4.63%	7.91%

1. Adjustments were made to RCV run-off rates for Dwr Cymru to support its enhanced social tariff and to address a financeability constraint.
2. Adjustments were made to RCV run-off rates for RPI linked RCV to replicate full transition to CPIH for Severn Trent Water and United Utilities.
3. Adjustments were made to RCV run-off rates for RPI linked RCV for South East Water to address a financeability constraint

Source: PR19 final determinations adjusted by Ofwat as described.

For the network plus controls, the upper limits are approximately 1.0% above the average implied depreciation rate. Based on our estimation of average remaining lives for water resources and the network plus controls and average and median RCV run-off rates from PR19, we see no reason to apply different limits for water resources or the network plus controls. Our guidance for the bioresources controls is also based on PR19 RCV run-off rates. Our analysis suggests bioresources run-off rates may need to be higher than for other wholesale controls reflecting that bioresource assets tend to be a mix of shorter life assets, without the underground networks and large scale reservoirs seen in other controls.

The upper limit represents a maximum we expect companies to propose for RCV run-off rates in business plans. If companies do not provide sufficient and convincing evidence for rates that are in excess of the RCV run-off rates implied by average remaining lives for existing assets or full economic lives for new investment, we may intervene to reduce rates in our determinations in line with our guidance or the level set at PR19, whichever is the lower.

Financeability

We recognise that RCV run-off rates are of importance to some financial ratios used in credit assessment, notably FFO/net debt as assessed by S&P. As set out above, we consider measures of intertemporal fairness based on average asset lives represent a reasonable starting point for the assessment of RCV run-off (and indeed it is possible run-off rates could be lower than the rate implied by asset lives). As the upper limits proposed above are well above the run-off rates implied by average remaining asset lives, we would not expect to accept rates that are above the levels stated in our guidance.

8. Financial resilience

Chapter 9 of our final methodology sets out our expectations that business plans submitted by companies are set in the context of allowing them to maintain financial resilience over the period 2025-30 and beyond.

8.1 Our final methodology policies

Each company should provide a **Board assurance statement** that the actual company is financially resilient over the period 2025-30 and beyond under its business plan. We expect the statement to set out the steps the Board has taken to enable it to make that statement, supported by evidence of the factors it has taken account of, including relevant financial metrics used to support the Board's statement. We expect the plan to demonstrate the basis on which the assessment has been carried out, including how the base case and downside scenarios have been established and assessed.

It is for the Board of each company **to identify, assess and manage the principal risks relevant to that company**. We expect companies to draw on these risks to develop scenarios (including combined scenarios) to stress test their business plans when assessing financial resilience. Companies should explain any proposed mitigation measures. We expect the board to consider the risks associated with any potential variance from its business plan. Alongside this we specify a **minimum suite of scenarios that we expect companies to consider and to stress test.**

We will assess the evidence provided by companies on financial resilience as part of the Quality and Ambition Assessment of business plans.

8.2 Stakeholder views

In response to the draft methodology, most stakeholders agreed that Board assurance on financial resilience should be provided alongside business plans and that the common stress testing scenarios proposed are a good basis of financial resilience alongside the bespoke scenarios for each company.

A few companies raised the following points in relation providing board assurance:

- views were expressed that it is likely to be challenging for the Board to provide uncaveated assurance of financial resilience on the basis of the draft methodology as companies do not have full control over financeability and financial resilience;

- it is important that flexibility remains to evidence targeted credit ratings for the actual company where these differ from target credit ratings for the notional company;
- a request was made about the need for clarity on the approach that companies should take for making long-term assumptions to ensure consistency and the period beyond 2030 that should be covered by the assessment due to the uncertainty around future regulation; and
- a few companies questioned the scale of expectations of board assurance on grounds of proportionality.

In relation to the proposed common stress tests, some companies agreed that it was important that a common scenario for higher inflation is included given the current economic outlook. South West Water/Bristol Water suggested that, whilst the stress scenarios proposed in the draft methodology seemed sensible, these were not sufficient and the use of one or more Monte Carlo simulations should be used. Anglian Water did not consider that all of the standard downside scenarios were plausible in the current economic climate and some companies suggested changes to the levels of some scenarios.

Anglian Water state that standard scenarios should include plausible downside scenarios, suggesting the suite proposed in the draft methodology were not plausible in the prevailing economic climate.

