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PR19 final determinations

Aligning risk and return technical appendix

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PR19 final determinations: Aligning risk and return technical appendix

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Amendment	Date
Figure 3.1, page 21 – amendment to include intended data within figure. Table 6.4, page 96 – amendment to revenue advanced for South Staffs Water to read £1m not £1. Table 9.1, page 116 – amendment to remove footnote references in table header for ‘Policy factors’, ‘Commitments to customers’ and ‘Two Way.’	30 April 2020

1 Summary

Introduction

Our final determinations aim to align the interests of companies and investors to those of customers by setting an appropriate balance of risk and return. Our aim is to incentivise companies to deliver stretching levels of efficiency and levels of service that improve over time.

We allow companies a reasonable return on capital based on a notional capital structure. This is a base return on capital that will vary depending on each companies' performance against its cost allowance and performance commitments in 2020-25. Where a company outperforms our allowed costs or expected service levels it should earn a higher equity return; where a company underperforms our allowed costs or expected service levels it should earn a lower return.

This appendix sets out the issues relevant to the risk and return sections of the PR19 methodology (sections 10 and 11 and appendix 12). We also comment on our assessment of company proposals to meet our expectations to improve trust in the sector which were set out in our 'Putting the sector in balance position statement'.

Taking account of information companies have provided through the process of making our decisions, we update our expectations for companies to improve trust in the sector through their actions in 2020-25. This includes an update to our assessment of the reasonable base dividend for companies in 2020-25, and our expectations regarding the design and application of dividend and performance related pay policies.

Our decisions take into account the representations made on all our draft determinations, responses from companies to our queries and additional information provided following further engagement with companies and other stakeholders as part of the final determination process. In the interest of brevity, where no representations have been made on our draft determination proposals, we do not repeat our reasoning for decisions made. Please see the PR19 draft determinations for further details.

Allowed return on capital and retail margins

Our revenue allowances include a reasonable allowed return on capital. These are determined from market expectations about the cost of finance in the period 2020-25. The allowed return is necessary to provide debt and equity investors with a reasonable return: one that is commensurate with the level of risk that underpins their investment.

We set the allowed return on the basis of a notional capital structure. The capital structure we use is unchanged from that set out in our PR19 methodology which assumed 60% of the RCV is financed by debt and 40% by equity.

The allowed return on capital for the sector in our final determinations is 5.02% in nominal terms at the level of the Appointee. In real terms this is 2.96% on a CPIH basis (1.96% on a RPI basis).[1] It reflects updated market data since our draft determination including lower long-term interest rates, and changes we are making to our assessment in response to representations. Our allowed return on capital is lower than our draft determinations (by 0.23 percentage points). This is the lowest allowed return on capital since privatisation 30 years ago, but it is consistent with market expectations for returns in 2020-25. We retain the retail net margin cap of 1.0% for household and non-contestable business retail services.

We signalled in our draft determinations that the allowed return could reduce for our final determinations taking account of more recent market data. The reduction to the allowed return in our final determination is about half of the potential reduction we signalled could be plausible. It reflects updated market data and changes we are making in response to representations on the allowed return in the draft determinations.

To calculate the allowed return on capital for the wholesale controls, we make an adjustment to the allowed return calculated for the Appointee to take account of the net retail margin. We have updated our approach to calculating this adjustment in our final determinations which has the effect of reducing the adjustment that is made to the Appointee allowed return to calculate the wholesale return. Taking account of this adjustment, the allowed return on capital for wholesale controls is 4.98% in nominal terms. In real terms this is 2.92% on a CPIH basis (1.92% on an RPI basis). Overall this is a reduction of 0.16 percentage points from our draft determination

Our final determinations include company-specific adjustments to the allowed return on capital for Portsmouth Water and South Staffs Water. We do not accept the company-specific adjustments to the allowed return on capital proposed by Bristol Water and SES Water because we are not convinced there are benefits that adequately compensate customers for the increased cost of the uplift. In the case of

[1] This adjustment reflects our long-term assumption for CPIH 2.0%, with a 100 basis point wedge between CPIH and RPI.

SES Water we also do not accept there is compelling evidence of customer support for the proposed uplift.

We summarise our decisions on the allowed return on capital in section 2. The detail that underpins our decision is set out in detail in the separate ‘Allowed return on capital technical appendix’.

Risk analysis

We use incentive mechanisms to align the interests of companies and their investors to those of customers. We aim to ensure that companies will deliver the best outcomes for customers in 2020-25 through the use of incentive mechanisms and the allocation of risk to the party best able to manage it. Outperformance payments are available for companies that outperform the commitments in our determination through outcome delivery incentives, and customers will be protected through revenue adjustments where companies underperform.

We expect efficient companies should be able to earn their allowed return on regulatory equity (4.19% and 3.18% in CPIH and RPI terms)[2], and there is scope for the better performing companies to achieve returns on regulatory equity above the base level where they deliver outperform their performance commitments and cost allowances. Actual returns will vary between companies depending on their performance and in section 3 we assess the risk ranges for companies’ return on regulatory equity, taking account of the incentive mechanisms in our determinations.

Uncertainty mechanisms

Water companies and their investors already benefit from significant risk protection and this is reflected in the allowed return on capital. However, inclusion of uncertainty mechanisms can form part of a balanced package of risk and return. We have added additional uncertainty mechanisms at final determination, which further reduce risk exposure of water companies.

Our determinations include bespoke uncertainty mechanisms for Anglian Water, Affinity Water and Bristol Water. These address uncertain cost items that are specific to each company’s circumstances in our final determinations.

In addition, we are including uncertainty mechanisms for six companies to address the possibility that, in some circumstances, delivery of schemes through the direct procurement for customers process might need to be brought back in-house. This

[2] Base return on regulatory equity can vary between companies because of RCV indexation mix and the variable impact of the retail price control margin.

applies to Anglian Water, Dŵr Cymru, Southern Water, United Utilities, Affinity Water and Bristol Water.

For the final determinations we are also amending the PR24 totex reconciliation mechanisms for all companies, in respect of Environment Agency abstraction licence costs and business rate costs in excess of or lower than the amounts included in companies' totex allowances. We summarise our decisions in section 4.

Cost recovery

Our final determinations set the revenue that companies will recover from customers in 2020-25 separately for each wholesale and retail control. The revenue allowances we set are determined using our assessment of efficient costs, taking account of the appropriate balance of cost recovery from customers in 2020-25 and in the long term. For the wholesale controls, companies recover costs in 2020-25 through 'pay as you go' ('PAYG') or over the long term through the 'run-off' of the RCV.

In our final determinations, we accept the proposals put forward by Severn Trent Water and United Utilities for RCV run-off adjustments that give effect to a full transition to CPIH indexation as supported by their customers. We accept a proposal from Dŵr Cymru for an RCV run-off adjustment related to the funding of its social tariff which is supported by its stakeholders.

Allowed PAYG revenue in our final determinations reflects the increased cost allowances compared with our draft determinations. In addition, taking account of issues raised in representations and from further consultation with companies, we have revised our approach to the allocation of totex to PAYG and RCV. This revised approach better reflects our cost challenge and, overall for the sector, this is beneficial to companies compared with the draft determinations.

In section 5 we set out our policy approach to the assessment of PAYG and RCV run-off in our final determinations and in section 8 we comment on our approach to tax.

Financeability

Companies in the water sector must be able to finance their investment programmes and replace existing debt as it matures. It is important that companies are able to access finance on reasonable terms if they are to meet their obligations and commitments to customers. In recent price review periods, almost all of the new investment in this sector has been funded by debt and retained earnings, however, going forward there may be a requirement for direct equity investment in particular circumstances to ensure companies maintain good credit quality.

Our financeability assessment considers whether the allowed revenues, relative to efficient costs, are sufficient for an efficient company to finance its investment on reasonable terms and to carry out its functions in the long term, so protecting the interests of existing and future customers. In carrying out our financeability assessment, we assume that an efficient company will be able to deliver a level of performance that is consistent with our cost allowances, and that there is no outperformance or underperformance with respect to the levels of service provided to customers.

We carry out our financeability assessment on the basis of the notional capital structure that underpins our allowed return on capital, but companies are entitled to determine the financial structure appropriate for their circumstances, provided they bear the associated risks. For example, if a company's choice of financing structure results in it incurring higher debt costs than reflected in our view of efficient allowed returns, the company will bear this cost. This approach is consistent with meeting all of our regulatory duties and with the approach that we and other regulators have used in previous price reviews.

Several respondents raise concerns about the overall balance of risk and return in our draft determinations and the impact this has on their financeability. Concerns were also raised about our overall approach to financeability and, where companies provided further Board assurance statements in responses to our draft determinations, these were often qualified on the condition that we accept the company's representations in full, including on matters such as cost allowances, performance commitments (and strength of ODI incentives) and the allowed return on capital. We set out our assessment of these issues in the "Overall stretch across costs, outcomes and allowed return on capital appendix".

There are a number of changes in our final determinations that address concerns about the financeability cited in representations include:

- We have increased base and enhancement totex allowances
- We have adjusted PAYG rates and revised our approach to allowed revenues for developer services.
- We have reviewed and reduce stretch on some key performance commitments and reduced asymmetry in outcome delivery incentives
- We place caps and collars on potentially financially significant performance commitments and to mitigate extreme cashflow and bill volatility.

- We have introduced caps and collars to financially material and/or highly uncertain performance commitments. And our final determinations offer companies the option, where outcome delivery incentive adjustments exceed ±1% of notional equity, to ask us to defer the excess to a subsequent year[3].
- We have also amended the calculation of financial ratios in our financial model to reflect our treatment of pension deficit funding.

We use a base dividend yield of 3.00% with real growth of 1.18% as the basis for our financeability assessment of the notional structure. Where RCV growth exceeds 10% in real terms we assume a lower base dividend yield before considering alternative methods to address a financeability constraint. This is consistent with the view set out in our PR19 methodology that equity should have a role to play in financing material RCV growth. Overall, we apply the dividend restriction to eight companies and advance revenue to address a financeability constraint for 12 companies.

All companies targeted a credit rating for their financeability assessment for the notional structure at least two notches above the minimum of the investment grade[4]. We have followed this approach as the basis of our assessment in the final determinations, where appropriate bringing forward revenue from future customers to address a financeability constraint.

We focus on the key financial ratios used by investors and credit rating agencies, focussing primarily on gearing, adjusted interest cover and funds from operations to net debt. The focus of companies varies between adjusted interest cover and funds from operations. Therefore, where we have advanced revenue, we have done so through PAYG or RCV run-off adjustments according to the focus company places on the financial ratios. We assess that for all companies except South East Water[5], the revenue we have advanced is no more than would have been advanced with a full transition to CPIH.

The average for the adjusted interest cover ratio across the industry in 2020-25 ranges from 1.45x to 1.72x. The average for the funds from operations to net debt ratio across the industry in 2020-25 ranges from 8.03% to 13.53%. Consistent with the approach set out in our PR19 methodology, we exercise judgement in our assessment of the financial metrics in the round, taking account of the level of the financial ratios companies proposed in their business plans and reflecting that guidance issued by credit rating agencies does not necessarily imply a minimum

[3] We will consider such a request in light of the company's expected performance and our statutory duties in the round.
[4] In the September 2018 business plans for fast track companies and the April 2019 business plans for slow track and significant scrutiny companies.
[5] A part of the revenue advancement for South East Water recognises that the company's business plan included the lowest RCV run-off in the sector.

requirement for individual financial ratios for a target credit rating. We assess the financial ratios in our final determinations in the round meet the target thresholds consistent with a credit rating two notches above the minimum investment grade, which was the target rating for the notional company proposed by all water companies.

On the basis of Board assurance from companies and our financial analysis, we consider the final determinations for all companies are financeable on the basis of the notional company structure.

Financial resilience

Companies are responsible for their choice of financing and capital structure and should bear the consequences of their choices. We expected companies' business plans to demonstrate that their actual financial structure allows them to maintain financial resilience in 2020-25 and in the long term, taking account of their overall assessment of risks related to their capital structure, as well as any potential cost shocks.

Taking account of our interventions in the draft determinations, and further movements in the market data on the cost of finance since companies provided their business plans, we requested all companies to provide further assurance about their ability to maintain their financial resilience in 2020-25. We expected companies to take account of the reasonably foreseeable range of plausible outcomes of their final determinations.

As explained above, taking account of representations made, we have made some changes in our final determinations to maintain the overall balance of risk and return compared with the draft determinations. The allowed return on capital is lower in the final determinations compared to the draft determinations, but this reflects lower market expectations on the cost of finance in the period 2020-25, and as set out above, we consider our determinations to be financeable for efficient companies on the basis of our notional capital structure.

Reflecting the expectation of a lower allowed return on capital at PR19, we have, for some time[6], signaled a need for highly geared companies to ensure their actual financial structures will remain resilient and, where necessary, to amend their financing structures to ensure long-term resilience.

Some companies with high levels of debt have already taken steps to restructure their debt financing arrangements and/or reduce gearing levels (the ratio of debt to

[6] See for example, Cathryn Ross's speech at Moody's conference in 2017.

equity finance). A number of companies have set out proposals to improve financial resilience in the 2020-25 period by restricting dividends, injecting new equity or through other capital restructuring measures.

However, we remain concerned that some companies are not taking adequate steps to protect and maintain their financial resilience. We set out in section 7 that certain companies may need to accelerate their plans or take additional action to improve financial resilience.

Where companies indicate in their plans that they intend to take steps to reduce gearing or to restructure their financing arrangements, we will monitor the implementation of those proposals. If we do not consider that companies are taking effective steps to improve their financial resilience in a timely way, then we will challenge companies further to demonstrate their levels of financial resilience are sufficient to meet their statutory obligations and customer commitments.

Putting the sector in balance

The public service nature of the water sector means that companies should be transparent about performance-related executive pay, dividends and financing arrangements, and show how these take account of delivery of services to customers.

In July 2018, we published 'Putting the sector in balance', a position statement that made targeted amendments to the PR19 methodology that aim to align companies to take customers' interests more fully into account.

All companies have taken steps through the PR19 process with the aim of meeting our expectations. Our challenge to the companies has evolved to take account of good and best practice among the companies we regulate. Companies need to implement their commitments and continue to develop best practice in their application of dividend and performance-related executive pay policies, to ensure they take account of customers' interests in 2020-25. This includes ensuring that these policies include performance targets that are set by reference to the final determinations. In section 9 of this document we set out our expectations for companies regarding their dividend and performance related pay policies for 2020-25.

We do not regulate the level of dividends that companies pay or specify the terms of dividend policies. But we do expect all companies to take decisions on dividends having regard to all relevant factors, particularly their wider obligations and responsibilities, and to be transparent about both their dividend policies and how such judgements are made.

Our final determinations propose a base dividend yield of up to 4% as a reasonable level for companies that have little real RCV growth and that perform in line with our determination in 2020-25. Where a company must finance material growth of the asset base or where long term financial resilience is at risk, it may need to reduce this base dividend or its investors may need to invest more equity. In the application of their dividend policies we expect companies to be clear about how dividends declared or paid take account of all relevant factors and the delivery of companies' obligations and commitments to customers and other stakeholders.

For performance-related executive pay, we look to companies and their remuneration committees to ensure performance targets are substantially linked to stretching delivery for customers, and that these targets are rigorously applied.

Our final determination includes a mechanism for companies to share the benefits of high levels of gearing with customers. We have amended the default mechanism set out in our draft determinations to include a glide path to the trigger level for the mechanism in 2020-25. This amendment sharpens the marginal incentives for highly geared companies to reduce gearing and recognises our mechanism is new for PR19 and companies' debt arrangements may take time to unwind.

Some companies propose amendments to our default mechanism in their representations. We do not accept the proposals put forward by these companies as we do not consider the amendments proposed by these companies provide benefits that are equivalent, in the round, to our sharing mechanism.

1.1 Document structure

The remainder of this appendix sets out our approach to risk and return in our final determinations and is structured as follows:

- In section 2 we set out our decision on the cost of capital and retail margins which underpins our final determinations.
- In section 3 we set out our assessment of risk analysis.
- In section 4 we set out our decisions on uncertainty mechanisms.
- In section 5 we set out our position on our overall approach to cost recovery now and in the long term.
- In section 6 we set out our approach to the overall assessment of financeability of our final determinations.

- In section 7 we comment on financial resilience.
- In section 8 we set out our approach to tax.
- In section 9 we comment on the approach companies have taken to meet our expectations as set out in our 'Putting the sector in balance' position statement.

We provide further detail on our assessment of the cost of capital in the 'Cost of capital technical appendix'. Our assessment of the cost of capital is supported by reports from Europe Economics[7] and PwC[8].

[7] Europe Economics 2019 'The allowed return on capital for the water sector at PR19'
[8] PwC 2019 'Updated DDM analysis for PR19'

2 Allowed return on capital and retail margins

The allowed return on capital is an important component of overall allowed revenue and customer bills. It is necessary to provide debt and equity investors with a return that is commensurate with the risk of their investment. This base return on capital that will vary depending on each companies' performance against its cost allowance and performance commitments in 2020-25.

If the allowed return is set too high, bills may be higher than customers may reasonably expect, company profits may be seen as excessive and the legitimacy of the regulatory regime may be called into question. If the cost of capital is set too low, companies' ability to raise the finance necessary to deliver services that customers expect might be put at risk.

Our PR19 methodology set out our 'early view' of the cost of capital in 2020-25 to facilitate development of company business plans. The methodology confirmed that we would update our assessment of the cost of capital for our draft and final determinations[9].

Our final determination updates evidence on the allowed return on capital in the period 2020-25, based on market data available up to the end of September 2019[10]. The components of the allowed return for our final determinations are listed in Table 2.1, alongside the allowed return for the draft determinations.

[9] We applied the 'early view' cost of capital in our draft determinations for the fast track companies (Severn Trent Water, South West Water and United Utilities Water) that we published in April. We revised the cost of capital to take account of more recent data in the draft determinations of the slow track and significant scrutiny companies. The cost of capital we have determined in our final determinations applies to all fast track, slow track and significant scrutiny companies.
[10] We have considered market data since this cut off point, including very recent data at the time of publication of the final determinations in response to recent events. Our view remains that the allowed return is consistent with a reasonable allowed return on capital that, in the round, is consistent with market expectations for the period 2020-25.

Table 2.1: The allowed return on capital in our final determinations

Component	Component of the allowed return on capital			Draft determination[1] (CPIH 2%)
	Nominal	Real (RPI 3%)	Real (CPIH 2%)	
Allowed return on equity	6.27%	3.18%	4.19%	4.47%
Allowed return on debt	4.18%	1.15%	2.14%	2.33%
Notional gearing	60%			60%
Ratio of embedded to new debt	80:20			80:20
Allowed return on capital - Appointee	5.02%	1.96%	2.96%	3.19%
Retail Margin deduction	0.04%			0.11%
Allowed return on capital – Wholesale	4.98%	1.92%	2.92%	3.08%

[1] Draft determinations for slow track and significant scrutiny companies; the draft determinations for fast track companies used the 'early view' allowed return on capital stated in the PR19 methodology.

Our detailed assessment of the allowed return on capital is set out in our 'Allowed return on capital technical appendix' where we also set out how we have taken account of representations from companies and other stakeholders. Our assessment is informed by analysis we have carried out, and analysis carried out for us by Europe Economics[11] and PwC[12]. In summary:

- We determine the allowed return by reference to a notional capital structure, and retain our notional company gearing assumption of 60% as outlined in our PR19 methodology.