Wales Environment Link stated that the proposed measures for financial resilience are not fit for purpose for Wales and hence alternatives should be suggested. They mention that they are concerned with pollution being a cheap option.

A few companies expressed opposition to the proposals put forward in the separate consultation to strengthen the regulatory ring fence. We will take into consideration the responses from water companies and other stakeholders as we take that work forward.

8.3 Our final decisions and reasoning

Our policy approach to financial resilience was established at PR19 and remains largely unchanged. It is essential that each company can demonstrate its financial resilience and the management of financial risks for the actual capital structure. Having considered the responses, our policy remains as set out in the draft methodology. We set out our expectations, where appropriate setting out our response to the views of stakeholders in the following section.

Companies should set out the credit ratings targeted for the actual company in their business plans. Where the target credit rating for the actual company differs from that targeted for the notional company structure, the board assurance statement should explain

and provide evidence as to why this is appropriate and in the best interests of customers and the environment.

In response to questions raised about Board assurance on financial resilience, we consider that, as providers of an essential service, it is imperative that each company's Board takes responsibility for ensuring that its business plan is set in the context of allowing the company to maintain financial resilience over the period 2025-30 and beyond, and explains the basis on the assurance statement has been made. We expect companies to apply the downside scenarios prescribed in the following section to facilitate our assessment of business plans and to allow us to draw comparisons between companies. We consider companies must remain responsible for assessing scenarios specific to their own circumstances, and, in doing so, should set out the underlying assumptions or basis on which their assessment has been carried out. Board assurance requirements are considered further in chapter 10.

Companies are required to consider financial resilience beyond the current price control period in their long term viability statements by making assumptions around future revenue allowances. Therefore we consider it is reasonable for companies to assess financial resilience in the context of their business plans for the period 2025-30 and beyond by setting out their assumptions for the longer term.

Chapter 9 sets out that each company should be able to demonstrate that its actual capital structure provides sufficient headroom to enable it to continue to deliver its commitments under a range of stressed conditions. Whilst each company remains responsible for determining the downside scenarios that are most relevant for its purposes, drawing links to their own long term viability statements, we prescribe a number of scenarios that we expect companies to assess:

- Totex underperformance (10% of totex) over 5 years.
- ODI underperformance payment (3% of RORE) in one year applied in year 2.
- Inflation below the assumption for the base case in the business plan (2% below). This scenario should be applied at 2% below in each year of the price review period.
- Deflation of -1% for 2 years, followed by a return to the long term inflation target. The deflation should be in years 1 and 2 to allow time for the return to the long-term inflation target.
- High inflation; a 10% spike in inflation with a 2% increase in wedge between RPI and CPIH, followed by two years at 5% and a 1% increase in wedge.
- Increase in the level of bad debt (20%) over current bad debt levels applied in years 2 and 3.
- Debt refinanced as it matures, with new debt financed at 2% above the forward projections of interest rates.
- Financial penalty – equivalent to 6% of one year of Appointee turnover applied in year 2.

For all scenarios, companies should clearly state the proposed mitigations that may be undertaken to address any financial resilience constraint it identifies.

At PR19 some companies carried out reverse stress testing to demonstrate headroom within their structures. Drawing on this, the business plan tables require companies to determine the level of headroom within their financing arrangements and set out the level of that headroom that is eroded in each of the downside scenarios.

As set out in Chapter 7, periods of high inflation are likely to have a positive impact on the financial resilience of most companies as it provides scope for companies to reduce gearing. However, there may be circumstances where high inflation has a negative impact on financial resilience, for example if a company has a significant amount of RPI linked debt, and this is layered onto a cost base that may increase faster than CPIH. Therefore, we have prescribed a common scenario for higher inflation. We also specify a scenario for deflation, for example should recent changes to energy prices reverse.

We also expect companies to model appropriate combined scenarios to take account of likely combinations of their specific risk factors. Companies should set out the stresses applied to each of these factors, and why they consider these levels represent severe and plausible scenarios.

Where the results of a scenario indicate that the company's finances will not be resilient, we expect companies to set out clearly the mitigations they will take to address that situation, together with supporting evidence (for example, the level of evidence underpinning the commitment of investors if the mitigation includes the injection of equity) or set out sufficient and convincing evidence as to why the scenario will not arise if they consider that is the case.

It is possible that a company's view of the reasonable revenue and cost allowances differs from those that we might consider reasonable for an efficient company. In the business plan submission, companies should set out the possible impacts on their financial resilience of such plausible differences, the consequences thereof and the likely mitigation measures in the event that our view of efficient final determination allowances differs from those requested in business plans.