- Market evidence to the end of September 2019 points to a lower risk-free rate13 in 2020-25 than we included in our draft determinations. This lowers the allowed return on equity in the final determination. We have revised our approach to the calculation of the risk-free rate, which is now based on a one month trailing average of market data. Based on our interpretation of updated market evidence we retain the same point estimates for unlevered beta,[14] debt beta and Total Market Return as at our draft determinations.

- Our assessment of the allowed return on debt reflects updated evidence on yields in our benchmark index (the iBoxx A/BBB 10yrs+ non-financials index), which have fallen since our draft determinations. This has resulted in a

[11] Europe Economics, 'The Cost of Capital for the Water Sector at PR19', December 2019
[12] PwC, 'Updated DDM analysis for PR19', October 2019
[13] As proxied for by yields on UK RPI-linked gilts
[14] A measure of risk faced by investors in UK water, compared to a broad index of UK equities.

substantial drop in our cost of new debt estimate and a minor drop in our allowed cost of embedded debt. We retain our draft determination approach of calculating allowances based on our benchmark index, after making a downwards adjustment to reflect our observation that companies in the water sector have, tended to outperform the benchmark index over 2000-2018. We retain our downward adjustment of 25 basis points for embedded debt, but have reduced it to 15 basis points for new debt, reflecting uncertainty over the persistence of this historical level of outperformance in the period 2020-25. We have retained our share of new debt point estimate from draft determinations of 20%. The cost of new debt is subject to a reconciliation at PR24. This substantially limits the risk of customers incurring the cost of a forecast premium in the allowed return, and means companies are protected in the event of increases in the market cost of debt.

- We have revised our assessment of the required retail margin deduction[15] down from 0.11% to 0.04%, reflecting our view that the double-counted component of return in the household retail margin has reduced since PR14.

Four companies: Bristol Water, Portsmouth Water, SES Water and South Staffs Water have applied for a Company-Specific Adjustment (CSA) to the allowed return on capital. We have assessed these applications using our three-stage approach as set out in our PR19 final methodology. Taking account of updated information in the final determination and in representations, we consider that Portsmouth Water and South Staffs Water have passed all three stages. These companies both earn an uplift of 0.33% to their allowed cost of debt – reflecting our updated view of the appropriate small company cost of debt premium. Bristol Water and SES Water do not pass all three stages, and so do not qualify for this uplift. We provide further detail on these issues in our ‘Allowed return on capital technical appendix’.

Our determination for the Havant Thicket Winter Storage Reservoir price control within Portsmouth Water’s determination includes an allowed return of 2.92%, which is based on the CPIH-deflated wholesale allowed return for all companies, but without an uplift for Portsmouth Water’s Company-Specific Adjustment. Further detail on our overall framework for regulating Havant Thicket is set out in the ‘Havant Thicket appendix’.

[15] The deduction when moving from an appointee to a wholesale cost of capital, to avoid double-counting investor returns attributable to the retail control.

3 Risk analysis

Key messages for our final determinations:

- The final determination risk ranges reflect our assessment of risk ranges for outcome delivery incentives and a common approach to the presentation of risk ranges on a notional basis for totex, financing costs, C-MeX, and D-MeX.
- We add an embedded debt risk component to our common approach for assessing financing cost risk.
- Overall, in contrast to the views expressed by companies in their representations, we consider there to be significant scope for companies to earn higher returns from outperformance as well as the risk of lower returns from underperformance.

Our aim is for our determinations to be stretching, to encourage companies to improve efficiency, and we expect to see levels of service improve over time. Nonetheless, we expect that an efficient company, with a notional capital structure, should be able to achieve a return on equity that is equivalent to the allowed return on equity over the period of the price control.

Where a company outperforms our allowed costs or expected service levels it should earn a higher equity return; where a company underperforms our allowed costs or expected service levels it should earn a lower return. By providing an appropriate calibration of regulatory incentive mechanisms to underpin performance payments and penalties, we aim to ensure the interests of companies and their investors align with those of customers and the protection of the environment.

The PR19 methodology increases the proportion of revenue at risk from service performance through outcome delivery incentives (ODIs) and increases the cost sharing incentives to reward the most efficient companies, with inefficient companies bearing a greater share of underperformance. These components of the methodology, which include greater use of in-period reconciliation adjustments, encourage companies to focus on delivery for customers and the environment.

Our PR19 methodology set out that each company is expected to demonstrate a clear understanding of risk to the delivery of its business plan and to provide clear evidence of the risk management measures it has in place. The PR19 methodology required companies to analyse the impact of upside and downside risk under the notional capital structure by reference to the return on regulatory equity (RoRE). That included risk ranges for totex, retail costs, financing costs, revenue, customer / developer measures of experience (C-MeX and D-MeX) and water trading incentives. This information enables us to compare company plans so as to consider whether companies have appropriately stretching plans and are properly accounting for risks.

Companies and their investors in this sector already have significant protection from risks compared to companies operating in a wholly competitive environment. Our PR19 methodology set out the range of protections already in place, which includes price limit reopeners; inflation indexation; totex cost sharing; allowances for special cost factor claims; outcome delivery incentives; and reconciliation mechanisms for wholesale revenue, the cost of new debt and tax. Companies' licences also allow price limits to be reopened in certain limited circumstances where a materiality threshold has been exceeded.[16]

In this section we set out company representations on the risk ranges in our draft determinations and our assessment of the risk ranges for individual companies for the final determinations. In our final determinations we have amended the risk ranges proposed by companies to reflect our assessment of likely risk ranges taking account of evidence of past performance and expected performance for an efficient company with a notional capital structure in 2020-25.

3.1 What we said in our draft determinations

The risk ranges presented in our draft determinations were based on the information companies provided in business plans together with our interventions. We made some interventions in the risk ranges proposed by some companies and asked all companies to update their risk analysis in response to our draft determinations for the slow track and significant scrutiny companies.

[16] There are two types of interim determination: (i) where there are circumstances having a substantial effect on the appointed business (a substantial effect interim determination); and (ii) in relation to relevant changes of circumstance and any 'notified items' (a standard interim determination).

3.2 Stakeholders' representations

Companies raise a number of concerns with the overall balance of risk and return in our draft determinations and associated risk ranges. Most comments relate to an overall downward skew for risk ranges that we presented in the draft determinations.

Several companies set out that our approach to determining risk ranges in the draft determinations is not sufficiently robust or sufficiently transparent and three companies, Thames Water, Wessex Water and Northumbrian Water, note an increased downside risk for equity investors.

A report by Economic Insight, submitted by Anglian Water, Northumbrian Water, Dŵr Cymru and Yorkshire Water challenges the position we set out in our draft determination[17] that cost performance has been positively skewed at a sector level in previous price review periods. It suggests that, whilst some companies do slightly outperform, a similar number underperform which is what one would expect to observe if incentive regulation is working effectively.

Four companies: Anglian Water; South East Water; SES Water and Yorkshire Water do not agree with our position that PR19 totex allowances are set at P50 levels for efficient companies, stating that there is in fact a downside skew to cost risk. Two companies, Thames Water and South East Water, express a view that some totex risks, such as severe weather events, do not have corresponding upside opportunities.

A majority of companies: Anglian Water; South East Water; South Staffs Water; Yorkshire Water; Bristol Water; Hafren Dyfrdwy; Wessex Water; SES Water; and Portsmouth Water, represent that they face a significant downside skew to risks in relation to ODIs. Two companies: Bristol Water and Thames Water say their customers express support for more balanced ODI packages and one, Hafren Dyfrdwy, considers there should be an aggregate cap and collar for ODI rewards/penalties.

South East Water considers that there are financial implications associated with different costs of embedded debt that should be taken into account in our risk ranges.

Six companies accept specific interventions we made to risk ranges in our draft determinations: Affinity Water on water trading; Anglian Water on C-MeX; Hafren

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Dyfrdwy on totex; and Anglian Water, SES Water and South Staffs Water on financing risk.

No representations are made on our interventions to the risk ranges for Southern Water and Yorkshire Water on C-MeX, or Yorkshire Water and United Utilities on revenue risk.

3.3 Our assessment and reasons

We carefully consider the issues raised in these representations regarding the overall balance of risk and return. We make a number of changes in our final determinations that materially address concerns raised by companies on the overall level of stretch in our draft determinations. These revisions include higher cost allowances, revisions to outcome delivery incentives and bespoke cost sharing rates. While the allowed return on capital has reduced compared with the draft determinations, this reflects lower expected market returns and so we do not consider this alters the overall level of stretch.

The risk ranges presented in our draft determinations relied predominately on the ranges proposed by companies in their plans and were largely unchanged. Some respondents suggest that our apparent acceptance of the profile of risk indicated by the ranges, including the downside skew on expected returns, suggests our agreement.

It is not our view that the risk ranges provided by companies in light of our draft determination positions accurately reflect the risks companies will face over the control period. In some cases companies have a different view of costs and / or outcomes performance to that we set out. However, companies have an incentive to argue there is greater risk and a downward skew to reduce the stretch in our cost assessment or performance commitments, to increase scope for outperformance payments or limit underperformance payments. Company views may also reflect company-specific factors or inefficiency and historical issues on performance. This may be because companies are likely to focus on downside risk in their assessment, reaching views on risk before they have had the opportunity to further challenge themselves on the level of stretch in the context of the final determinations.

The decisions in our final determinations aim to set cost allowances and performance commitments that are stretching, but achievable for an efficient company. We do not consider that our interventions should, of themselves, induce negative risk skew in an efficiently run company. Our aim is to set challenging benchmarks on the basis of the information we have about what we expect efficient companies should be capable of achieving based on past and expected future performance. This is within the context of asymmetry of information between companies and the regulator and the focus companies may place on downside risk rather than scope for outperformance.

To reflect these issues better in our final determinations, we have revised our approach to take account of the evidence on past performance that we have observed in the sector. In doing so, we note that in the process of carrying out all previous price determinations, representations have been made at the equivalent point in the process regarding the challenge associated with achieving the level of stretch in our determinations.

We acknowledge that the PR19 methodology set out an expectation for our determinations to be stretching. We expect efficient companies to seek new and better ways of delivering services that allow them to step up to our stretching benchmarks, and in doing so we expect efficient companies to earn the allowed return on capital.

In the following sections, we set out our approach to determining the risk range for each company in our determinations. We have set out our assessment of the evidence provided in the Economic Insight report separately in 'Annex 3: Frontier shift and real price effects' of the 'Securing cost efficiency technical appendix'.

Cost risk ranges

In this section we set out our approach to the assessment of totex and retail cost risk ranges for the final determinations.

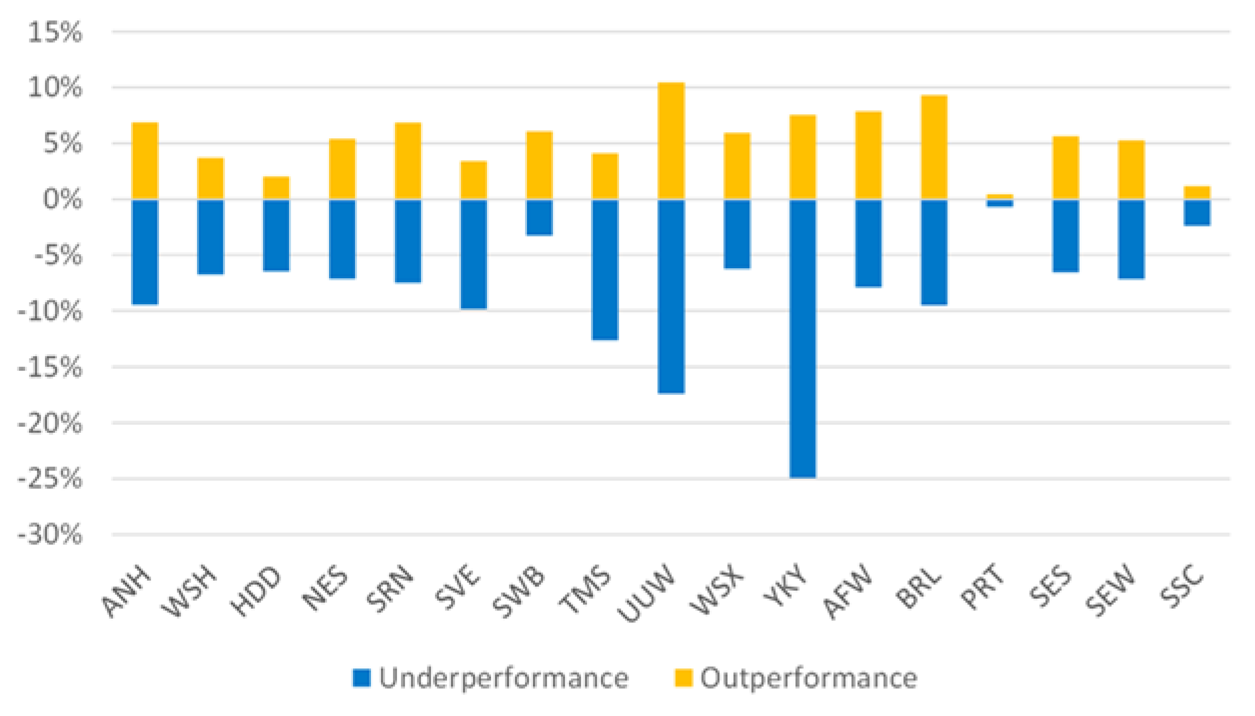
Our assessment of each company's totex risk range starts with an expectation that an efficient company with a notional capital structure should be able to deliver its obligations and commitments within our cost allowances. We expect an efficient company should have:

- a broadly equal likelihood of over or under expenditure against its allowance (i.e. the allowance is set at a P50 level); and
- broadly similar risk profiles to other water companies.

Totex risk ranges

The totex risk ranges set out in companies' representations are shown in Figure 3.1 as a percentage of our final determination totex allowances. Except for Portsmouth Water, South West Water and Anglian Water these risk ranges reflect the view of all companies that there is an expected skew towards underperformance. In submissions to us, Portsmouth Water references its leading efficiency position as an opportunity for outperformance and South West Water references forecast sector leading totex efficiency delivery.

Figure 3.1: Totex risk ranges in company representations as a percentage of our final determination allowed totex [18]

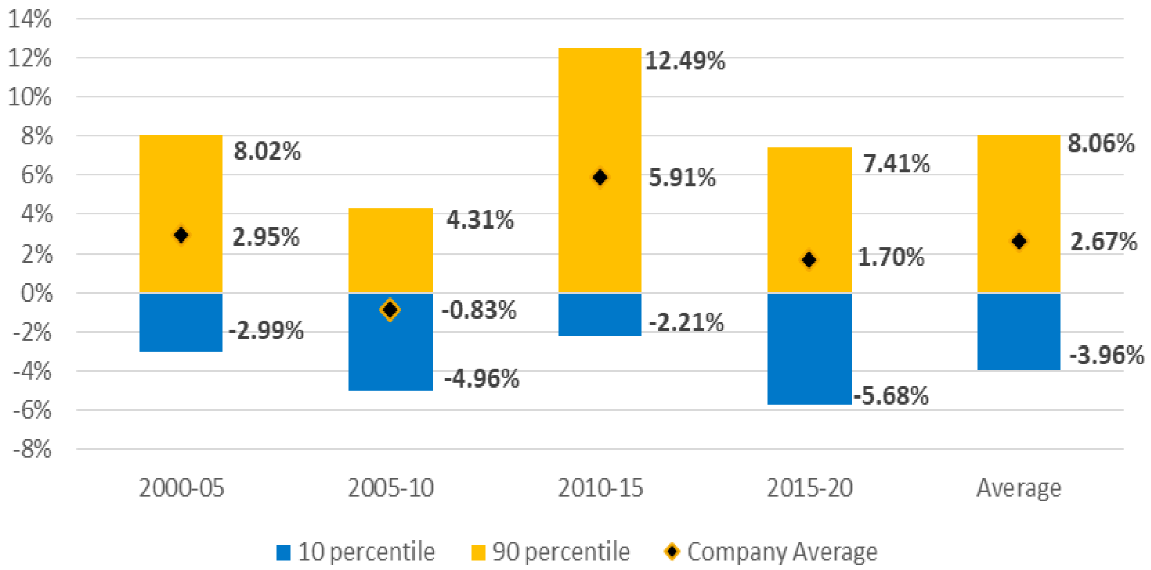


Note: risk ranges are presented on final determination allowed totex that excludes third party costs, pension deficit repair costs, other cash items and non section 185 diversion costs
Source: companies representations: App 26.

We expect that company views of totex risk ranges may change as a result of our decisions on cost allowances in the final determinations. However, to test company views that risks are negatively skewed to underperformance, we consider the historical performance data for the sector. Figure 3.2 shows companies have tended to outperform the determination on average in price control periods from 2000 to 2019. The information presented in Figure 3.2 also casts doubt on the accuracy of the estimated risk ranges proposed by some companies in the period 2020-25. Figure 3.3 compares totex performance in 2015-19 against the totex risk range presented in the PR14 final determinations.

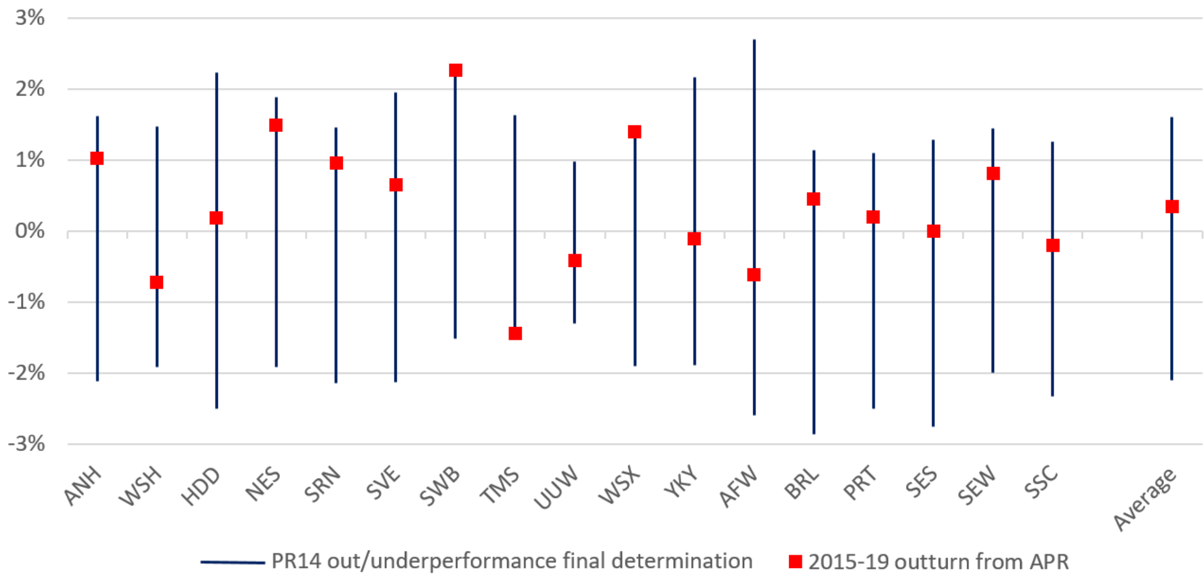
[18] Amendment to include intended data within figure

Figure 3.2: Historical totex out / under performance as a percentage of totex allowances (2000 to 2019)



Notes: 10th and 90th percentiles calculated for each control period by comparing outturn costs (for water and wastewater) against allowed costs assuming each company is a single data point for the five year period of each control. For control periods covering 2000-2015 we aggregate opex and capex. For 2015-2019 the assessment is on a totex basis excluding retail costs as from 2015 this is now a separate price control. Company average is the simple average of company performance for each price control. Source: previous price determinations, June returns and company annual performance reports.