Whilst most companies agreed the common scenarios are a useful starting point for comparing financial resilience across the sector, some companies proposed different common scenarios. For example, United Utilities suggested higher extremes of inflation and bad debt are viable given the current environment, South West Water/Bristol Water suggested that outcome delivery incentive performance should be tested in more scenarios, whilst Anglian Water did not believe it is plausible that deflation could occur for two years.

The common scenarios we set out are not intended to be an exhaustive list and it is each company's responsibility to demonstrate its financial resilience. Each company should set out its own specific scenarios, which may need to go beyond the common scenarios set out above. Companies should also propose scenarios which combine their specific risks.

CCW suggested there may be merit in specifying the combined scenarios that companies should stress test. However, we seek to understand each company's views of combined scenarios that are relevant for its own circumstances, taking account of dependencies between individual factors.

We expect companies to explain the impact of the stress tests on their ability to maintain financial metrics, their credit rating, and their ability to service debt. We also expect companies to explain management's plans to address any concerns arising from the stress testing, including any plans to raise additional debt or equity.

A small number of companies considered that the common stress scenarios should be tested in the PR24 financial model under the actual capital structure to allow companies to test financial resilience in a manner which appropriately captures Ofwat's updated methodology at PR24.

We have considered whether companies should use the PR24 financial model to prepare forecasts and stress testing under its actual capital structure. However, we expect each company to have its own financial model that incorporates elements of its own capital structure that cannot readily be replicated in a sector-wide model. Business plan tables require companies to populate information about the financial projections for their actual capital structure based on their own assessment and financial projections.

9. Dividend policies

Chapter 9 of our final methodology sets out that in a sector that provides an essential public service, companies must demonstrate how the decisions they make in declaring and paying dividends take account of matters that include meeting obligations and delivery for customers, communities and the environment.

9.1 Our final methodology policies

We expect companies to set out how dividend policies for the period 2025-30 show alignment between returns to owners and what is delivered for customers, communities and the environment. We will assess the policies proposed by companies as part of the Quality and Ambition Assessment of business plans.

Companies should commit in their policies to clearly explain the payment of any dividend, including the base dividend yield, by reference to delivery of their obligations and commitments to customers. We set out our expectations in section 9.4.

9.2 Stakeholder views

CCW and many companies either agreed with our expectations for dividends and dividend policies, or said that their existing policies are already aligned with our expectations. As such, our expectations are unchanged from the draft methodology.

There were a small number of points raised by companies as follows:

- Further regulatory intervention in dividend policy is unnecessary at a time when shareholder support is more important than ever.
- Expectations on base dividend yield should be net of distributions made to fund inter-company interest that is paid back to the regulated company.
- CCW strongly considered that non-operational outperformance gained from high inflation ought to be retained or reinvested. However, some companies urged caution when considering the benefits of high inflation where real price inflation experienced by companies may be in excess of CPIH or RPI and where investors use infrastructure assets as a hedge against their own inflation linked liabilities.

9.3 Our final decisions and reasoning

Our view remains that it is important for companies to demonstrate how dividends decisions take account of matters such as performance delivered to customers or environmental performance and so we consider it remains important to encourage companies to meet our expectations in this area. Therefore we will assess companies' dividend policies as part of the Quality and Ambition assessment of business plans.

Our July 2022 consultation on proposals to strengthen the regulatory ring-fence set out a proposal to modify the dividend policy licence condition.[25] We have not yet published our decision in relation to the consultation, however, our expectations for a reasonable dividend policy that were originally set at PR19 remain the same, and are consistent with the consultation proposals. We expect dividend policies that apply in 2025-30 to align with licence requirements and further guidance we publish as part of our work on the dividend policy licence condition, which we expect to publish alongside our decisions on strengthening the regulatory ring-fence in early 2023.