Figure 3.3: Reported outturn totex measured as return on regulatory equity compared to the totex risk ranges in the PR14 final determination



Source: PR14 final determination and company annual performance reports

Figures 3.2 and 3.3 show a tendency towards outperformance since 2000, with companies, on average, outperforming cost allowances in each period except for 2005-10. Figure 3.3 shows that in the current period, despite an expectation of underperformance implied by the risk ranges in the PR14 final determination, companies on average are outperforming. This is consistent with a view that asymmetry of information between the regulator and the company means that the determination might be favourable to the company. It also reflects that companies are incentivised to outperform the regulatory cost allowances to generate higher returns for investors. It may also reflect the existence of X-inefficiency in a stable long-term monopoly sector, where an insufficient incentive to control costs means that there is some degree of slack available which companies can exploit when they face a cost challenge from the price review. It challenges the view expressed in representations by some companies that totex risks are skewed to the downside, with an implied expectation of underperformance. We set out further detail in the ‘Overall stretch across costs, outcomes and allowed return on capital appendix’.

Some companies advance an argument that expected total returns could be negatively skewed because for some individual risks there is no equivalent upside, for example: weather related incidents, asset health related incidents, compliance failures or incidents such as the risks arising from cryptosporidium. We are not convinced that such an argument is consistent either with theory or historical evidence. Indeed variances in weather can lead both to benign or difficult conditions for the sector.

On a theoretical basis combining a variety of risks, whether skewed or distributed in some other form, within a portfolio will tend to produce a portfolio with a distribution of returns which tends towards a normal distribution[19]. Since water companies face a broad portfolio of risks across the many and varied projects they manage, we would expect the risk profile for their returns to be broadly normally distributed with equal up- and down-sides, taking account of the incentives companies have to be efficient.

When reviewing past performance we do not observe any clear evidence of returns are skewed to underperformance at a sector level. We note that extreme weather events (e.g. the 'Beast from the East' of 2018)[20] have occurred in the periods assessed in this dataset as well as other non-standard events such as a cryptosporidium incident in 2017[21]. We consider that companies must be held accountable for their actions in respect of matters over which they have significant management control. This includes matters such as asset health and compliance failures which we consider to be company-specific issues which may not be relevant for a notionally structured, efficient company. We note also that the dataset considered in Figure 3.3 encompasses other events in the assessment period that may be considered to have material impacts on the companies. This includes events such as the foot and mouth outbreak in 2001, periods of dry weather leading to hosepipe bans and the credit crunch. These incidents can have a negative impact on costs, but evidence taking account of overall performance suggests this is not material in the context of achieved returns.

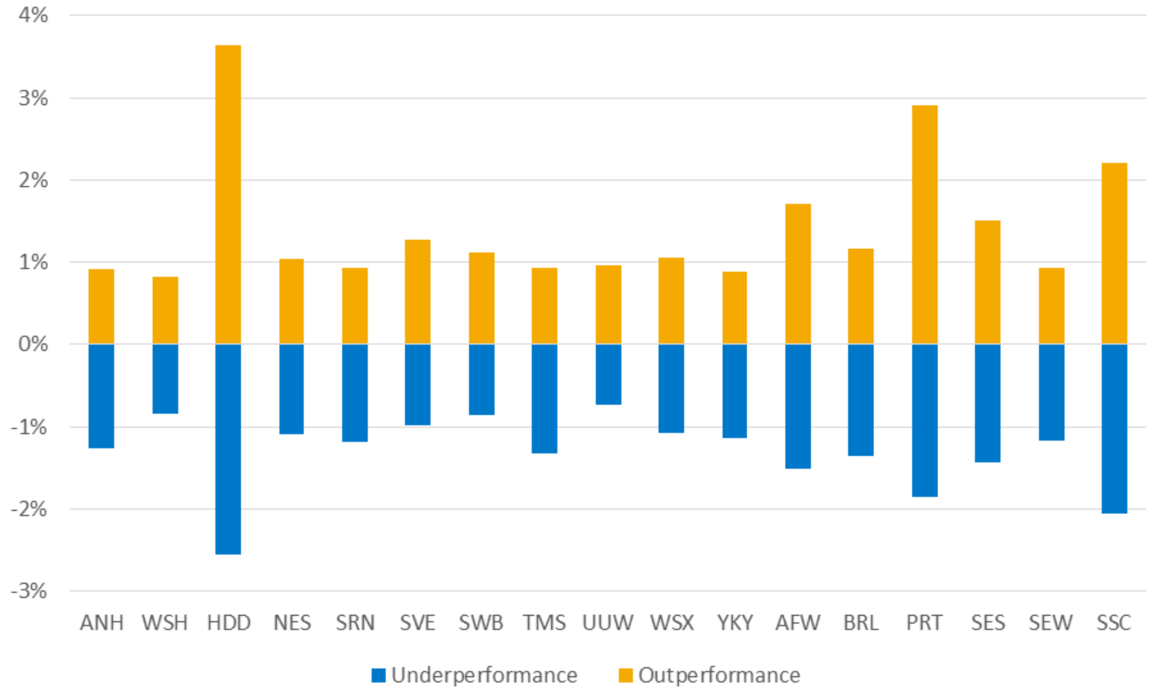
We have considered the information presented in Figure 3.3 for the purpose of our totex risk ranges for all companies. As the period 2015-19 is the only period that has been set on a totex basis, we have used this range for the purposes of our totex risk range, suggesting a range of 5.7% for underperformance and 7.4% for outperformance against our assessment of efficient allowed totex. While we acknowledge the 2015-19 data excludes the final year of the current control period, it appears comparable to performance of companies in prior periods and so is broadly representative of the range of possible performance for companies in 2020-25.

Figure 3.4 presents the resulting risk ranges in our final determinations, calculated as a return on regulatory equity. We use the totex incentive sharing rates calculated in our final determination for the water resources, water network plus and wastewater network plus controls; the contribution to the risk range from the

[19] This outcome used in portfolio theory is calculated from the statistical property of the Central Limit Theorem
[20] We investigated this in our report 'Out in the cold: Water companies' response to the 'Beast from the East''
[21] United Utilities.

bioresources controls are calculated on the basis that these controls are not subject to cost sharing.

Figure 3.4: PR19 final determination totex risk ranges calculated as a percentage of regulatory equity



Source: Ofwat

The risk ranges are wider for some companies, notably Hafren Dyfrdwy and South Staffs Water, as a consequence of a relatively high level of totex as a proportion of their regulatory equity balances in 2020-25. This small regulatory equity balance means that any totex under or over spend has a larger impact on the return on regulatory equity. For Hafren Dyfrdwy this is related in part to its low starting RCV following its border variation. The ranges for Portsmouth Water and South Staffs Water are influenced by the significant investment these companies will make in 2020-25.

Retail cost risk ranges

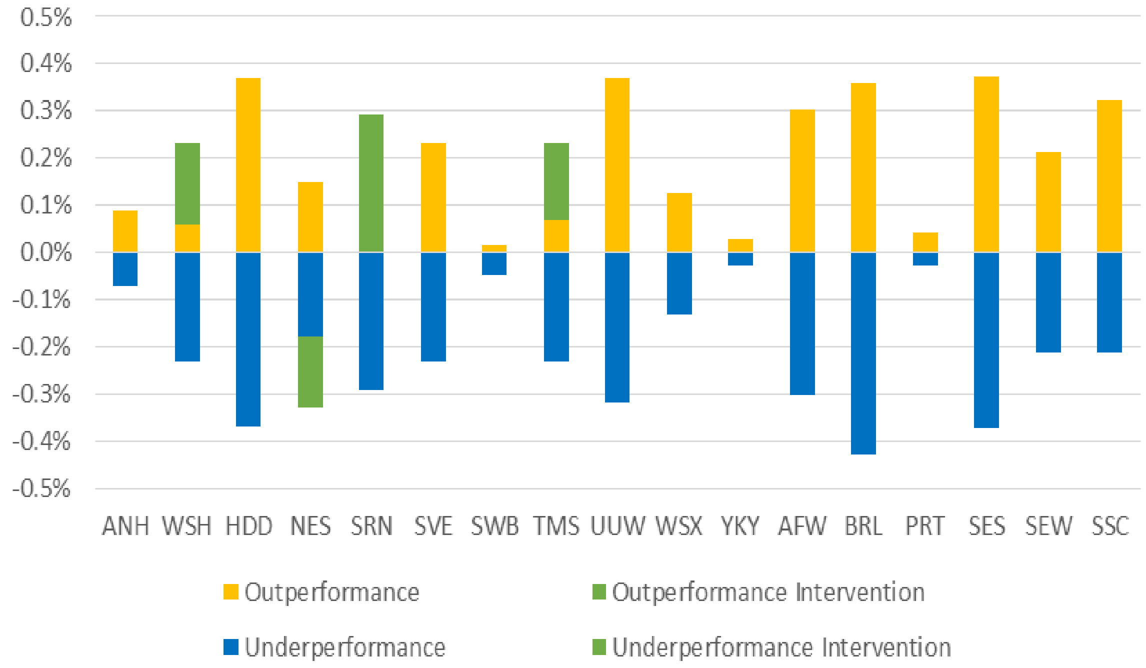
We assess that the risk ranges for all companies fall within the out / underperformance percentage ranges we have considered for totex when applied to retail cost allowances. Variation in risk ranges between companies reflects different assumptions companies have made about the range of their expected out / underperformance against our cost allowances, including managing issues such as bad debt.

In their representations, four companies exhibit a material downside skew in their proposed retail cost risk ranges and so we have sought to understand the reasons set out. Our assessment and revisions to the risk ranges of these companies are set out below:

- We understand Southern Water's downward skew links to its forecast reducing bad debt provision in 2020-25. We note that Southern Water is efficient in our assessment of retail costs and we consider there is scope for outperformance against our cost benchmark and so we have revised the upside risk range to be symmetrical with the downside risk range.
- We understand Dŵr Cymru's expected downside skew for retail costs relates to a reducing bad debt provision in 2020-25 and the risk that customer contact savings might not be achieved. However, we consider there remains scope for Welsh Water to outperform its retail cost allowances and so we have revised the upside risk range to be symmetrical with the downside risk range.
- We note that Thames Water has increased its bad debt provision in its forecast costs in 2020-25, but this is alongside an expectation of falling bills in 2020-25. We are not convinced that Thames Water's risks should be so skewed to the downside therefore, for Thames Water's final determination we have revised the upside risk range to be symmetrical with its downside.
- Northumbrian Water had a symmetrical range in its April business plan submission, but in its draft determination representations submitted an asymmetrical downside risk range. However, the company has not provided any substantive evidence to support its change in view and downside skew; therefore, for Northumbrian Water's final determination we have revised the downside risk range to be symmetrical with the upside risk range.

Figure 3.5 shows company views of their retail cost risk ranges calculated as a percentage of the final determination allowed retail costs, showing the effect of our adjustments to the company views.

Figure 3.5: Retail cost risk ranges calculated as a percentage of regulatory equity



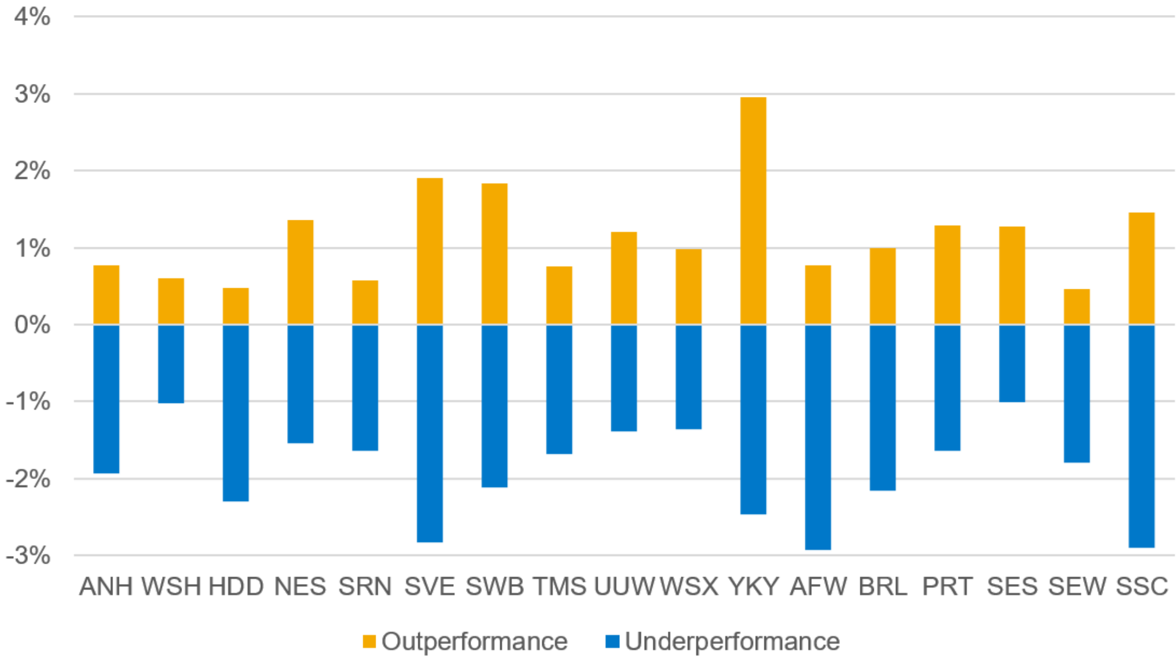
Source: Companies representations App26 data and Ofwat assessment

Outcome delivery incentive risk ranges

Our PR19 methodology proposes that companies could consider an expected ODI risk range for out / underperformance of +/-1% to 3% of base equity return when proposing performance commitment levels, with outperformance payments available where companies deliver beyond stretching service levels. Our approach aims to align incentives on companies with the interests of customers and wider stakeholders.

In figure 3.6 we present the risk ranges for outcome delivery incentives that have been determined under our Outcomes Framework including the interventions applied under that assessment. We use caps and collars on individual performance commitments to limit overall risk exposure. We explain our approach to setting the risk ranges further in the 'Delivering outcomes for customer's policy appendix'.

Figure 3.6: PR19 ODI risk ranges calculated as a percentage of regulatory equity



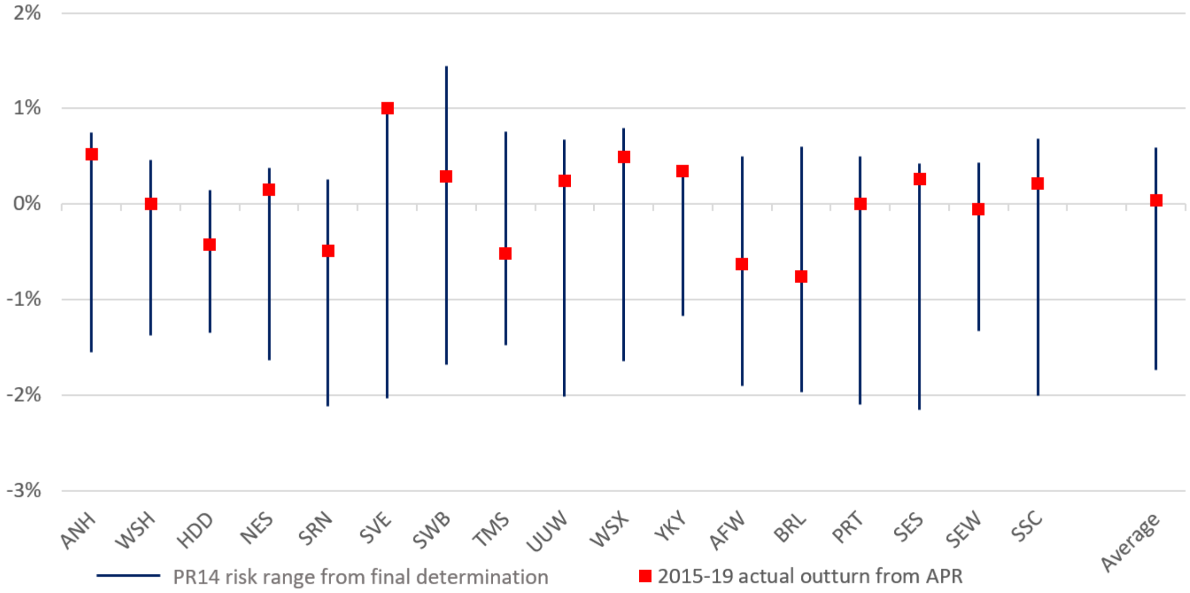
Source: Ofwat

A reported downside skew in risk ranges presented in our final determination does not mean that we expect companies to underperform on average – either individually or at the sector level. The asymmetry of information between companies and regulators means that companies are likely to focus predominantly on downside risks. Potential X inefficiency in the sector may also provide scope for monopoly companies to improve performance in response to the challenge from a price review[22].

This is evidenced from the ODI risk ranges in the PR14 final determination, associated with performance commitments which were considered to be stretching, and, as shown in Figure 3.7, were presented with a negative skew. Following PR14, companies have responded to the ODI incentive challenges in 2015-19, with average performance for the sector equivalent to a 0.0% impact on base regulatory equity. We consider companies will be incentivised to respond to the stretch we have included in our PR19 final determinations, meaning that we do not expect there to be a negative impact on realised returns for efficient companies on average, but we acknowledge some companies may underperform.

[22] Further details in the 'Overall stretch across costs, outcomes and allowed return on capital appendix'

Figure 3.7: Reported performance of each company against the ODI risk ranges from the PR14 final determination



Source: PR14 final determination and company annual performance reports

Financing cost risk ranges

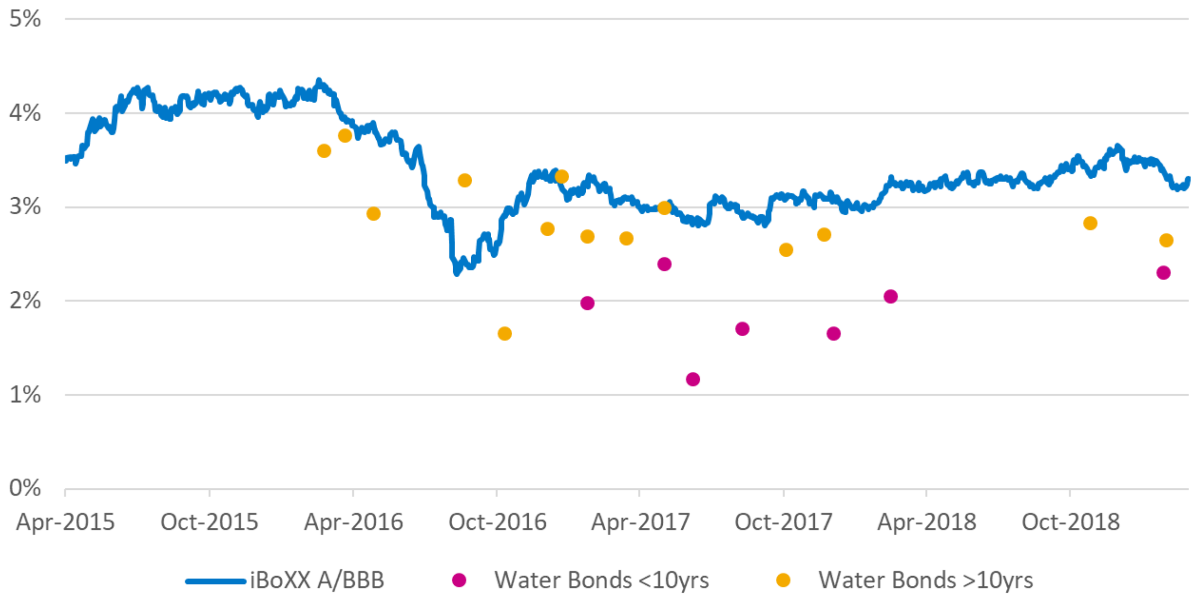
Consistent with the approach set out in the PR19 methodology, our draft determinations considered financing cost risks associated with new debt costs. Our approach assumed an efficient company with a notional capital structure should be able to achieve the cost of embedded debt that is consistent with the allowed return on embedded debt included in our determination. However, we also set out that we would consider revising our approach to the presentation of the risk ranges for the cost of debt to include the impact of embedded debt in the final determinations. This is partly because several companies have in the past significantly outperformed the allowed return on embedded debt, but also because the actual reported out- and under-performance in company Annual Performance Reports includes the effect of a company's performance against the overall allowed returns that include the allowed return on embedded debt.

In their business plans, companies adopted a range of approaches to the assessment of financing cost risk ranges. We considered these in our initial assessment of business plans and in our draft determinations, and intervened in the draft determinations of some companies. For the final determinations we adopt a consistent approach to the presentation of the financing cost risk ranges for all companies. Our approach considers the risk ranges for the new and embedded debt separately.

In our draft determination we set out a view that the risk range for the cost of new debt was from 25 bps on the downside to 100bps on the upside. We estimated this from the bonds issued in the water sector since 2014 compared with the benchmark index used to assess the cost of embedded and new debt in our draft determinations (Figure 3.8). Using an embedded debt:new debt ratio of 80:20, we calculated corresponding financing cost risk ranges of -0.08% to 0.31% (measured against regulatory equity) which we applied to the draft determinations of Wessex Water, South Staffs Water, South East Water and Anglian Water. For SES Water we amended the range to 50bps on the downside and to 75bps on the upside, to take account of the risk associated with our rejection of its request for a 25 bps company-specific adjustment to the cost of debt. This gave a financing cost risk range of -0.16% to 0.24% (measured against regulatory equity) for SES Water.

We retain the risk ranges stated above for new debt in our final determinations. We calculate the risk range based on our draft determination risk range from 25 bps on the downside and 100 bps on the upside for all companies except SES Water and Bristol Water as we have not accepted their proposed company-specific adjustments to the cost of debt. In our final determination, for SES Water and Bristol Water, we adjust the downside and upside by -25 bps, consistent with our view on the premium faced by a notionally structured small company on the cost of new debt that is set out in the 'Allowed return on capital: technical appendix'. For these two companies our calculation is based on a range of 50 bps downside and 75 bps upside. However, as set out in the 'Allowed return on capital technical appendix' the weighted average cost of debt for Bristol Water is comparable with the sector mean.

Figure 3.8: Ofwat benchmark index and water bond yield-at-issuance 2015-19 (%)

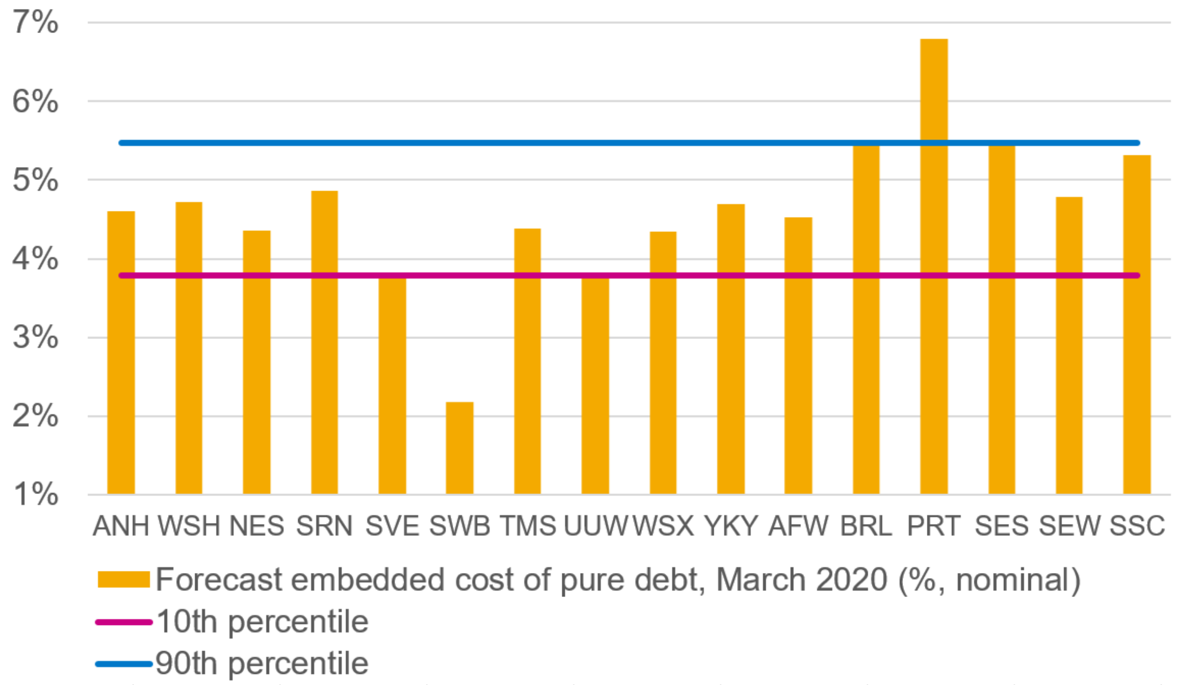


Source: Ofwat analysis of Refinitiv and IHS Markit data

Companies face a risk[23] that the costs associated with their embedded debt (i.e. debt taken out before 1 April 2020 that remains in place in the period 2020-25) will be higher or lower than the allowed return on embedded debt included in our final determinations. We consider that, over time, an efficient company with a notional structure would achieve the debt costs we allow, but in any single price control period there may be out / under performance due to variability in timing and structure of debt issuance, tenor and inflation rates.

To estimate a risk range for embedded debt costs for a notionally structured company we calculate the 10th and 90th percentiles of companies' pure debt cost at 31 March 2020 as set out in Figure 3.9[24].

Figure 3.9: Companies' embedded debt cost at 31 March 2020 showing 10th and 90th percentile values



Source: Ofwat analysis

We then express the differences between the 10th percentile, and the 90th percentile, and our final determination allowed percentage cost of embedded debt as P10 (downside) and P90 (upside) values respectively. This gives an embedded debt

[23] Companies will have a largely known level of future performance variation as much of the cost of debt is at a fixed rate of interest. Variations can arise due to variation in inflation and LIBOR rates for debt that is linked to an index.

[24] Values are taken from Figure 4.6 of our PR19 draft determination cost of capital technical appendix

RoRE risk range of -1.09% to 0.93% in relation to companies' base equity return values.

For SES Water and Bristol Water, we amend the risk range for embedded debt to take account of our rejection of the company-specific adjustment. We adjust the upside and downside cost risks by -35 bps, consistent with our view on the premium faced by a notionally structured small company on the cost of embedded debt that is set out in the 'PR19 draft determination: Cost of capital: technical appendix'. Applying this adjustment to the 10th and 90th percentile values referred to above, we estimate a risk range for embedded debt costs of -1.50% (P10) to 0.52% (P90) based on their notional structures.

Taking account of our overall assessment of the risk range for new debt and embedded debt, our overall assessment of the risk range for financing costs is from -1.16% to 1.23% except for SES Water and Bristol Water where the range is from -1.65% to 0.74%.

C-MeX and D-MeX risk ranges

In our draft determination we intervened where companies proposed risk ranges for C-MeX and D-MeX lying outside our calculation of the respective cap and collar values for PR19.

For our final determination we apply the following approaches for the calculation of C-MeX and D-MeX RoRE risk ranges:

- For C-MeX we use a common approach to calculate a risk range for each company that corresponds to its cap and collar values calculated as 12% of residential retail revenue.
- For D-MeX we use a common approach to calculate a risk range for each company that corresponds to its cap and collar values with a cap of 6% and collar of 12% of developer services revenue.

The combined C-MeX and D-MeX RoRE risk range for each company in our final determination is shown in Figure 3.10.

Figure 3.10: PR19 C-MeX and D-MeX risk ranges calculated as a percentage of regulatory equity

Source: Ofwat

Revenue and water trading risk ranges

In our draft determinations we reiterated our view that the revenue risk faced by water companies is low as a result of the reconciliation mechanisms and regulatory protections in place. This followed the detail we set out in 'Technical appendix 3: Aligning risk and return' of our initial assessment of business plans that explained the limited scope for revenue risk in the water and wastewater sectors (summarised in the text box below).

Text box 3.1: Summary of reasons for low revenue risk levels

For the water resources and network plus price controls minimal revenue is at risk because the revenue forecasting incentive mechanism allows companies to adjust for over/under recoveries (subject to a two year lag). A small financial penalty applies where the adjustment is for more than 2% of allowed revenue. For the network plus price control there is also a mechanism to correct revenue levels for actual versus forecast numbers of connections, with penalties only applying in the case of large forecasting errors.

The revenue risk for the water resources price control associated with bilateral market entry (if the market is opened in England during 2020-25) is likely to be small.

For the bio resources price control, an average revenue control approach for sludge volumes in 2020-25 will mean that companies' exposure to volume risk is limited. Our analysis indicates that companies should also only be exposed to minimal revenue risk in respect of the forecasting accuracy incentive for sludge production.

The residential retail price control is an average revenue control with a revenue reconciliation for the number of customers served. For companies who are subject to the business retail price control, revenue from business retail customers represents a small proportion of their total revenue. The revenue risk associated with these price controls arises from bad debt risk, which companies are strongly incentivised to manage.

Five companies refer to risks associated with water trading that we include in RoRE risk totals for revenue:

- Northumbrian Water;
- Dŵr Cymru;
- Portsmouth Water;
- Affinity Water; and
- Wessex Water.

In our final determinations, we include the revenue and water trading risk ranges used by the companies in their representation submissions.

3.4 Our final determination decisions

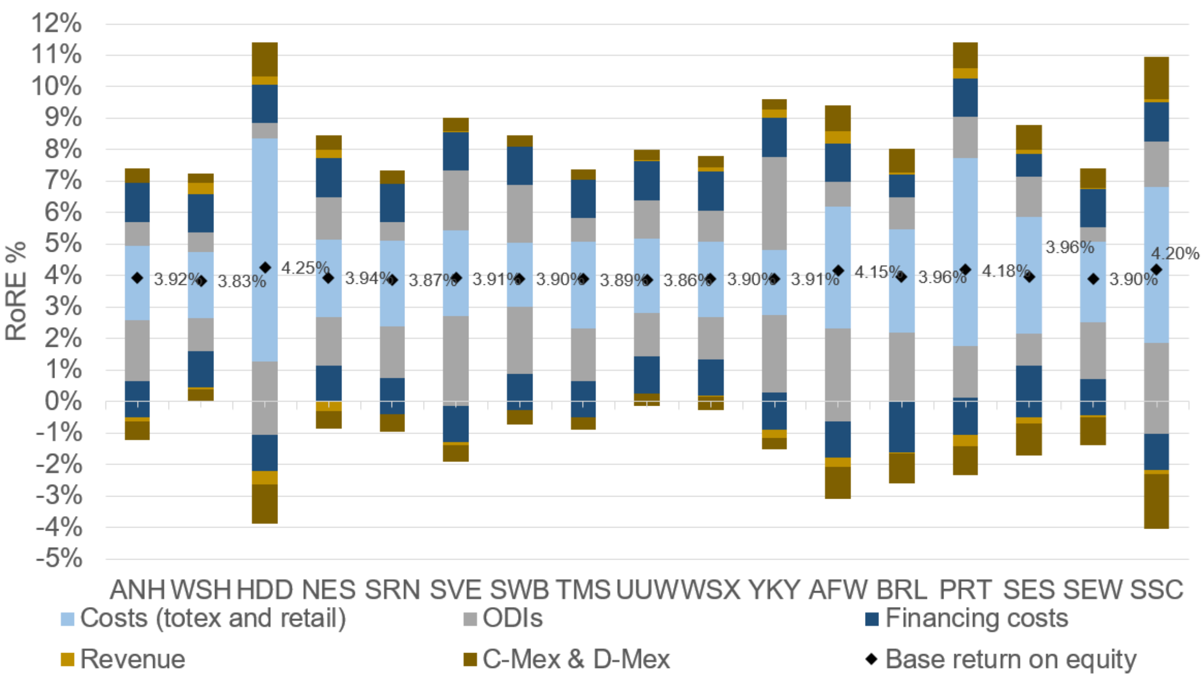
In figure 3.11 we set out our final determination risk ranges for each company, compared to the base equity return, showing the contribution from each risk component, taking account of the approach set out in section 3.2.

In summary, the risk ranges for the final determination reflect our view of the range of possible performance that may be achieved in 2020-25 as follows:

- The costs risk range in figure 3.11 includes the risk ranges for both totex and retail costs. The totex range is calculated for each company taking account of our assessment of past performance by companies against our cost benchmarks and company views on retail risk ranges subject to some minor adjustments for four

companies. Our calculations take account of cost sharing rates that apply for each company in our final determinations.
- The ODI risk range takes account of our assessment of the expected risk range based on the performance commitments and ODI incentive rates in our final determinations.
- We revise the presentation of the financing cost risk range to take account of the range for both new and embedded debt on the basis of a notional capital structure.
- We show C-MeX and D-MeX risk ranges to reflect the full range of available out / under performance adjustments under PR19 cap and collar limits.
- The revenue risk range takes account of company views of revenue risks. As set out above we consider revenue risk to be limited for the water sector.

Figure 3.11: PR19 final determination risk ranges calculated as a percentage of regulatory equity



Source: Ofwat

The base equity return is underpinned by our allowed return on equity in our final determination. The allowed return on equity is applied to the portion of the RCV that is assumed to be financed by equity using our 60% notional gearing assumption. However, base equity return varies slightly across companies because:

- The retail margin varies between companies when measured against regulatory equity. The retail margin typically has a beneficial impact on the calculation of the base equity return for smaller companies because wholesale revenues and net

retail costs are larger as a proportion of regulatory equity than for water and sewerage companies.
- The blended real cost of equity will vary between companies according to the proportion of the RCV (and notional regulatory equity) that is indexed to RPI or CPIH. The proportion of RCV that is linked to RPI or CPIH varies between companies according to factors that include the size of the investment programme, the proportion of totex that is capitalised and RCV run-off rates.

We note that the risk ranges for some companies extend below a return on regulatory equity of zero. For a company with the notional capital structure on which our determinations are made, this may imply the company would not be in a position to meet its debt interest costs. We consider this scenario is unlikely to occur in practice as it would require downside performance to materialise across the range of risks shown in the chart, and in practice (and as companies have shown in the risk analysis in their business plans), there is significant scope for company management to mitigate the downside.

In 2020-25, outcome delivery incentive reconciliation adjustments for company performance in delivering against their performance commitments will be reconciled within the period of the price control for all companies. To mitigate the scope for extreme cashflow (and bill) volatility associated with outcome performance delivery reconciliations in 2020-25 we propose to offer companies the option, in the PR19 reconciliation rulebook, to ask us to defer incentive adjustments that exceed +/-1% of notional equity to a subsequent year in the regulatory period, or for reconciliation at PR24. We propose to consider such a request in the context of a company’s expected performance and our duties in the round.

4 Uncertainty mechanisms

Key messages for our final determinations:

- We introduce reconciliation mechanisms for changes in business rates and Environment Agency abstraction licence charges with a cost sharing rate of 75 (customers):25 (company) that will be applied at PR24.
- We apply bespoke Notified Items for:
  - Bristol Water relating to costs for abstractions from the Gloucester and Sharpness Canal.
  - Anglian Water and Affinity Water associated with costs that may arise in the event that a ban on the outdoor use of metaldehyde is delayed or not reintroduced.
- We include Notified Items for companies where the relevant water company might, in future, need to deliver a 'direct procurement for customers' scheme.

The PR19 methodology set out that companies in this sector have significant protection from risks. Given the existence of other risk mitigation measures, the PR19 methodology said that final determinations would only include bespoke uncertainty mechanisms where robust and compelling evidence was presented for that item. As uncertainty mechanisms alter the balance of risk to customers, we set a high evidential bar for bespoke uncertainty mechanisms to be included in our determinations.

There are three basic types of uncertainty mechanism that can be included in our final determinations:

- Notified Items referring to costs not allowed for in our PR19 determination, which potentially allow for determinations to be reset in 2020-25;
- reconciliation mechanisms which can lead to upward or downward reconciliation of costs at PR24; and
- revenue driver mechanisms that change revenue allowances in-period.

In some cases uncertainty mechanisms may be associated with ODIs.

It is also possible for companies to refer the following matters to us in the period 2020-25 under the provisions of Condition B in licences for interim determination of price controls where a materiality threshold has been exceeded:

- relevant changes of circumstances and any Notified Items; and
- circumstances having a substantial adverse or favourable effect on the Appointed Business.

In assessing company claims for uncertainty mechanisms, we consider whether the issue is material to the company, the extent to which management is able to control the risk or the impact of that risk and whether the addition of an uncertainty mechanism adequately protects the interests of customers. Our PR19 methodology set out that requests for Notified Items should be underpinned by risk analysis and supporting commentary.

4.1 What we said in our draft determinations

Our draft determinations made limited provision for bespoke uncertainty mechanisms that were incremental to those we had set out in the PR19 methodology.

We included a Notified Item for Bristol Water associated with possible changes to its costs for abstracting water from the Gloucester and Sharpness Canal. The mechanism set out that customers should bear only 75% of the increased costs if the materiality test for an interim determination is passed.

We proposed to consider uncertainty mechanisms in our final determination for Anglian Water, Dŵr Cymru, Southern Water, Thames Water and United Utilities to address the possibility that, in some circumstances, ‘direct procurement for customers’ schemes might need to be brought back in-house.

We rejected the following proposed uncertainty mechanisms:

- Affinity Water’s proposal for an uncertainty mechanism in respect of sustainability reductions to water abstraction levels in its Brett catchment area because, at that time, we considered the issue should be addressed under Water Industry National Environment Programme (WINEP) programme arrangements.
- Anglian Water’s proposals for:
  - a reconciliation mechanism to return 90% of cost allowances in case of a slippage in the company’s WINEP programme; and
  - a reconciliation mechanism to return a share of savings on proposed growth expenditure.

- Thames Water's proposals for:
  - a reconciliation mechanism for a difference between its business rate costs and its PR19 business rates cost allowances;
  - a reconciliation mechanism in respect of costs associated with the Security and Emergency Measures Direction (SEMD); and
  - a reconciliation mechanism, to return costs to customers, covering the first phase of a north-east London resilience scheme and projects under a national environment programme.