9.4 Our expectations for dividend policies

The PR19 final determinations,[26] and our revised Board Leadership principles 'Board leadership, transparency and governance – principles' published in January 2019, set out a guiding provision that companies should publish an explanation of dividend policies and dividends paid, and how these take account of delivery for customers and other obligations (including to employees) in Annual Performance Reports from years ending 31 March 2020 onwards. The disclosure requirements for the statement on dividend policy and explanation of dividends paid are set out in the Regulatory accounting guidelines as updated from time to time.[27]

Our expectations for dividend policies include that companies should set out:

- details underpinning their approach to dividends and factors that influence dividends transparently in their published dividend policy;
- how their approach takes account of delivery for customers;
- the dividend policy in their Annual Performance Report. This should be clear and is consistent with all other narrative in relation to dividend policy or dividends

[25] Ofwat, 'Consultation under sections 13 and 12 A of the Water Industry Act 1991 on proposed modifications to strengthen the ring-fencing licence conditions of the largest undertakers', July 2022. The proposal to modify the dividend policy licence condition would require that dividend policies and dividends declared or paid should take account of service delivery for customers and the environment over time, current and future investment needs and financial resilience over the long term.
[26] Ofwat, 'PR19 final determinations: Aligning risk and return technical appendix', December 2019 pp. 117-120, section 9.1.4.
[27] Ofwat, 'RAG 3.13 – Guideline for the format and disclosures for the annual performance report', May 2021.

declared or paid within the remainder of their Annual Performance Report, within their statutory accounts and within any other publication; and
- any changes to their dividend policy in their Annual Performance Reports.

Our expectations in relation to the explanation of dividends declared or paid include that companies should:

- set out how total dividends declared or paid have been determined and how they are consistent with the company's dividend policy;
- clearly explain and provide justification for any deviations from the policy.

The factors that companies should take into account in the design and application of their dividend policies should include:

- performance in meeting their obligations including their statutory and licence obligations;
- the commitments they have made to customers;
- out/underperformance against regulatory metrics and benefit sharing;
- employee interests;
- pension obligations;
- actual capital structure, including whether, for a company with high gearing, it has considered maintaining the same dividend yield as under our notional structure;
- the need to finance future investment (RCV growth) or fund costs not covered by the price review; and
- financial resilience.

Based on our early view of the allowed return in the final methodology, we consider that a base dividend yield of up to four percentage points (in nominal terms) is reasonable for companies that have little real RCV growth and that perform in line with their determinations for 2025-30. Based on our early view of the allowed return in the final methodology, we consider four percentage points remains a reasonable base dividend yield for the period 2025-30. However, there are a number of reasons why a base dividend yield below four percentage points may be appropriate for individual companies, such as where companies must fund significant investment programmes, address pension funding concerns or operational issues, or improve financial resilience.

We consider that companies' dividend policies should be applicable to the total dividend declared or paid, including any dividend paid by the appointee for any reason, including dividends paid to a holding company to allow it to pay interest on an intragroup loan from the appointee. From a customer perspective any dividend represents an outflow of cash from their water company, whether the dividend is used to fund holding company costs or paid to ultimate shareholders. And as it is the regulated company that holds the licence, public trust

is served best where the level of dividend is explained in relation to performance of the regulated company, irrespective of the obligations of the wider group. Therefore we consider that when companies set out how dividends declared or paid have been determined and how they relate to their dividend policy, this should be with reference to total dividends declared or paid. In all cases, we expect companies to clearly justify and be transparent about these payments, explaining all factors that have been taken into account. References to dividends declared or paid should include all forms of distributions.

Finally, we note that benefits that accrue to equity from the consequences of high inflation (for example where nominal fixed rate debt is in place) are not linked to operational performance. As such these benefits should be retained or reinvested and not distributed as outperformance if companies are to meet our expectations.

10. Performance related executive pay

We set out our expectations on performance related executive pay in Chapter 9 of our final methodology and in this appendix.

10.1 Our final methodology policies

Companies should set out their policies for performance related executive pay in their business plans. We will assess the policies proposed by companies as part of the Quality and Ambition Assessment of business plans.

These policies should take account of the expectations set out in this final methodology including that:

- the criteria for awarding short and long-term performance related elements are substantially linked to stretching delivery for customers, communities and the environment;
- performance targets used to determine performance related executive pay are stretching by reference to business plans, and remain stretching; and
- in reaching decisions, remuneration committees should exercise their discretion and judgement by reference to overall performance delivery for customers, communities and the environment as well as performance against specific metrics when deciding on what, if any, award to make.

We also expect companies to take account of the February 2022[28] and December 2022[29] letters to the Chairs of Remuneration Committees from the Ofwat Chief Executive.

10.2 Stakeholder views

CCW agreed with our proposals for performance related executive pay in the draft methodology saying that companies need be transparent about how executive pay links to performance including delivery of obligations and commitments to customers, communities and the environment. Many of the water companies also either agreed or said that their performance related executive pay was aligned with our expectations. A number of companies set out their current policies.