4.2 Stakeholders' representations

In their representations, some companies provide further evidence in support of claims for uncertainty mechanisms that were not allowed in our draft determinations or make claims for additional uncertainty mechanisms. We summarise the claims below:

- Affinity Water asks us to reconsider our rejection of an uncertainty mechanism in respect of costs associated with sustainability reductions to water abstraction levels in its Brett catchment area.
- Affinity Water and Anglian Water request uncertainty mechanisms associated with possible additional costs resulting from the absence of, or delays in introducing, a ban on the outdoor use of metaldehyde.
- Anglian Water requests an uncertainty mechanism in relation to increased costs arising from the Department for Transport's (DFT's) Specification for the Reinstatement of Openings in Highways if we consider the costs are not covered as a relevant change of circumstance in its licence.
- Anglian Water requests three uncertainty mechanisms for costs associated with customer growth levels that it considers are not covered by PR19 provisions such as the Developer Services Revenue Adjustment (DSRA).
- Northumbrian Water requests a PR24 reconciliation mechanism to address the possibility of increased lane rental costs under traffic management legislation.
- Portsmouth Water raises the possibility of including uncertainty mechanisms in its separate price control for the development of Havant Thicket winter storage reservoir.
- A number of companies raise specific concerns around the uncertainties arising from business rates - further information is provided in the 'Securing cost efficiency technical appendix'.

In its representations, Anglian Water raises a broad point about the range of uncertainty mechanisms, both of the type referred to in this section and other mechanisms that build in reconciliation adjustments to the PR19 framework. Anglian

Water refers to greater uncertainty around achievable outcomes and increased risk levels for PR19 and comments that an associated increase in the range of uncertainty and adjustment mechanisms add to complexity and could undermine the general principle that it is for companies to manage the risks of unforeseen change rather than customers. However, in its representations, Anglian Water proposes uncertainty mechanisms relating to metaldehyde, the reinstatement of openings in highways, and customer growth levels referred to above.

Several companies make representations about business rate cost uncertainty in 2020-25, in particular SES Water, Severn Trent Water and Thames Water. Dŵr Cymru had also proposed an uncertainty mechanism for business rates in its September 2018 business plan.

4.3 Our assessment and reasons

We retain the view set out in our PR19 methodology and our draft determinations that there should be a high bar for us to accept uncertainty mechanisms given the protections already in place and because such mechanisms shift the balance of risk to customers. However, bespoke uncertainty mechanisms can be used in some limited circumstances as part of an appropriate balance of risk.

We recognise that PR19 introduces more uncertainty mechanisms than previous price reviews. However, where we introduce uncertainty mechanisms we do so carefully, taking care to ensure the uncertainty mechanisms we adopt balance the interests of companies and their investors with customers. In assessing claims for bespoke uncertainty mechanisms we consider claims against the following criteria:

- the uncertain costs could be material such that existing risk protection mechanisms do not provide adequate protection;
- costs arising are beyond prudent management control; and,
- the mechanism proposed adequately protects the interests of customers.

4.4 Our final determination decisions

For our final determinations, we have introduced a reconciliation mechanism for changes in business rates because:

- There is uncertainty about business rates costs because the Valuation Office Agency (VOA) will be carrying out revaluation exercises in the period 2020-25, and increases (or decreases) in cost levels could be material.

- Companies can only exercise limited control over cost levels by engaging with the VOA and, possibly, by considering the business rate implications of asset development choices.

We have also introduced a reconciliation mechanism for Environment Agency abstraction licence costs for our final determinations because:

- The Environment Agency expects to consult on changes to its basis for setting abstraction licence fees during 2020 meaning that there is material uncertainty about company cost levels in 2020-25.
- Companies can only exercise limited control over cost levels by engaging with the consultation process and providing accurate information when required for licence fee setting purposes.

In each case, the cost variance to the company's PR19 cost allowance will be subject to a 75 (customer share):25 (company share) symmetrical sharing rate in the totex reconciliation at PR24. This means that companies will still be incentivised to incur costs efficiently, whilst receiving appropriate protection against material cost increases. Conversely, customers will receive a benefit if outturn costs are lower than the allowance levels we have set. The approach to the reconciliation adjustments will be set out in the PR19 Reconciliation Rulebook. Further information is provided in the 'Securing cost efficiency technical appendix'.

We will consider additional adjustments for revisions to efficiently incurred, incremental Environment Agency abstraction charges on a case by case basis at PR24 where changes in costs are material.

It is possible that a number of companies could incur costs if a ban on the outdoor use of metaldehyde is delayed or not reintroduced. For most companies, the costs we have identified are not material, and companies are protected by the usual cost sharing rates and, in some cases under other cost adjustment mechanisms. However, we accept that potential costs forecast by Affinity Water and Anglian Water could be material. We introduce a Notified Item to the final determinations of Affinity Water and Anglian Water as we consider this to be the approach that best protects the interests of customers and provides companies protection to the extent that material costs arise.

For our final determinations, we retain the Notified Item for Bristol Water associated with its costs for abstracting water from the Gloucester and Sharpness Canal. The uncertainty mechanism, if triggered, has the effect of altering the cost sharing rate to 75 (customer share):25 (company share) for any relevant increase or decrease in costs.

In our final determinations we do not allow bespoke uncertainty mechanisms for the following:

- We do not include Affinity Water's request for an uncertainty mechanism in respect of sustainability reductions to water abstraction levels in its Brett catchment area because we consider that solutions could be delivered by 'direct procurement for customers' as set out in the 'Delivering customer value in large schemes technical appendix'. We have allowed costs to progress this scheme through a 'direct procurement for customers' process. As set out below, we include a Notified Item for this issue in case the scheme needs to be constructed by Affinity Water if we agree that a 'direct procurement for customers' no longer demonstrates value for money.
- We do not include Anglian Water's proposal for a mechanism related to its expected increased costs arising from the Department for Transport's Specification for the Reinstatement of Openings in Highways[25]. We consider the company is adequately protected by the existing cost sharing arrangements. Furthermore, we note the Department for Transport considers there could be net savings for businesses under the proposed changes, noting that many innovations in reinstatement techniques and materials have been introduced that are not covered by the existing code.
- We do not include Northumbrian Water's requested PR24 reconciliation mechanism for increased lane rental costs under traffic management legislation. We consider there is insufficient evidence that the uncertain costs are material in the context of the cost sharing arrangements already in place. We also consider that companies have control over the planning and coordination of works which allow them to manage costs that materialise. We also note that no other company has requested such a mechanism and insufficient evidence has been provided to support a view that Northumbrian Water is more exposed to such costs than other companies. We consider that the cost allowances we have provided, together with the totex sharing mechanism provide adequate protection.
- We do not include any uncertainty mechanisms for the costs Portsmouth Water will incur associated with the development of Havant Thicket winter storage reservoir because the separate price control arrangements now allow for a review mid-way through the 10 year control period.
- We do not include a proposal by Anglian Water in its representation on our draft determination for three uncertainty mechanisms for costs associated with customer growth levels that it considers are not covered by PR19 provisions such as the Developer Services Revenue Adjustment (DSRA). It proposes there should be unit cost adjusting ODI mechanisms. We rejected a similar proposal by

[25] DFT 2019 Reinstating a road after street works: new edition of the code of practice (consultation)

Anglian Water in our draft determination. Having reviewed the information available, we consider that the cost risks concerned are adequately addressed by the DSRA, the provisions for cost recoveries from developers and the totex cost sharing arrangements. Further information is provided in the ‘Cost allowances’ section of the final determination document for Anglian Water.

As proposed in our draft determinations, we are including notified items in our final determinations for Anglian Water, Dŵr Cymru, Southern Water, United Utilities, Affinity Water and Bristol Water to address the possibility that, in some circumstances, ‘direct procurement for customers’ schemes might need to be delivered directly by the relevant water company rather than through a competitively appointed provider. Further information on this is provided in the ‘Delivering customer value in large projects’.

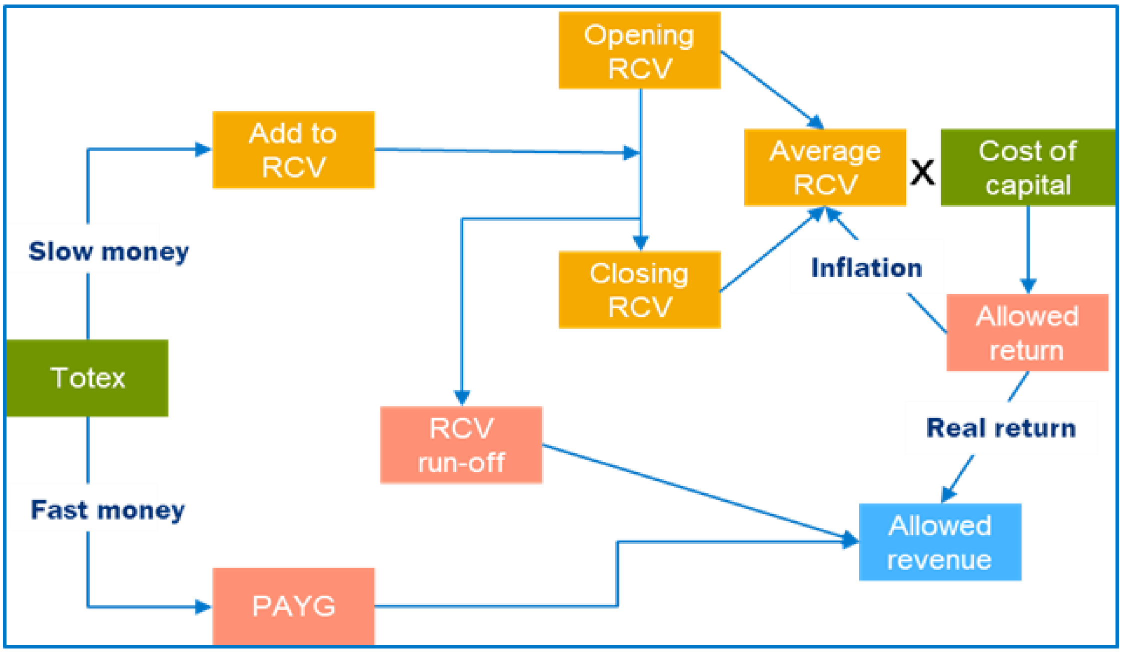
5 Cost recovery now and in the long term for wholesale price controls

Key messages for our final determinations:

- We maintain the overall approach to setting PAYG and RCV run-off rates that we applied for draft determinations.
- Taking account of company representations we have revised our approach to the mix of operating and capital expenditure to reflect our totex allowances. This forms the basis of our calculation of PAYG for all companies except Severn Trent Water where we accept its approach to determine PAYG over a longer term than the five years of the price review period.
- We accept the proposals put forward by Severn Trent Water and United Utilities Water to make RCV run-off adjustments that give the effect of a full transition to CPIH indexation as supported by customers.
- We retain the approach used in our draft determinations for determining the appropriate method of advancing revenue through PAYG and/or RCV run-off levers for the assessment of financeability on the basis of the notional capital structure. The adjustments we make reflect the nature of the constraint along with evidence set out in company business plans and representations.
- We make adjustments to the underlying PAYG rates for 12 companies (Anglian Water, Dŵr Cymru, Northumbrian Water, Southern Water, Thames Water, Wessex Water, Yorkshire Water, Affinity Water, Portsmouth Water, SES Water, South East Water and South Staffs Water) for financeability on the basis of the notional capital structure.
- We make adjustments to RCV run-off rates for Dŵr Cymru and South East Water for financeability on the basis of the notional capital structure and their low RCV run-off rates in comparison to the sector. We make a further adjustment to RCV run-off rates for Dŵr Cymru related to its voluntary contribution to its social tariff which has stakeholder support.

Companies must recover the allowed costs through customer bills over time. Costs allowed for in our determinations for the wholesale controls are recovered from allowed revenue in one of two ways; expenditure can be recovered in the year it is incurred through PAYG or, it can be added to the RCV and recovered over a longer period through RCV run-off. We illustrate this in Figure 5.1.

Figure 5.1: Regulatory building blocks and cost recovery for the wholesale controls



Notes: PAYG represents totex expensed in the year it is incurred. Totex not expensed is added to the RCV and 'run-off' over a longer period. We maintain a separate RCV for each wholesale control, and at PR19, RCV for each control is separately indexed to either CPIH or RPI in accordance with our transition of price controls to a CPIH basis. RCV run-off represents amortisation of the RCV where, in broad terms, an equivalent reinvestment is required to maintain the assets in steady state.

Companies can balance the recovery of costs between different generations of customers on a net present value neutral basis by making adjustments to PAYG and RCV run-off. Such adjustments alter cashflow profiles and can be used to improve financial headroom where it is limited in the financial ratios for the notional capital structure. In the PR19 methodology, we set out that each company should explain the assumptions underpinning its choice of PAYG and RCV run-off rates, explaining how the rates reflect proposed expenditure and investment plans within each control, and take account of customers' preferences on the impact of their PAYG and RCV run-off choices on bills, both in the short and long term. We consider it is reasonable for companies to make some use of PAYG and RCV run-off rates to address issues around financeability of the notional structure driven by the cash flow effect of a real return on an inflating capital value. We discuss this further in section 6.3.4.

In ths section, we summarise the approach we took to cost recovery in the draft determinations and the issues raised in representations. We set out our approach and decisions in our final determinations.

5.1 What we said in our draft determinations

Pay as you go rates

We asked companies to set out their approach to setting underlying PAYG rates in business plans before applying any adjustments, for example to smooth bills or address a financeability constraint on the notional capital structure. All companies set PAYG rates with reference to underlying costs, reflecting the mix of operating costs and capital expenditure to some extent.

Our draft determinations incorporated our view of efficient totex allowances, which for most companies differed from the view of costs set out in business plans. Therefore, for most companies, our draft determinations started with an approach to set PAYG rates that applied a technical adjustment to align PAYG rates to our view of operating costs in efficient totex (excluding grants and contributions) allowed for in our draft determinations.

The calculation of PAYG rates in our draft determinations followed the approach each company applied to the treatment of infrastructure renewal costs depending on the extent to which companies had included these costs in PAYG or had capitalised them to the RCV.

For most companies, our draft determinations resulted in small changes to PAYG rates. We made adjustments for three companies - Anglian Water, Portsmouth Water and Dŵr Cymru - to reflect the transfer of specific projects to separate controls or to 'direct procurement for customers'. We did not apply the technical adjustment to PAYG rates for Severn Trent Water, as we accepted the evidence in the company's business plan in support of its longer term view of costs in determining PAYG rates.

Alongside the technical interventions, we made interventions to reduce the PAYG rates for the following companies:

- For Southern Water we intervened to align PAYG rates with operating costs and infrastructure renewal expenses consistent with the approach of many other companies.
- We intervened to remove the PAYG adjustments proposed by South Staffs Water in the assessment of financeability on the basis of the notional capital structure and to smooth long term bills
- As part of our technical intervention for Wessex Water we aligned PAYG rates with operating expenses and infrastructure renewal expenditure net of grants and contributions within operating expenses within allowed totex for the draft determinations.

For Dŵr Cymru, Thames Water and SES Water, our draft determinations included PAYG adjustments to address financeability constraints. For Affinity Water, Portsmouth Water and South East Water, we considered smaller PAYG adjustments than companies proposed were necessary to meet a constraint on the basis of the notional capital structure.

We published our calculations in the draft determination 'pay as you go (PAYG) model' for each of the slow track and significant scrutiny companies alongside our draft determinations.

RCV run-off rates

We asked companies to set out their approach to setting underlying RCV run-off rates in business plans before applying any adjustments, for example to smooth bills or address a financeability constraint on the notional capital structure.

In our assessment of RCV run-off rates, we considered the rates proposed by each company for each wholesale control, and nature of investment. For the water resources and the bioresources wholesale controls, companies provided separate RCV run-off rates for post-2020 investment. In their business plans, most companies set out their approach to setting RCV run-off rates with reference to the current cost depreciation or the average asset lives of the assets underpinning the regulatory capital value of the company.

Our draft determinations largely reflected the RCV run-off rates companies had proposed in their April business plans. Our determinations for Anglian Water and Bristol Water included the proposals by each company to reduce RCV run-off rates to assist affordability for customers in 2020-25. We accepted the reductions to RCV run-off rates proposed by Anglian Water to smooth the transition to underlying rates over two price review periods and by Bristol Water to replicate a bill profile incorporating a slower transition to CPIH.

For Hafren Dyfrdwy and Affinity Water we intervened to reduce RCV run-off rates as we considered the companies had provided insufficient evidence that their proposals were supported by customer preferences.

We did not apply technical adjustments to RCV run-off rates in the draft determinations except for Portsmouth Water in relation to separating the costs associated with the Havant Thicket reservoir from its water resources control.

We set out that we would consider representations where companies considered the interventions in our draft determinations would require a change in RCV run-off rates. We said we would apply a high evidential bar to representations that propose further increases to RCV run-off rates given the impact on customer bills.

5.2 Stakeholders' representations

Adjustment of PAYG rates for the proportion of operating costs in allowed totex

In their representations, no company disagreed with the requirement to adjust PAYG rates to reflect changes to allowed totex. However, thirteen companies state that the technical adjustment we made to PAYG rates in draft determinations did not adequately reflect the interventions made to allowed totex as a result of our cost assessment. In particular, a number of companies state that without changes for final determinations, PAYG revenue may not be sufficient to cover operating expenses and financial ratios will be incorrectly stated. Some of these companies provide updated PAYG rates alongside the updated cost tables in their representations.

Bristol Water agree with the technical intervention to PAYG rates but sets out we should remove the adjustments to PAYG rates in its April business plan for bill profiling as these are no longer relevant on the basis of other changes to the plan.

The use of financial levers to address weak financial ratios

Five companies accept the approach to advance revenue to solve a financeability constraint and request further adjustments to PAYG or RCV run-off rates to address financeability constraints (Dŵr Cymru, Affinity Water, Portsmouth Water, South East Water and South Staffs Water). In light of the lower allowed return on capital between fast track and slow track draft determinations, Severn Trent Water and United Utilities state that further revenue advancement is likely to be required to support financeability.

Anglian Water, Northumbrian Water and Southern Water suggest that PAYG adjustments do not improve financeability as they are not recognised by some of the credit rating agencies and are not credit enhancing. Other companies, such as South East Water, United Utilities and Portsmouth Water note that advancing revenue does not improve adjusted interest cover ratios used by certain rating agencies in their credit assessment, although these companies accept revenue advancement in the draft determination or request this in representations to address other financial ratios.

Bristol Water considers the use of financial levers is a sensible approach to support minimum financial ratios for the notional capital structure. Thames Water removes the PAYG uplift applied in the draft determination from the revised plan submitted with its representations as it incorporates a higher return on capital. However, the company agrees that in some circumstances it may be appropriate to adjust the underlying PAYG rate; for example, where notional financial ratios are constrained. Thames Water agrees that increasing the short-term cashflow is beneficial, to some extent, to some financial metrics and where financial ratios are below appropriate metrics then it recommends that Ofwat continue to use the PAYG rate to improve cashflows during the period.

Company-specific representations

Dŵr Cymru requests an increase to RCV run-off rates across all wholesale controls by on average 0.23 per cent to improve certain financial ratios. The company states that evidence submitted with its business plan supports a range for RCV run-off rates for all controls and it selected rates at the lower end of the range. Dŵr Cymru sets out that even with the proposed increase, RCV run-off rates remain amongst the lowest in the sector and the rate for each price control sits within the ranges implied by its third party assessment of asset data. The company sets out that the resulting average bill is consistent with the April business plan which had high levels of support from customers.

In its representations to its fast track draft determination, United Utilities requests an increase in RCV run-off rates specifically to effect a faster transition to CPIH. The company sets out that this could reduce the long term trajectory of bill increases in future periods. The company undertook additional customer research in relation to bill profiles resulting from various degrees of transition. The highest level of support is for full transition, however United Utilities proposes to limit the increase to RCV run-off rates at a level that caps bills in line with its September 2018 business plan. In its representation to the reduced allowed return on capital for the slow track and significant scrutiny draft determinations and the indication of a further reduction for final determination, United Utilities state there is an increased need for additional CPIH transition to maintain bills in line with customer preferences and to support financeability of the notional and actual company.