[28] Ofwat, 'Letter to Chairs of Renumeration Committees regarding performance related executive pay', 18 February 2022
[29] Ofwat, 'Letter to Chairs of Renumeration Committees regarding performance related executive pay', 5 December 2022

United Utilities Water said that its Remuneration Committee retains and exercises discretion to adjust outcomes where it deems this appropriate for specific or overriding issues. It sets out that remuneration targets need to be set dynamically in order to calibrate performance and act as a strong incentive, in order to provide flexibility to build in new and emerging issues during the price control period and to ensure that targets remain appropriate and stretching throughout the period if, for example, there was a miscalibration in the price determination package. It also highlights the role that other stakeholders play in the development and approval or rejection of final arrangements, and that listed companies are required to agree new remuneration policies with shareholders at least every three years, which means that a remuneration approach cannot be fixed for a whole five-year price control period.

Thames Water said that, whilst it agrees with the importance of linking performance related executive pay clearly to its in-year and in-period plans, it is also important to reward efforts that lead to longer term improvements, recognising that current performance is not where it should be. They also stated that there is a need for flexibility of both short- and long-term incentive plans to achieve goals.

10.3 Our final decisions and reasoning

In this section we set out our expectations for performance related executive pay policies for the period 2025-30. We confirm that we will assess the companies' performance related executive pay policies as part of the Quality and Ambition Assessment of business plans.

We recognise that remuneration polices to reward executives may evolve over time to take account of new priorities and information, and would expect them to do so. However, we consider that companies' initial performance related executive pay policies over 2025-30 should be aligned with our expectations, and that companies can commit to ongoing alignment in this respect, whilst retaining flexibility.

We consider the expectations set out below provide clear guidance to enable companies to consider their policy for PR24.

- **Alignment to delivery for customers and the environment** – policies should demonstrate that the criteria for awarding both the short- and long-term elements of performance related executive pay demonstrate a substantial link to stretching delivery for customers. This includes delivering on environmental commitments and obligations.

  Examples of specific measures relating to delivery for customers include C-MeX or measures such as interruptions to supply. Appropriate metrics may also include the totex and the outcome delivery incentive components of RoRE where

companies have identified RoRE performance as part of their incentive scheme. In addition metrics relating to the health and wellbeing of company employees may also be relevant. However any financial measures which are for the benefit of investors cannot be considered as relating to delivery for customers.

- **Stretching targets** – policies should demonstrate that stretching targets are used for criteria which are related to delivery for customers and the environment. Companies will need to consider what is stretching in the context of the metrics being used. An example of a target which could be considered stretching is one linked to sector upper quartile performance.

- **Overall performance** – policies should explain how remuneration committees will take into account overall performance delivered for customers, communities and the environment as well as performance against specific metrics when deciding on what, if any, award to make. Policies should set out what factors committees will take into account when considering overall performance, including poor performance. They should also be clear that poor performance overall will not be rewarded and clearly justify and explain any exceptions, for example to reflect stretching longer-term turnaround targets.

- **Underpins, malus and clawback** – policies should set out the approach to any underpinning arrangements, for example, by reference to overall performance, and any malus and clawback provisions and how and when these would be used. Recognising the limitations of intervention after the event, we also expect policies to set out how remuneration committees will take account of the existence of any enforcement activity, actual or pending, including through the use of deferral, or binding malus and clawback arrangements.

Where a policy applies at a group level, we expect the policy to take account of the position of the regulated company within the group. We expect that where directors have shared responsibilities within the group, the policy should clearly explain how it applies to the regulated company. We also expect that the customers of the regulated company only contribute to any performance related executive pay awards that relate to the performance of that company.

We expect companies' remuneration committees to ensure that targets remain appropriate, particularly given the changing circumstances in which companies operate, and stretching throughout the 2025-30 period, to ensure that only truly stretching performance is rewarded. There should be on-going rigorous challenge as to how the policies are applied and committees should use their discretion to override formulaic outcomes, where appropriate. In particular, remuneration committees should use their judgement to take into account companies' overall performance when determining whether any award is appropriate in any particular year.

Companies should commit to transparent and accessible reporting of policies and any changes to them and, where there are changes, the reasons for these. There should also be transparent reporting of the application of the policy in each year to include clarity on how overall performance has been assessed; and in relation to individual metrics being used, the targets set for those metrics, performance against each of them and the resulting award, if any, for each metric. These reporting requirements are reflected in our Regulatory Accounting Guidelines and may be updated from time to time.