United Utilities state that a technical intervention is also required for RCV run-off rates to reflect our interventions in the allocation of RCV between the water resources and water network plus wholesale controls. The higher allocation of RCV to water resources which has lower RCV run-off rates results in a reduction in RCV run-off revenue. The company sets out that without making an adjustment, RCV run-off rates no longer reflect its approach to recovering an amount equivalent to current cost depreciation.

Dŵr Cymru makes a representation for an increase in RCV run-off rates to support its social tariff at the level set out in its business plan. In its business plan, Dŵr Cymru commits to £11 million per annum of company contributions to the social tariff through its social dividend. Dŵr Cymru sets out that the company contribution is required because the full social tariff commitment cannot be met directly by the level of cross-subsidy supported by customers.

Dŵr Cymru sets out that the lower allowed return on capital for the draft determination, along with the likelihood of expenditure in excess of allowed totex results in insufficient to cover the company contribution from the social dividend. Dŵr Cymru also sets out that in reality, the company contribution operates as 'revenue foregone' and therefore impacts on financial ratios and financeability on the basis of the notional capital structure. The company argues the level of the notional financial ratios resulting from the lower allowed return on capital and allowed totex are such it will not be able to maintain the social tariff on the basis of 'revenue foregone' and that the use of financial levers is required to maintain financeability of the notional company. In further correspondence, Dŵr Cymru provide evidence of support for its proposal from the Welsh Government and for its approach from the Consumer Council for Water and from its Customer Challenge Group. It commits that any revenue advanced to support its self-funded social tariff would not be recovered from customers.

A fair balance of cost recovery between current and future customers

The Consumer Council for Water make two representations in relation to the balance of cost recovery between current and future customers:

- the PAYG ratio should reflect the balance of short and long term cost recovery relative to the companies' balance of operational activity and longer term capital investment; and
- Ofwat should be clear in final determinations where changes in the cost assessments have led to a revised PAYG rate and confirm that the ratio strikes the appropriate balance of cost recovery from current and future customers. When costs are reallocated from one category to another (e.g. from 'base' to 'enhancement'), this can have a knock-on effect on the PAYG ratio as capital costs are typically recovered in the longer term.

5.3 Our assessment and reasons

In this section we provide an assessment of the issues raised in representations. We present a summary of our assessment in Appendix 1. In section 5.4 we comment in further detail on the issues that are specific to individual company representations.

Challenges in representations that PAYG rates should be adjusted for the proportion of operating costs in allowed totex in final determinations

Several companies raise concerns that PAYG revenue is not reflective of the allocation of operating costs in totex as the technical intervention we applied in draft determinations did not adequately take account of the nature of interventions, particularly where interventions were largely to capital enhancement expenditure.

For final determinations, we change our approach to allocating totex between operating and capital expenditure to take account of changes made to base and enhancement expenditure. We shared our revised approach with all water companies and have considered the feedback received. We set out our approach for allocating totex in final determinations in the 'Securing cost efficiency technical appendix'.

We maintain the overall approach to setting PAYG and RCV run-off rates as applied for draft determinations, including adjusting PAYG rates where appropriate to align with our view of the allocation of operating and capital expenditure. We illustrate the technical adjustment we make to PAYG rates for final determinations in text box 5.1.

Text box 5.1: Illustration of the technical intervention to PAYG rates

We illustrate below our approach to determining the PAYG rates for our final determination. We calculate PAYG rates for each year of the price determination based on the profile of operating expenditure in allowed totex from our assessment of efficient costs. In doing so, we have followed each company's approach to the treatment of infrastructure renewals expenditure. Our approach to assessing the annual profile of totex and the mix of operating and capital expenditure is set out in 'Securing cost efficiency technical appendix'.

Figure 5.2: Company X sets PAYG rates based on operating costs as a proportion of totex:

Water resources wholesale control	Company X business plan	Company X final determination	
Opex	60	57	
Capex	40	35	
Totex	100	92	
Opex/totex = PAYG	60%	62.0%	We maintain PAYG as opex/totex
PAYG revenue	60	57	

We allow totex of 92 in our final determination for company X. Our cost assessment reduces operating costs by 5% (3/60) and capital costs by 12.5% (5/40). Therefore, we increase PAYG rates to 62.0% to ensure company X recovers operating costs through PAYG (92 x 62.0%).

Figure 5.3Company Y sets PAYG rates based on operating costs plus capitalised infrastructure renewal expenditure (IRE) as a proportion of totex:

Water resources wholesale control	Company Y business plan	Company Y final determination	
Opex	50	45	
Capex - IRE	10	46	
Capex – other	40		
Opex + IRE	60		
Totex	100	91	
Opex/totex	50%	49.5%	
PAYG (opex + IRE/totex)	60%	59.3%	
PAYG as a percentage of opex/totex	120%	120%	We maintain the proportion of PAYG to opex/totex

PAYG revenue	60	54	

We allow totex of 91 for company Y. Our cost assessment reduces operating costs by 10% (5/50) and capital costs by 8% (4/50). Operating costs now represents 49.5% of totex. We do not separately identify infrastructure renewal expenditure in our totex allowances therefore we apply the percentage uplift to opex/totex as per the company's April business plan to arrive at the PAYG rates for the final determination; this maintains our efficiency assessment across all allowed costs.

Challenges in representations in relation to the use of financial levers to address weak financial ratios

We set out in the PR19 methodology that we will use PAYG and RCV run-off rates to advance revenue to improve cash flows and financial ratios to address financeability constraints. A number of companies propose the use of financial levers in business plans and we applied this to a further three companies for the draft determinations.

As set out in section 5.2, companies set out a range of views on the use of financial levers to address financeability constraints. Several companies agree with the use of advanced revenue through the use of PAYG and RCV run-off rates; others stating that revenue advancement does not improve financeability as credit rating agencies adjust for this in rating assessments.

We maintain the approach set out in the PR19 methodology to use PAYG and RCV run-off rates to increase in-period cash flows where this is required to improve weak financial ratios. We consider that advancing revenue in a net present value neutral way is an approach that is appropriate to support financeability on the basis of the notional capital structure. We set out our rationale in section 6.3.

Challenges in representations in relation to the balance of cost recovery between current and future customers

The Consumer Council for Water set out that the PAYG ratio should reflect the balance of short and long term cost recovery relative to the companies' balance of operational activity and longer term capital investment.

The PR19 methodology sets out that we expect companies to take into consideration the underlying expenditure and investment plans in developing an appropriate approach for cost recovery in the period 2020-25 and over the longer term, including customer support for the resulting bill profile.

Our draft determinations set out interventions we made to companies' plans in relation to underlying PAYG rates and RCV run-off rates. This included the technical adjustment to PAYG rates to match the nature of allowed totex. We consider the technical adjustment and in particular the refined approach to the allocation of totex to PAYG and RCV in our final determinations as set out above maintains the balance between current and future customers.

We make adjustments to PAYG and RCV run-off rates only where we assess higher cash flows are required to improve financeability of the notional company as set out in the PR19 methodology, or where requested by companies and this is accompanied by convincing evidence that customers support the resulting bill profiles. Our approach protects customers from higher bills in the long run, and is the approach that best balances all of our duties, taken in the round.

5.4 Our final determination decisions

We summarise our approach to setting PAYG and RCV run-off rates for final determinations in text box 5.2.

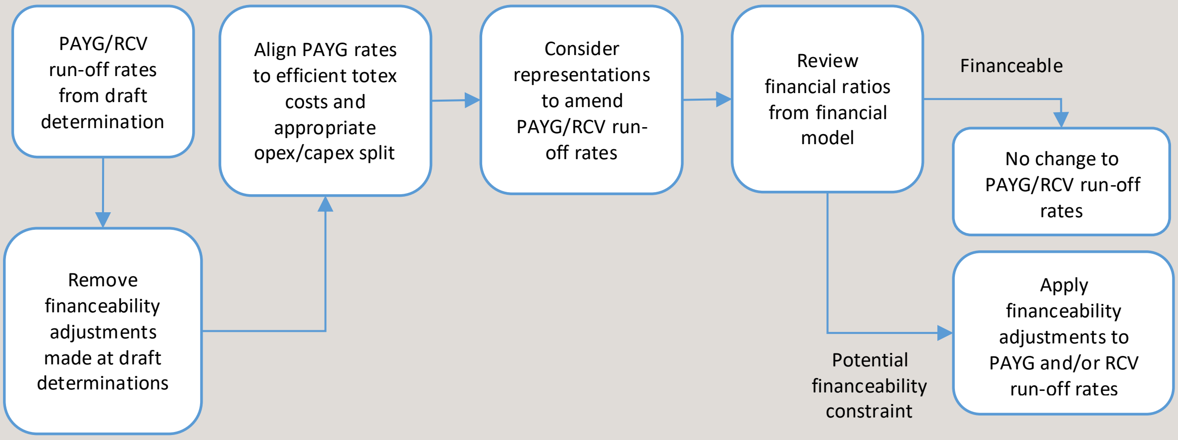
Text box 5.2: Approach to setting PAYG and RCV run-off rates for final determinations

The flow chart below sets out our approach to setting PAYG and RCV run-off rates for final determinations. We start with the rates applied in draft determinations and adjust as follows:

- We remove any adjustments to underlying rates in relation to the draft determinations.
- Apply technical interventions to PAYG rates to reflect our assessment of efficient totex costs and the appropriate allocation of that totex to opex and capex. This applies to all companies (except the final determination of Severn Trent Water which takes a longer term view of operating costs as a proportion of totex).
- Consider the evidence to support any adjustments to PAYG and RCV run-off rates proposed by companies in representations. Apply adjustments where there is convincing evidence that adjustments are justified and in the best interests of customers.

- Make amendments to PAYG and/or RCV run-off rates to ensure our final determinations are financeable on the basis of the notional capital structure. These interventions are set out in section 6 of this appendix.

Figure 5.4. Flow chart of approach to setting PAYG and RCV run-off rates for final determinations:



We also retain our overall approach used in the draft determinations to calculating the underlying PAYG rates before adjustments such as for financeability reflecting the approach taken by companies to recover either: (i) operating costs as a percentage of totex; or (ii) operating costs plus capitalised infrastructure renewal costs as a percentage of totex. We have published our calculation of the PAYG rates for each company alongside our draft and final determinations.

We make adjustments to PAYG and/or RCV run-off rates for 12 companies to advance revenue for reasons of financeability. In three cases these are changes to adjustments made in draft determinations. We set out our overall approach to financeability in section 6.

We summarise our final determination decisions for each company in table 5.1.

Table 5.1: Cost recovery – Adjustments to base PAYG and RCV run-off rates

Water company	Change from draft determination	Rationale	Revenue advanced in 2020-25 in final determination £ million
Anglian Water	We applied the company's PAYG and RCV run-off rates in the draft determination. For the final determination, we increase PAYG rates for all years for all wholesale controls by 1.92%.	We consider it is necessary to advance revenue to improve financeability of the notional structure at the allowed return on capital.	£80 million
Dŵr Cymru	We applied the company's RCV run-off rates in the draft determination. For the final determination we increase RCV run-off rates by 0.23% across all wholesale controls.	We accept Dŵr Cymru's request for an average increase of 0.23% to RCV run-off rates across all wholesale controls to advance revenue to improve certain financial ratios set out in its representations. RCV run-off rates remain within the range supported by evidence in its original business plan and average bills remain at a level supported by customers. Following the increase, Dŵr Cymru's RCV run-off rates remain the second lowest in the sector. This uplift to RCV run-off rates reduces the scope of the adjustment to PAYG and RCV run-off rates required to improve financeability on the basis of the notional capital structure.	£62 million
	In the draft determination, we increased PAYG rates for the water and wastewater network plus controls by 3.4% to improve financeability on the basis of the notional capital structure. For the final determination we reduce the increase to PAYG rates to 1.81% and apply this consistently across all	We concluded in our financeability assessment in the draft determination that an adjustment to PAYG rates to advance revenue was necessary to ensure financeability of the notional structure. In the final determination, we again consider it is necessary to advance revenue to improve financeability of the notional structure at the allowed return on capital, and that it is appropriate for the PAYG and further RCV run-off advancement in addition to the RCV run-off	£84 million

Water company	Change from draft determination	Rationale	Revenue advanced in 2020-25 in final determination £ million
	controls. In addition, we increase RCV run-off rates for RCV inflated by RPI by 0.16%	advancement that we have accepted in the company's representation.	
	For the final determination we increase RCV run-off rates by a further 0.21% for all wholesale controls.	We accept Dŵr Cymru's request to increase RCV run-off rates to support its company contribution to the social tariff which is supported by stakeholders. The increase advances revenue to offset the £11 million revenue per annum that the company commits it will not collect from customers in supporting its social tariff. By treating the increased revenue allowance as revenue foregone, this effectively writes off an equivalent amount of RCV and reduces bills for all customers in the future. We set out further information in the company's final determination document and we will propose a mechanism in the PR19 reconciliation rulebook to ensure Dŵr Cymru's commitment that this revenue will be foregone is achieved.	£55 million
Hafren Dyfrdwy	In the draft determination we reduced RCV run-off rates for the wastewater network plus control by an average of 1.9%. We also made changes to the adjustments the company proposed to PAYG rates across the water resources, water network plus and wastewater network plus controls. For the final determination we maintain RCV run-off rates in line with the draft determination. We apply similar adjustments to PAYG rates across the water resources,	In the draft determination we reduced the RCV run-off rates proposed by Hafren Dyfrdwy for the wastewater network plus control in its April revised plan to the level of the September 2018 plan. The company accepts this change in its representations The adjustments to PAYG rates for the draft and final determinations reflect Hafren Dyfrdwy's proposal to move allowed revenue from wastewater to water controls to assist affordability and balance bills across water and wastewater taking account of commitments made at the time of the border variation. This has no impact on the overall revenue allowance for the company.	£nil

Water company	Change from draft determination	Rationale	Revenue advanced in 2020-25 in final determination £ million
	water network plus and wastewater network plus controls.		
Northumbrian Water	In the draft determination we applied the company's PAYG and RCV run-off rates in the draft determination. For the final determination, we increase PAYG rates for all years for all wholesale controls by 0.93%	We consider it is necessary to advance revenue to improve financeability of the notional structure.	£25 million
Severn Trent Water	In the draft determination, we applied an increase of 0.2% to RCV run-off rates for the water network plus control. For the final determination we remove this adjustment and apply the company's PAYG and RCV run-off rates.	We concluded in our financeability assessment in the draft determination that an adjustment to RCV run-off to advance revenue was necessary to ensure financeability of the notional structure. For the final determination, we assess the key financial ratios for the notional company to be sufficient without an increase to PAYG or RCV run-off rates, incorporating changes to the allowed return on capital, changes elsewhere in the final determination and changes to assumptions within the financial model.	£nil
Southern Water	In the draft determination, we reduced PAYG rates by on average 5.7% for all network plus wholesale controls. For the final determination, we maintain the approach to setting underlying PAYG rates as operating costs and infrastructure renewal expenditure as a proportion of allowed totex. We increase PAYG rates from the draft determination for	We rejected the company's approach to setting PAYG rates and applied PAYG rates consistent with operating costs and infrastructure renewal expenditure as a proportion of allowed totex. Southern Water do not comment on the intervention to the approach to setting PAYG rates for the draft determination. For the final determination, prior to the uplift our assessment of key financial ratios suggests there is insufficient headroom to a minimum investment grade. We consider the increase in revenue within the period is necessary to improve financeability of the notional structure at the allowed return on capital.	£57 million

Water company	Change from draft determination	Rationale	Revenue advanced in 2020-25 in final determination £ million
	all years for all wholesale controls by 2.17%.		
Thames Water	In the draft determination, we increased PAYG rates by 0.7% for the network plus controls. For the final determination, we amend the increase to PAYG rates, applying an uplift of 1.68% for all years for all wholesale controls.	We concluded in our financeability assessment in the draft determination that an adjustment to PAYG rates to advance revenue was necessary to ensure financeability of the notional structure. For the final determination, we again consider it is necessary to advance revenue to improve financeability of the notional structure at the allowed return on capital.	£125 million
United Utilities	For the final determination, we increase RCV run-off rates by 1% for RCV inflated by RPI for all wholesale controls. We remove the increase to PAYG rates applied in the draft determination.	United Utilities make a representation to use RCV run-off rates to give the effect of a faster transition to CPIH. The company undertook additional customer research and provides sufficient evidence that customers support the bill profile resulting from a faster transition to CPIH. United Utilities proposes an increase to RCV run-off rates for RCV inflated by RPI of up to 1%, capping at a level of allowed revenue consistent with customer bills set out in its business plan. We accept the change in approach for United Utilities. Allowed revenue in the final determination provides sufficient headroom to apply the full 1% increase to RCV run-off rates, replicating a full transition to CPIH in line with customer preferences. Following the increase to RCV run-off rates and other changes elsewhere in the final determination, along with changes to assumptions within the financial model we assess the key financial ratios for the notional company to be sufficient without an increase to PAYG rates.	£nil
	In the draft determination, we accepted the company's increase to	We concluded in our financeability assessment in the draft determination that an adjustment to PAYG rates to	£nil

Water company	Change from draft determination	Rationale	Revenue advanced in 2020-25 in final determination £ million
	PAYG rates of 1.38% for all years for all wholesale controls. For the final determination, we remove the increase to PAYG rates applied in the draft determination.	advance revenue was necessary to ensure financeability of the notional structure. Following the increase to RCV run-off rates and other changes elsewhere in the final determination, along with changes to assumptions within the financial model we assess the key financial ratios for the notional company to be sufficient without an increase to PAYG rates.	
Wessex Water	In the draft determination we reduced PAYG rates by an average of 0.5% to align rates with operating expenditure and capitalised infrastructure renewals and repairs expenditure net of grants and contributions within operating expenditure. We maintain this adjustment for the final determination and increase PAYG rates by 2.08% for all years for all wholesale controls	In the draft determination, we aligned PAYG rates to operating costs plus infrastructure renewal expenses net of grants and contributions. The company does not make any representations in relation to this intervention and we maintain the approach for the final determination. We consider it is necessary to advance revenue to improve financeability of the notional structure at the allowed return on capital.	£41 million
Yorkshire Water	In the draft determination we applied the company's PAYG and RCV run-off rates. For the final determination, we increase PAYG rates for all years for all wholesale controls by 2.43%	We consider it is necessary to advance revenue to improve financeability of the notional structure at the allowed return on capital.	£85 million
Affinity Water	In the draft determination, we reduced the PAYG uplift from on average 7.6% to 1.3% for all wholesale controls. We also removed the adjustments the company	In its business plan Affinity Water identifies a financeability constraint on the basis of the notional company. We accepted the requirement to advance revenue but we considered a smaller increase to PAYG rates was sufficient to enable Affinity Water to be financeable on the basis of the notional company.	£15 million