Where awards are funded by shareholders, we still expect to see clarity of the quantum of such awards, and the reasons why they are made. There should be clarity about all the incentives that are applied to the performance of senior executives so that it is possible for stakeholders to see how, and to what extent, these are aligned to delivery for customers, communities and the environment.

Companies should also be clear where their remuneration committees have used their discretion to adjust the formulaic outcomes of short- and long-term schemes in the year. They should also explain whether any underpinning arrangements, deferral, or malus and/or clawback provisions have been applied.

We will, if necessary, update the expectations set out above to reflect any new information we receive in good time ahead of the submission of business plans.

11. Voluntary sharing of outperformance

11.1 Our final methodology policies

Companies should set out their proposals for voluntary sharing of outperformance in their business plans. We will assess the policies proposed by companies as part of the ambition assessment in our Quality and Ambition Assessment of business plans.

Many areas of the price control package are subject to incentive mechanisms (for example totex and performance commitments) such that the interests of investors and customers are aligned. However, there are other areas of the price setting process that may not be subject to sharing mechanisms and where companies and their investors could benefit, for example, because of outperformance of the cost of debt, high inflation, possible taxation gains not covered by reconciliation mechanisms or miscalibration of the price determination package. Therefore, we encourage companies to come forward to commit to share such outperformance with customers on a voluntary basis.

11.2 Stakeholder views

CCW said that it has been a strong advocate of companies sharing outperformance with customers especially in those areas where there are currently no sharing mechanisms. CCW also said that it sees voluntary sharing arrangements as a pre-requisite to getting outstanding status in business plan incentives.

Some companies agreed with the proposals we set out in the draft methodology or with the principles of voluntary sharing. However, companies raised the following issues:

- Voluntary sharing should be developed at a company level in accordance with individual circumstances and should take into account the capacity of each company to outperform.
- Outperformance is predominantly due to the single allowance approach to the cost of debt which would be best addressed by setting individual company allowances.
- Outperformance could be reinvested into improving short or long term approaches without being penalised for incurring the additional investment.
- All forms of voluntary sharing should be taken into account to avoid encouraging companies to close existing successful schemes in order to create compliant schemes.
- There is no clear market failure that requires the introduction of a voluntary sharing mechanism.

One company stated that voluntary sharing should not be specified to "financial outperformance" rather than just voluntary sharing mechanisms beyond the standard regulatory framework in general. Another company believed there is scope for the PR24 methodology to go further, potentially extending the cap and collar on ODI outperformance to take into account all sources of out or under-performance of the determination.

Some companies do not believe companies should be rewarded or penalised for the inclusion or not of bespoke voluntary sharing schemes.

11.3 Our final decisions and reasoning

We seek to encourage companies to come forward to commit to give their customers a fair share of outperformance, particularly where, for example, companies outperform areas of the price control package that may not be currently subject to sharing mechanisms (for example, because of outperformance of the cost of debt, high inflation, possible taxation gains or miscalibration of the price determination package).

We recognise there are potential advantages of a mechanism that extends to all sources of out/under performance. However, we consider that such a mechanism may reduce cost/service incentives at the margin. It could also blunten the incentives, and the clear allocation of risk, associated with company financing choices. In addition, a sector wide scheme as suggested may increase the risk to existing schemes and may restrict any proposals that might otherwise be put forward by companies for voluntary sharing. We are open to consider all proposals put forward in business plans that companies can demonstrate represent genuine value for customers.

Finally, we consider there is a distinction between outperformance that is related to operational performance and subject to incentive mechanisms, for example through cost efficiency or delivery against performance commitments, and outperformance that occurs through the examples listed above. We consider it is reasonable therefore to recognise steps companies take to put forward voluntary sharing mechanisms in the ambition assessment of the Quality and Assurance Assessment in company business plans.

Annex A – Historic Performance of costs vs allowances

Totex costs vs allowances

Table A.1: Historic performance of costs vs allowances.