Water company	Change from draft determination	Rationale	Revenue advanced in 2020-25 in final determination £ million
	proposed to RCV run-off rates, reducing average rates by 0.2% In the final determination, we amend the increase in PAYG rates to 1.11% applied to all years for all wholesale controls.	Affinity Water's business plan includes a number of adjustments to RCV run-off rates resulting in an overall increase of on average 0.2%. The adjustments were to assist affordability and to balance water bills for customers across the periods 2020-25 and 2025-30. We removed the adjustments in the draft determination. For the final determination, we consider it is necessary to advance revenue to improve financeability of the notional structure at the allowed return on capital.	
Bristol Water	In the draft determination we applied Bristol Water's proposed adjustments to PAYG rates to profile bills. For the final determination we remove the adjustments for bill profiling.	Bristol Water proposes adjustments to PAYG rates in its April revised plan to profile bills in an NPV neutral way to be consistent with that presented to customers in its business plan acceptability testing. The company sets out that changes to costs that means that the adjustments no longer result in a consistent bill profile and should be removed. We accept Bristol Water's representation and remove the adjustments.	£nil
Portsmouth Water	In the draft determination, we separated the costs associated with the Havant Thicket reservoir from the water resources control to a separate price control with a ten year price review period. We maintain this approach for the final determination.	We consider the interests of customers are best served by separately regulating the Havant Thicket reservoir within its own price control. In separating the costs associated with Havant Thicket, we maintained Portsmouth Water's assumptions including the allocation of all expenditure to RCV with an RCV run-off rate to depreciate the costs on a straight-line basis to an end date 80 years after the assumed start date for the bulk supply agreement of 1 April 2020. We adjusted the PAYG and RCV run-off rates for the water resources control to remove the Havant Thicket reservoir costs.	£nil
	Portsmouth Water proposes an increase of 4.8% to PAYG rates for the water resources control in its	In the draft determination, we assessed financeability of the notional company excluding the Havant Thicket control. We accepted the requirement for an increase to	£1 million

Water company	Change from draft determination	Rationale	Revenue advanced in 2020-25 in final determination £ million
	revised business plan to improve financial ratios. We reduced the scope of the uplift to PAYG rates, and applied a 0.7% increase to the water network plus control following the removal of activities associated with Havant Thicket from the water resources control. For the final determination, we apply a smaller increase to PAYG rates of 0.50%. However, we apply this across all years to water resources and water network plus controls.	PAYG rates required to provide sufficient headroom in financial ratios, although at a lower level than requested by Portsmouth Water. Following the separation of Havant Thicket costs from the water resources control and consistent with PAYG interventions to other companies, we considered it appropriate to apply the increase to the water network plus control. We maintain the approach for the final determination. Excluding the uplift applied in the draft determination and excluding the Havant Thicket control, we consider it is necessary to advance revenue to improve financeability of the notional structure and we apply a smaller increase to PAYG rates.	
SES Water	In the draft determination, we increased PAYG rates by an average of 0.50% across all years and all controls. For the final determination, we apply a bigger increase to SES Water's PAYG rates of 0.80% for all years for all wholesale controls.	We concluded in our financeability assessment in the draft determination that an adjustment to PAYG rates was necessary to ensure financeability of the notional structure. For the final determination, excluding the uplift applied in the draft determination, we consider it is necessary to advance revenue to improve financeability of the notional structure. We apply a larger increase to PAYG rates to bring forward further revenue within the period to improve financeability of the notional structure at the allowed return on capital.	£2 million
South East Water	In the draft determination we accepted the company's PAYG and RCV run-off rates in the draft determination which included an uplift of 3.40% for financeability of the notional capital structure.	For the draft determination we accepted the company's proposal that a PAYG adjustment is required to improve financeability of the notional company. Based on our assessment of financial ratios, we maintained the proposed uplift to PAYG rates. In its representations, South East Water sets out a requirement for a further increase to PAYG rates of 1.4%.	£42 million

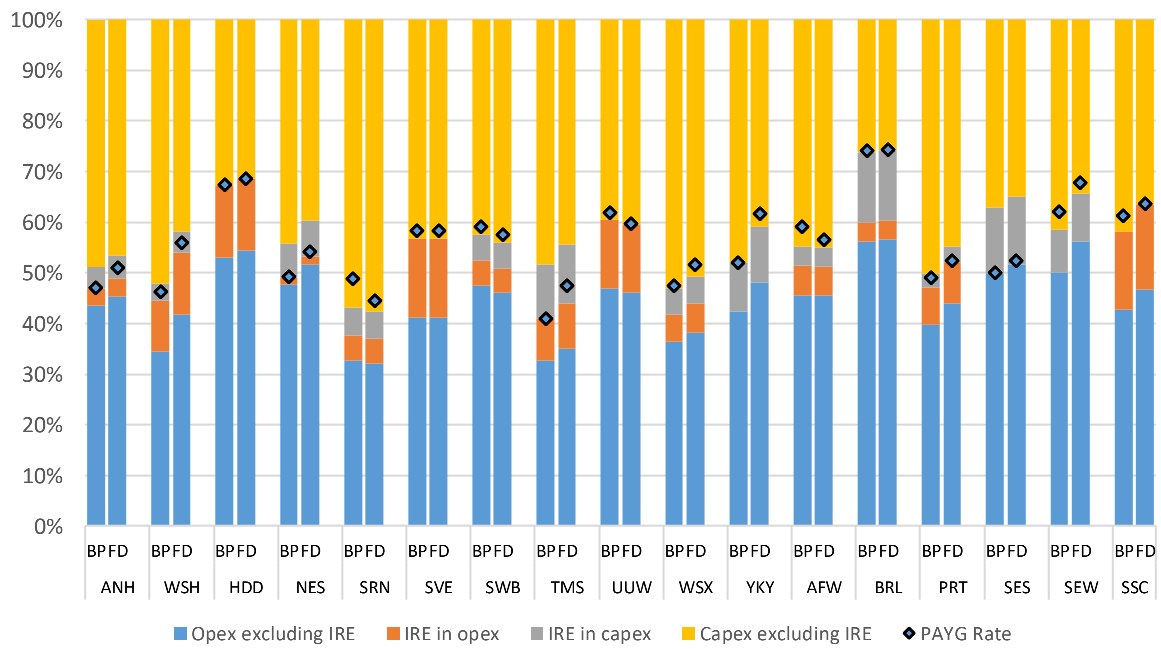
Water company	Change from draft determination	Rationale	Revenue advanced in 2020-25 in final determination £ million
	For the final determination we reduce the uplift to PAYG rates from 3.40% to 1.96% which we apply to all years for all wholesale controls. We also increase RCV run-off rates for RCV inflated by RPI by 0.75%.	We accept the requirement for revenue advancement for the final determination. Our initial assessment of financeability excluding the uplift to PAYG rates applied in the draft determination suggests it is necessary to advance revenue to improve financeability of the notional structure. For the final determination we bring forward revenue through RCV run-off and PAYG rates. South East Water has the lowest RCV run-off rates in the sector and the company sets out that it may review the method of setting RCV run-off in future price reviews. Therefore we consider it is appropriate to apply part of the adjustment to RCV run-off rates. This aligns more closely with the notional financial ratios targeted by the company in its business plan. On this basis, we reduce the uplift to PAYG rates. Overall we increase the amount of revenue advanced compared to the draft determination to improve financeability of the notional structure at the allowed return on capital.	
South Staffs Water	In the draft determination, we intervened to remove the company's proposed increase to PAYG rates of on average 3.0%. For the final determination, we increase PAYG rates from the draft determination for all years for all wholesale controls by 0.12%.	In the draft determination, we did not accept South Staffs Water's proposal to increase PAYG rates by 3.0% for financeability on the basis of the notional capital structure. For the final determinations we consider it is necessary to advance revenue to improve financeability of the notional structure at the allowed return on capital.	£1 million

5.4.1 Pay as you go (PAYG) rates in our final determinations

Figure 5.5 sets out the average PAYG rates as a proportion of totex calculated across the wholesale price controls, comparing company business plans (left hand side) with our final determinations (right hand side).

Absolute average PAYG rates vary between companies according to the investment programme set out by each company in its business plan. Differences between business plans and final determinations reflect differences in total totex and the composition of totex in our final determination (including our revised approach to allocating totex to opex and capex for calculation of PAYG), along with our interventions as set out in the previous section. For example, the PAYG rate could increase in our determination if our assessment of totex excludes investment schemes that were added to the RCV in the business plan.

Figure 5.5: Average PAYG rates in the period 2020-25 across the wholesale controls as a proportion of totex (company business plans vs final determination) (%)



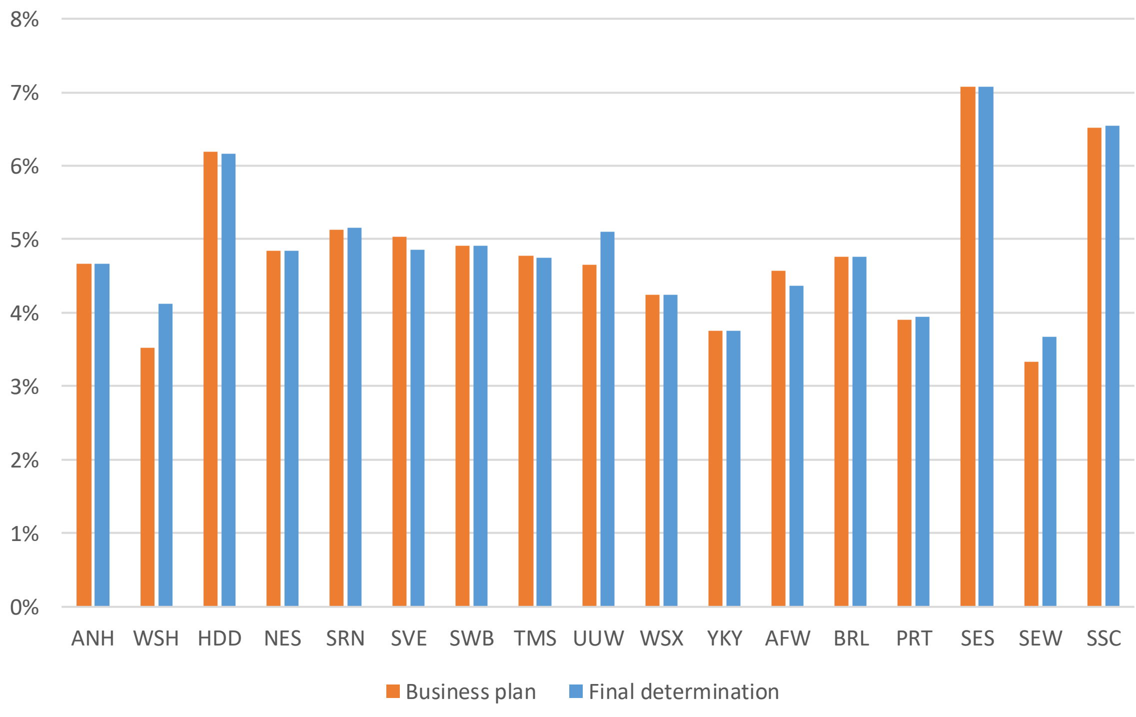
Source: Business plan tables WS1, Wr4, Wn4, WWS1, WWn6, Bio5, Dmmy1, Dmmy 8 for company plans and PAYG models for final determinations. Infrastructure renewal expenditure (IRE) for our draft and final determinations is calculated as IRE in company plans divided by opex in company plans times opex in draft and final determinations. Average PAYG rates are calculated as total PAYG totex as a proportion of total totex in 2017-18 prices across all wholesale controls. Thames Water excludes Thames Tideway control.

PAYG for all companies covers operating costs including infrastructure renewal expenditure where this is forecast in operating costs. There are thirteen companies that forecast an element of infrastructure renewal expenditure in capex. Seven of these propose recovering these costs in period through PAYG rates. The remaining six companies propose recovering these costs through the RCV and associated RCV run-off.

5.4.2 RCV run-off rates in our final determinations

We asked companies to set out their approach to setting the starting point for RCV run-off rates (before applying any adjustment, for example to smooth bills or address a financeability constraint on the notional capital structure). In their September business plans, most companies set out their approach to setting RCV run-off rates with reference to the current cost depreciation or the average asset lives of the assets underpinning the regulatory capital value of the company. Figure 5.6 sets out the average RCV run-off rates as a proportion of regulatory capital value for each company, comparing average RCV run-off rates from revised business plans (left hand side) with our final determinations (right hand side).

Figure 5.6: Average RCV run-off rates as a proportion of regulatory capital value (company business plans versus final determinations) (%)

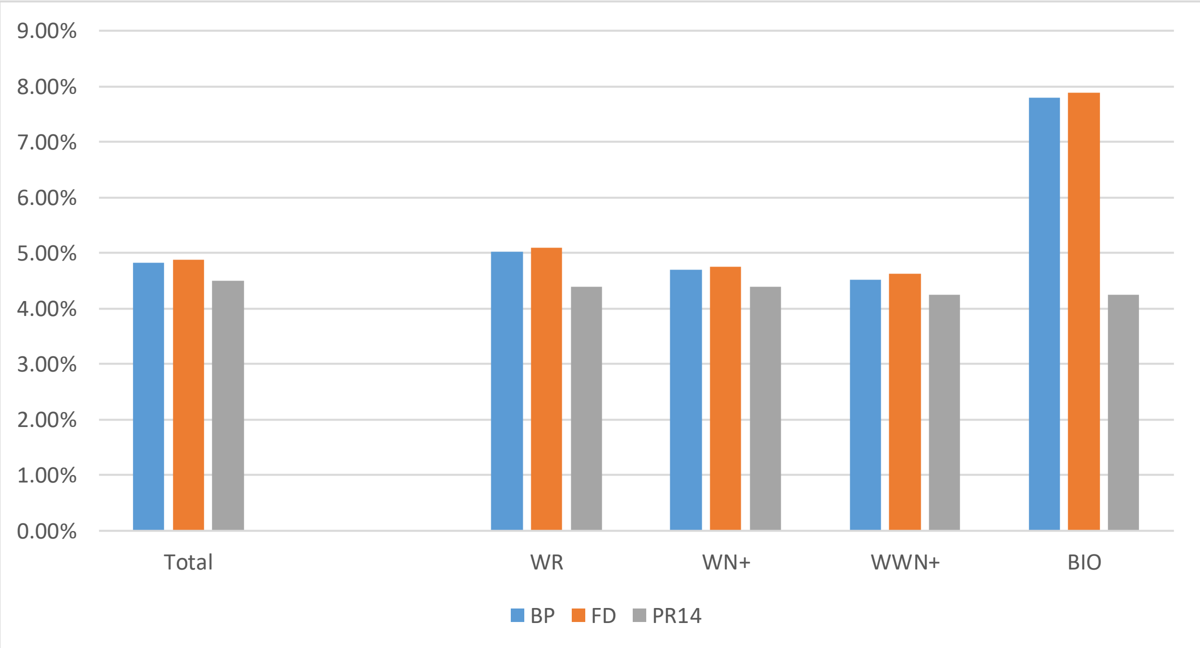


Source: Business plan tables WS1, Wr4, Wn4, WWS1, WWn6, Bio5, Dmmy1, Dmmy 8 for company business plans and financial models for final determinations. Calculated as total run-off as a proportion of total regulatory capital values in 2017-18 prices across all wholesale controls as per business plan table App8. Thames Water excluded the Thames Tideway control.

Figure 5.7 shows average RCV run-off rates for final determinations for the sector by wholesale control compared to revised business plans and to average RCV run-off rates at PR14. Average RCV run-off rates for the bioresources controls are significantly higher than other wholesale controls. In their plans, a number of companies set out that, unlike the other controls, bioresources does not have a significant proportion of infrastructure assets and therefore has a significantly shorter average asset life.

Generally, RCV run-off rates are slightly higher than at PR14, primarily due to two reasons. Firstly, the use of CPIH to inflate part of the RCV means that a higher run-off rate is required to achieve comparable current cost depreciation values on a nominal basis; and, secondly, companies argue that recent capital investment and forecast post-2020 investment tends to be in shorter life assets resulting in a shorter replacement cycle with higher RCV run-off rates. The significant investment at PR19 increases the proportion of new assets in the RCV and even with higher RCV run-off rates, RCV grows materially for many companies as set out in table 6.4 in section 6.

Figure 5.7: Average RCV run-off rates for each wholesale control (%)



Source: Simple average of all companies' proposed RCV run-off rates for the combined water and wastewater controls and for each individual wholesale control as per business plan tables Wr4, Wn4, WWn6, Bio5 and Dmmy 8. Water resources and water network plus are compared to the water control at PR14 and the wastewater network plus and the bioresources control are compared the wastewater control at PR14.

6 Financeability

Key messages for our final determinations:

- We retain our overall approach to the assessment of financeability. We carry it out in our financial model and on the basis of the notional capital structure on which we calculate our allowed return on capital. We assume each company is able to achieve the benchmarks in our determinations.
- Our financeability assessment is based on a notional dividend yield of 3.0%. Where companies must finance material expansion of the asset base (where RCV growth exceeds 10% in real terms), we assume this to be part funded by equity through a reduced dividend yield.
- Consistent with the PR19 methodology, we advance revenue from future customers where a financeability constraint arises. Our final determinations advance revenue for 12 companies.
- In their original and revised business plans, all companies provided Board assurance that their business plans are financeable on an actual and notional basis. Companies subsequently raised concerns about the financeability of our draft determinations. Our assessment of financeability on the basis of the notional capital structure for the final determination is made in the context of changes made in our final determination. We consider the final determinations for all companies are financeable on the basis of the notional capital structure taking account of the allowed costs, cost recovery and allowed returns in our determinations.
- We make amendments to the calculation of the adjusted interest cover ratio we use in our financeability assessment to take account of representations in relation to pension deficit recovery costs and the recovery of capitalised infrastructure renewal expenditure.
- We assess the financial ratios in our final determinations in the round meet the target thresholds consistent with a credit rating two notches above the minimum investment grade, which was the target rating for the notional company proposed by all water companies..
- We consider therefore, that companies, if efficient, will be able to meet their obligations and commitments to customers set out in final determinations and continue to be able to access required finance on reasonable terms.

We must set our determinations in the manner which satisfy our duties, which include protecting consumers, securing water company functions are properly carried out, securing that companies are able to finance the proper carrying out of those functions, and furthering the resilience objective.

We interpret our financing duty as a duty to secure that an efficient company can finance its functions, in particular by securing reasonable returns on its capital. In doing so, it will be able to raise finance on reasonable terms while protecting the interests of current and future customers.

We use the financeability assessment as a last check that, when all the individual components of our determination are taken together (including totex, allowed return and retail margin, PAYG and RCV run-off levers), an efficient company can generate cash flows sufficient to meet its financing needs.

Our PR19 methodology required companies to submit financeable business plans, accompanied by Board assurance that the plan is financeable on both the notional and actual capital structure. The methodology also required companies to provide an explanation of their target credit rating supported with evidence of the financial metrics on both a notional and an actual basis. We use this information to inform both our assessment of company business plans and also to inform our financeability assessment.

We use the financial projections from our financial model that is used to set revenue allowances in the final determination as the basis for our financeability assessment. We carry out the assessment before reconciliation adjustments for past performance to ensure we do not erode the value of our incentive mechanisms. We consider whether the allowed revenues, relative to efficient costs, are sufficient for an efficient company to finance its investment on reasonable terms and to deliver its activities in the long term, while protecting the interests of existing and future customers.

In carrying out our financeability assessment, we assume that an efficient company is able to deliver a level of performance that is consistent with our efficient cost allowances and assume there is no out/underperformance with respect to the levels of service provided to customers.

We carry out our financeability assessment on the basis of a notional capital structure that uses the mix of debt and equity in the calculation of our allowed return on capital. Companies are able to determine the appropriate actual capital structure for their own circumstances, and it is companies and their investors rather than customers that should bear the risk of a company’s choice of its actual capital structure to the extent that it departs from the notional capital structure.