Company	2000-05	2005-10	2010-15	2015-20	Average
Anglian Water	3.5%	1.7%	8.3%	8.6%	5.5%
Dŵr Cymru	2.5%	-4.1%	-10.6%	-8.1%	-5.1%
Northumbrian Water	2.9%	-8.9%	4.4%	5.5%	1.0%
Severn Trent Water	7.6%	-2.5%	-0.2%	-0.2%	1.2%
South West Water	4.6%	-5.6%	0.7%	14.5%	3.6%
Southern Water	1.6%	4.3%	-9.7%	-1.2%	-1.2%
Thames Water	0.0%	-0.1%	-0.8%	-10.0%	-2.7%
United Utilities	5.2%	-0.2%	1.8%	-8.8%	-0.5%
Wessex Water	13.2%	12.5%	15.2%	8.4%	12.3%
Yorkshire Water	11.9%	0.8%	6.4%	-2.6%	4.1%
Affinity	-	-	-5.5%	-2.8%	-4.1%
Bournemouth Water	9.6%	4.3%	-1.0%		4.3%
Bristol Water	3.7%	-0.6%	-5.2%	-2.0%	-1.0%
Cambridge Water	-5.4%	-2.7%	-	-	-4.0%
Dee Valley / Hafren Dyfrdwy	-2.0%	0.5%	0.0%	-6.1%	-1.9%
Mid Kent	3.1%	-	-	-	3.1%
Portsmouth Water	11.8%	-4.8%	-4.0%	-5.4%	-0.6%
SES Water	5.4%	-1.9%	3.8%	-0.3%	1.7%
South East	7.6%	7.0%	-		7.3%
South East (Merged)	-	-	2.3%	3.7%	3.0%
South Staffs Water	6.8%	1.3%	3.1%	-0.7%	2.6%
Veolia Water Central	2.3%	-0.1%	-	-	1.1%
Veolia Water East	-0.5%	-0.9%	-	-	-0.7%
Veolia Water South East	6.8%	-0.4%	-	-	3.2%
Price control period average*	**4.7%**	**0.0%**	**0.5%**	**-0.4%**	**1.2%**
P10	**-0.5%**	**-4.8%**	**-6.8%**	**-8.4%**	
P90	**11.5%**	**4.3%**	**7.0%**	**8.5%**	

*Price control period average calculated based on a simple average.
Negative performance implies a company has overspent and underperformed its' allowance.
Sources: Financial performance and expenditure reports 2004-05 and 2009-10, PR99 final determination operating expenditure, PR04 final determination total operating expenditure, Capital Incentive Scheme (CIS) reconciliation models, 2011 June Return, 2012 Accounting separation submission, 2013-15 Accounting separation tables, PR14 Totex expenditure reconciliation model. PR14 excludes retail.

PR14 retail expenditure vs allowances

Table A.2: PR14 retail expenditure vs allowances

Company	Retail expenditure vs allowance
Anglian Water	10%
Welsh Water	-7%
Northumbrian Water	12%
Severn Trent Water	22%
South West Water	7%
Southern Water	-28%
Thames Water	-2%
United Utilities Water	7%
Wessex Water	14%
Yorkshire Water	5%
Affinity Water	-3%
Bristol Water	17%
Dee Valley / Hadren Dyfrdwy	15%
Portsmouth Water	7%
South East Water	26%
South Staffs Water	14%
SES Water	-15%

Source: Company annual performance reports, 2015-20, Table 2C, allowances taken from PR14 final determinations.

Positive performance relates to underspend (ie outperformance by companies).

Annex B – Depreciation rates derived from average asset lives

In this annex, we set out our estimation of average asset lives and depreciation rates for each of the water companies for each of the wholesale controls derived from annual performance reports for the year ended 31 March 2022.

Table B.1 Average remaining lives and implied deprecation rates for the water resources control derived from annual performance accounts

	Net book value at 31 March 2022 £m	Depreciation charge £m	Average remaining life years	Depreciation rate %
Anglian Water	228.0	8.9	25.6	3.91%
Dŵr Cymru	246.8	14.5	17.1	5.86%
Hafren Dyfrdwy	17.6	0.4	46.7	2.14%
Northumbrian Water	260.4	7.1	36.7	2.73%
Severn Trent Water	397.2	9.2	43.2	2.32%
South West Water	104.3	3.9	26.9	3.72%
Southern Water	179.8	9.0	20.0	4.99%
Thames Water	286.6	7.1	40.3	2.48%
United Utilities	194.7	9.6	20.4	4.91%
Wessex Water	59.6	3.0	19.8	5.06%
Yorkshire Water	378.3	7.6	50.0	2.00%
Affinity Water	134.0	2.7	49.6	2.02%
Bristol Water	42.2	2.1	20.1	4.99%
Portsmouth Water	21.7	0.3	84.0	1.19%
SES Water Water	17.6	0.7	25.5	3.92%
South East Water	134.1	6.2	21.7	4.61%
South Staffs Water	22.6	0.8	29.6	3.38%
Average			33.9	3.54%
Median			26.9	3.72%

Source: Companies annual performance reports for the year ended 31 March 2022.

Table B.2 Average remaining lives and implied deprecation rates for the water network plus control derived from annual performance accounts

	Net book value at 31 March 2022 £m	Depreciation charge £m	Average remaining life years	Depreciation rate %
Anglian Water	4,365.9	117.9	37.0	2.70%
Dŵr Cymru	1,785.8	101.1	17.7	5.66%
Hafren Dyfrdwy	152.0	5.0	30.3	3.30%
Northumbrian Water	2,162.9	65.6	33.0	3.03%
Severn Trent Water	4,163.5	152.8	27.2	3.67%
South West Water	1,443.7	47.3	30.5	3.28%
Southern Water	1,465.6	64.8	22.6	4.42%
Thames Water	7,671.2	323.7	23.7	4.22%
United Utilities	4,362.2	125.3	34.8	2.87%
Wessex Water	1,101.6	36.8	30.0	3.34%
Yorkshire Water	3,487.4	114.4	30.5	3.28%
Affinity Water	1,486.3	61.4	24.2	4.13%
Bristol Water	644.3	22.6	28.5	3.51%
Portsmouth Water	137.9	5.4	25.5	3.92%
SES Water Water	341.2	11.4	30.0	3.33%
South East Water	1,525.0	51.2	29.8	3.36%
South Staffs Water	571.5	23.7	24.1	4.14%
Average			28.2	3.66%
Median			29.8	3.36%

Source: Companies annual performance reports for the year ended 31 March 2022.

Table B.3 Average remaining lives and implied deprecation rates for the wastewater network plus control derived from annual performance accounts

	Net book value at 31 March 2022 £m	Depreciation charge £m	Average remaining life years	Depreciation rate %
Anglian Water	5,043.9	148.2	34.0	2.94%
Dŵr Cymru	3,875.6	159.8	24.3	4.12%
Hafren Dyfrdwy	40.8	1.7	24.5	4.07%
Northumbrian Water	2,167.4	51.5	42.1	2.38%
Severn Trent Water	4,575.2	147.5	31.0	3.22%
South West Water	1,593.9	59.2	26.9	3.71%
Southern Water	4,480.1	196.0	22.9	4.37%
Thames Water	6,153.3	215.8	28.5	3.51%
United Utilities	6,693.0	190.7	35.1	2.85%
Wessex Water	1,992.4	67.0	29.7	3.36%
Yorkshire Water	4,826.0	152.3	31.7	3.16%
Average			30.1	3.43%
Median			29.7	3.36%

Source: Companies annual performance reports for the year ended 31 March 2022.

Table B.4 Average remaining lives and implied deprecation rates for the bioresources control derived from annual performance accounts

	Net book value at 31 March 2022 £m	Depreciation charge £m	Average remaining life years	Depreciation rate %
Anglian Water	306.4	23.1	13.3	7.53%
Dŵr Cymru	209.3	21.9	9.5	10.48%
Hafren Dyfrdwy[1]	-	-	-	-
Northumbrian Water	62.6	8.0	7.9	12.71%
Severn Trent Water	516.2	30.1	17.1	5.83%
South West Water	62.0	4.6	13.5	7.40%
Southern Water	337.9	19.5	17.3	5.77%
Thames Water	927.0	70.2	13.2	7.57%
United Utilities	544.4	40.2	13.5	7.39%

Wessex Water	152..2	10.8	14.1	7.07%
Yorkshire Water	391.2	22.5	17.4	5.74%
Average			13.7	7.75%
Median			13.5	7.40%

1. Hafren Dyfrdwy has no RCV associated with bioresources in PR19 determinations

Source: Companies annual performance reports for the year ended 31 March 2022.

Ofwat (The Water Services Regulation Authority) is a non-ministerial government department. We regulate the water sector in England and Wales.

Ofwat
Centre City Tower
7 Hill Street
Birmingham B5 4UA
Phone: 0121 644 7500

This document is also available from our website at www.ofwat.gov.uk.

Any enquiries regarding this publication should be sent to mailbox@ofwat.gov.uk.

OGL