6.1 What we said in our draft determinations

In our draft determinations, we assessed financeability by reference to the notional capital structure used to determine the mix of the allowed return on equity and the allowed return on debt in our calculation of the allowed return on capital. Consistent with the PR19 methodology we assumed: (i) an opening capital structure that is financed 60 per cent by debt and 40 per cent by equity; and (ii) an opening proportion of RPI linked debt of 33 per cent with no new index-linked debt issued during the period.

In our draft determinations for the slow track and significant scrutiny companies, we applied a base dividend yield of 3.15 per cent and dividend growth of 1.32 per cent. For the fast track draft determinations, our financeability assessment was based on the dividend yields included in fast track business plans, though we signalled that we would consider our approach again in the final determinations to align it with the assumption for all companies.

Consistent with the PR19 methodology, we carried out our financeability assessment before making reconciliation adjustments for past performance adjustments so as not to erode the value of our incentive mechanisms. However, in our draft determinations for Anglian Water and Severn Trent Water, we accepted proposals to take account of revenues from reconciliation adjustments because these companies provide convincing evidence it is in the best interest of customers to do so.

Our draft determinations included a number of adjustments to company plans related to our decisions on the financeability of companies on a notional basis:

- we increased PAYG rates to advance revenue for Dŵr Cymru, Thames Water and SES Water;
- we reduced the scope of advanced revenue for Affinity Water and Portsmouth Water, and removed an adjustment proposed by South Staffs Water as we did not consider the requested adjustments were necessary for the purposes of financeability of the notional capital structure;
- we advanced revenue through the use of PAYG for South East Water, accepting the company's proposal as set out in its April business plan;
- we restricted notional dividends for Affinity Water as we considered equity should contribute to its material RCV growth; and
- we assumed the equity injection to the notional company structure proposed by Portsmouth Water.

We also applied sensitivities to the notional dividend yield assumptions for Southern Water, Thames Water and Wessex Water in our financeability assessment given the high levels of RCV growth.

In our fast track determinations, we accepted Severn Trent Water's proposal to adjust RCV run-off to give effect to a faster transition to CPIH and a further advancement to RCV run-off. We also accepted United Utilities' proposal to advance revenue through an increase to PAYG rates to address a financeability constraint on a notional basis.

6.2 Stakeholders' representations

Challenges that our draft determinations did not fulfil our duties

Representations on the issue of financeability are linked to the overall level of stretch in our draft determinations, taking account of our interventions to costs, outcome delivery incentives and the allowed return on capital. Some respondents challenged that our interventions in the round were inconsistent with our financing functions duty. Some respondents challenged that the allowed return on capital is inconsistent with a credit rating that is comfortably within the investment grade band. And some set out that our policy of advancing revenue from future customers was inconsistent with the approaches adopted by the credit rating agencies.

In their representations, six companies state that we were not fulfilling our financing duty in our draft determinations:

- Anglian Water, Northumbrian Water and Yorkshire Water raise concerns that Ofwat is not meeting its financing duty in relation to setting an achievable efficiency challenge for the notional firm.
- South East Water and Thames Water state the approach used to set the overall efficiency challenge was inconsistent with our financing duty. Thames Water states it believes the financing duty requires 'Ofwat to assess and secure a PR19 price control package of measures that allows Thames Water to finance its statutory functions – both on a notional basis, but also on an actual, real-world basis, that takes into account the impact of the draft determination and likely availability of equity in the context of both the draft determination and exogenous factors.'
- Portsmouth Water states that it does not consider the application of our duty in relation to the proposed lower allowed return for the separate Havant Thicket control is fair.

Thames Water sets out that, given the level of the productivity shift, it would be unreasonable to expect that an efficient company could deliver its draft determination. Thames Water considers an efficient company with a notional capital structure would not be able to earn its cost of capital, would not be financeable on a notional basis and would not be able to finance the delivery of its statutory obligations to provide water and wastewater services to customers now, or to protect the interest of future customers by maintaining long-term resilience. It also considers the net returns in its draft determination are insufficient for the notional company to attract equity. It also raised concerns about equity funding in the event of nationalisation of the sector.

Challenges that our draft determinations did not include adequate assessment of stress tests

Thames Water and Affinity Water suggest we should undertake an analysis of downside scenarios or 'stress testing' for the assessment of financeability or financial resilience. In Thames Water's view this is relevant to an assessment of whether Ofwat has satisfied both its financing duty and its resilience duty.

South Staffs Water also sets out in its representations the financeability assessment should take account of in-period outcome delivery incentive penalties due to its assessment of a significant skew towards a penalty position for an efficient company.

Challenges about the target credit rating in our determinations

A number of company representations maintain that two notches headroom (above sub-investment grade) is an appropriate credit rating for a company with a notional capital structure to enable it to raise debt efficiently and to remain financially resilient.

However, a number of companies (Affinity Water, Portsmouth Water, Southern Water, South Staffs Water, United Utilities and Wessex Water) set out that the allowed return used in our determinations would not allow a company with a notional capital structure to achieve a credit rating with two notches headroom for one or more of the credit rating agencies.

In addition, five companies (Anglian Water, Northumbrian Water, Severn Trent Water, Hafren Dyfrdwy, and South East Water) suggest the index used for the cost of new debt in setting the allowed return on capital was inconsistent with the credit rating targeted in our draft determinations.

Challenges about the use of financial levers to advance revenue in our determinations

Anglian Water updated and republished a presentation exploring the relationship between the allowed return on equity and financeability on the basis of the notional capital structure which sets out that the updated view of the cost of capital applied in the draft determination results in notional financial ratios that are consistent with the requirements for a Baa2 credit rating.

Some respondents (Anglian Water, Northumbrian Water and Southern Water, and United Utilities) set out that the use of regulatory levers such as PAYG and RCV run-off rates to address a financeability constraint is not appropriate, as these adjusted cash flows are not taken into account by certain credit rating agencies in their assessment. Other companies, such as South East Water, United Utilities and Portsmouth Water note that advancing revenue does not improve adjusted interest cover ratios used by certain rating agencies in their credit assessment, although these companies accept revenue advancement in the draft determination or request this in representations to address other financial ratios.

Bristol Water considers the use of financial levers is a sensible approach to support minimum financial ratios for the notional capital structure. Thames Water removes the PAYG uplift applied in the draft determination from the revised plan submitted with its representations as it incorporates a higher return on capital. However, the company agrees that in some circumstances it may be appropriate to adjust the underlying PAYG rate; for example, where notional financial ratios are constrained. Thames Water agrees that increasing the short-term cashflow is beneficial, to some extent, to some financial metrics and where financial ratios are below appropriate metrics then it recommends that Ofwat continue to use the PAYG rate to improve cashflows during the period.

Representations on the financial ratios used in our financeability assessment

A number of companies including Anglian Water, Northumbrian Water and Southern Water state that Ofwat should use the specific definitions of financial ratios used by the credit rating agencies ratios to assess financeability.

In addition, a number of company representations set out a number of issues specific to the circumstances of the company involved:

- A number of affected companies (Anglian Water, Northumbrian Water, South East Water, South Staffs Water, Southern Water and Wessex Water) make representations about the treatment of pension deficit recovery payments in the calculation of our financial ratios. Companies set out that excluding the costs but including the revenue inflates interest coverage metrics.
- Northumbrian Water set out that different treatment of infrastructure renewal expenditure by companies may result in companies’ financeability being assessed on different bases. Bristol Water make a similar representation that

Ofwat should focus on the alternative measure for adjusted interest cover in considering the financeability of the company.
- South Staffs Water and Portsmouth Water raised concerns about adjustments that were not accepted as part of the reconciliation adjustment for the wholesale revenue forecasting incentive, relating to developer services activities.

Representations on the notional dividend yield used in our financeability assessment

Some respondents commented on the issue of the notional dividend policy we assumed for the purposes of the financeability assessment:

- Anglian Water suggests it does not consider it appropriate to withhold all dividends for the notional company, however its representation lowered its dividend yield for the notional company to 60% of the cost of equity from 70% in its September 2018 business plan.
- South West Water sets out that dividends should be consistent with the returns within allowed revenue to ensure notional gearing levels are more aligned with the PR19 methodology. Effectively, the company sets out that a higher dividend yield can be assumed where notional gearing is projected to fall below the 60% level.
- In its representation plan, Thames Water shows financeability on the basis of the notional capital structure could be maintained by reducing the notional dividend yield to 2% (though we note the representation was underpinned by a higher proposed return).
- In its representations on the slow track determinations, United Utilities suggests that we should reflect in its notional dividend assumptions the allowed cost of equity from the current and previous price reviews. United Utilities sets out that dividend assumptions calculated as base plus growth (equating to the cost of equity) only functions correctly if the policy is applied with the assumed cost of equity into perpetuity, not within the five years of a single price review period. The company considers resetting the policy every five years in a period where equity returns are decreasing means that price limits are never actually set in a way that is consistent with a dividend distribution at the cost of equity. United Utilities considers a low dividend yield boosts the perceived financeability of the notional company and can conceal an underlying stretched financeability position.

Representations on the relative risk of small companies

Affinity Water and Portsmouth Water make representations that higher credit metrics are required for small companies on the basis that higher operational gearing means that more headroom is required to absorb cost shocks to maintain financial resilience. Affinity Water proposed higher target levels for the financial ratios in its representation.

6.3 Our assessment and reasons

In this section we provide our assessment of the issues raised in representations. We present a summary of our assessment in Appendix 1. In section 6.4 we comment in further detail on the issues that are specific to individual company representations.

Challenges in representations that our draft determinations did not fulfil our duties

For our final determinations we retain our overall approach to the assessment of financeability that was set out in the PR19 methodology. That is, for it to be carried out using our financial model and on the basis of the notional capital structure on which our allowed return on capital is calculated. We assume each company achieves a level of performance consistent with our efficient cost allowances with no out/underpeformance with respect to the levels of service provided to customers.

We carry out our assessment of financeability on the basis of the notional capital structure as we consider it is investors, rather than customers that should bear the risk of a company's choice on its actual capital structure. This is because investors are better placed to manage these risks than customers. This position is long-standing; it is consistent with the approach we and other regulators have adopted in previous determinations and in previous appeals that have been made to the Competition and Markets Authority and Competition Commission.

We have carefully considered the issues raised in these representations regarding the overall balance of risk and return. We set out our assessment of the risk ranges in section 3 and we set out our assessment of the overall level of stretch in our determinations in the 'Overall stretch across costs, outcomes and allowed return on capital appendix' and summarise below.

Our final determinations reflect revisions to our allowed costs. The costs we allow are sufficient for efficient companies to deliver their obligations and commitments to customers. We make some adjustments to the incentive package for cost items that are more uncertain; we adopt bespoke cost sharing rates for business rates and Environment Agency abstraction charges, and include a limited number of bespoke mechanisms that allow price limits to be reopened in limited circumstances for some companies.

We have made revisions to outcome delivery incentives including changes to rates and placing caps and collars on potentially financially significant performance commitments. Furthermore, to mitigate extreme cashflow and bill volatility, our final determinations offer companies the option, where outcome delivery incentive adjustments exceed ±1% of notional equity, to ask us to defer the excess to a subsequent year. We will consider such a request in light of the company's expected performance and our statutory duties in the round.

Our final determination includes a revised approach to the allocation of allowed costs between those recovered in 2020-25 and those allocated to the RCV. This approach better reflects our cost challenge. We also place more weight on companies' views of cost and revenues for developer services using company-specific unit rates. These revisions are designed to align the interests of companies and investors with those of customers while retaining stretching incentives for companies in 2020-25.

The allowed return on capital has reduced compared with the draft determinations, reflecting lower expected market returns; we do not consider this alters the overall level of stretch for the notional company.

In carrying out our financeability assessment, we assume that an efficient company is able to deliver a level of performance that is consistent with our efficient cost allowances and that there is no out/underperformance with respect to the levels of service provided to customers. Our approach protects the interests of customers as it ensures companies and their investors bear the consequences of inefficiency and underperformance in delivery of their obligations and commitments to customers. This approach is consistent with the approach we and other regulators have taken in previous reviews and consistent with our duties.

Companies must be able to finance the required enhancements to their asset base and replace existing debt as it matures. It is important companies are able to access finance on reasonable terms if they are to meet their obligations and commitments to customers. Both debt and equity investors have a role to play in financing investment that supports the growth of the asset base and we consider it is reasonable that equity investors should have a role to play in financing material RCV growth either through retained earnings or through additional equity investment.

We observe no evidence that efficient companies cannot raise equity in the current economic conditions. We evidence in the 'Allowed return on capital technical appendix' that equity analysts assess that the listed companies continue to trade at a premium to the value of their asset base, suggesting continued demand for investment despite expectations of lower allowed returns. We have seen recent examples where companies have increased equity to support financial resilience at the level of the Appointed business, including South East Water, SES Water, Southern Water and Hafren Dyfrdwy. Furthermore, a number of other companies propose to take steps to increase equity in the appointed business in 2020-25, including Affinity Water and Portsmouth Water.

We understand that the period during which we develop our determinations can introduce some uncertainty to investors, which may influence their willingness to strengthen company balance sheets, particularly where this is for a poorly performing company. This uncertainty is removed with the publication of our determinations. Companies and their investors are responsible for maintaining long term financial resilience. This view is shared by the Competition Commission in previous appeals. For example, in 2012, the Competition Commission[26] said "if shareholders were able to withdraw large sums in periods with strong cash flow, it was reasonable they should also be willing to supply finance in periods of weaker cash flow".

Challenges in representations that our draft determinations did not include adequate assessment of stress tests

Our PR19 methodology required companies to submit financeable business plans, accompanied with Board assurance that the plan is financeable on both the notional and actual capital structure. We required companies to demonstrate a clear understanding of risk, to provide clear evidence of risk management measures in place and to quantify their assessment by measuring the impact of upside and downside against the return on regulatory equity (see section 3).

However, recognising that we have an additional duty, introduced by the Water Act 2014, to further the resilience objective, and that the Board of each company is responsible for ensuring the company is resilient, the PR19 methodology highlighted the importance of financial resilience assessments in business plans. Our expectations were further clarified in our 'Putting the sector in balance position statement'.

Through the PR19 process, we have assessed the evidence companies have provided on the financial resilience of their actual financial structures. We have challenged companies to be more transparent about the information provided on their actual financial structures. As set out in section 7, where appropriate, we continue to challenge companies to take appropriate steps to maintain financial

[26] Competition Commission, 2014, Northern Ireland Electricity Limited price determination – A reference under Article 15 of the Electricity (Northern Ireland) Order 1992

resilience as it is companies and their investors who are responsible for ensuring the financial structures they adopt allow them to secure long term resilience.

Our determinations should provide sufficient headroom for an efficient company with the notional capital structure to be sure it can pay its cash interest costs. For the final determinations we have applied stress tests to the funds from operations measure in our financial model. In these stress tests we target retaining at least an average adjusted interest cover ratio of 1 times in 2020-25. This represents the point at which a company can pay its ongoing expenses, maintain its regulatory capital and just service its cash interest costs. We set out our assessment in section 6.4.

Challenges in representations about the target credit rating in our determinations

The concerns raised in representations are primarily that our allowed return is inconsistent with a credit rating that is two notches above the minimum of investment grade, but also relate to a perception that we require companies to maintain two notches of headroom. We address these issues in turn.

A credit rating is an evaluation of the credit risk of a company, or the risk of a company being unable to repay debt and/or defaulting. Typically, each company will maintain a credit rating with one or more of Fitch Ratings, Inc. (Fitch), Moody's Investors Service Inc. (Moody's) and S&P Global Ratings (S&P). Credit ratings provide a measure of credit risk of a company, which in turn can influence the cost of new debt raised by a company and its ability to raise finance.

Our PR19 methodology set out that companies should provide evidence of the credit rating they target in their plan and the level of each financial ratio considered appropriate to meet that target credit rating. We set out that companies should propose, as part of their business plans, the appropriate target credit rating for both the notional and actual structures. The class of rating selected may depend on the investment and funding needs of a company, as well as the need to maintain financial resilience in the 2020-25 price control period and the longer term. We set out the credit ratings companies stated as a target for their notional and actual structures in table 6.1. We comment on the actual company structures in Section 7.

Table 6.1: Credit ratings targeted by companies in their business plans

	Target credit rating for the notional capital structure			Target credit rating for the actual financial structure		
Water company	Fitch	Moody's	Standard and Poor's	Fitch	Moody's	Standard and Poor's
Anglian Water	-	Baa1	-	-	Baa1	-
Dŵr Cymru	BBB+	Baa1	BBB+	BBB+	Baa1	BBB+
Hafren Dyfrdwy*	-	Baa1	BBB+	-	Baa1	BBB+
Northumbrian Water	-	Baa1	BBB+	-	Baa1	BBB+
Southern Water	-	Baa1	BBB+	-	Baa1	A-
Severn Trent Water	-	Baa1	BBB+	-	Baa1	BBB+
South West Water*	-	-	Boundary of A/BBB+	N/A	N/A	N/A
Thames Water	-	Baa1	BBB+	-	Baa1	BBB+
Wessex Water	BBB+	Baa1	-	BBB+	Baa1	-
United Utilities	-	Baa1	BBB+	-	A3	BBB+
Yorkshire Water	-	Baa1	-	-	Baa2	-
Affinity Water	-	Baa1	-	-	Baa1	-
Bristol Water	-	Baa1	-	-	Baa2	-
Portsmouth Water	-	Baa1	-	-	Baa2	-
SES Water	-	Baa1	-	-	Baa1	-
South East Water	-	Baa1	A-	-	Baa2	BBB
South Staffs Water	-	Baa1	-	-	Baa1	-

Source: Revised business plan tables (App10), draft determinations representations.
Note: *The licenses of South West Water and Hafren Dyfrdwy contain a provision that allows Ofwat to agree an exemption to the requirement to maintain or to use reasonable endeavors to maintain an investment grade credit rating. Ofwat has currently agreed to the exemption and in place, there is a requirement for their Board to certify on an annual basis that in the Board's opinion, they "would be able to maintain an issuer credit rating which is an investment grade rating", together with a statement of the main factors which the Board has taken into account.

On the basis of the **notional capital structure**, in their business plans, many companies place more emphasis on a particular credit rating agency and/or specific financial ratios favoured by that rating agency. We take account of the key financial metrics targeted by each company and therefore may place more emphasis on the level of the adjusted interest cover ratio or funds from operations to net debt in our assessment of financeability of the notional capital structure for that company. We note that all companies, in their April business plans, stated a target credit rating that was a minimum two notches above the minimum of investment grade (BBB+/Baa1/BBB+ Fitch, Moody's, Standard and Poor's). We do not specify an appropriate credit rating for the notional capital structure. However, taking account of companies' targets, we use two notches above the minimum investment grade as the basis for our assessment of financeability.

On their **actual structure**, most companies target BBB+/Baa1/BBB+ (Fitch, Moody's, Standard and Poor's), in most cases being consistent with current or expected credit ratings. Four companies target credit ratings one notch lower, at Baa2 (Moody's) and/or BBB (Standard and Poor's). This rating provides just one notch of headroom to the minimum investment grade rating of BBB-/Baa3/BBB- (Fitch, Moody's, Standard and Poor's). These targets are primarily driven by companies' actual financing arrangements.

We do note, however, that the target credit rating stated by Southern Water is above the level of its current credit rating. The company's credit rating was downgraded following our announcement in June 2019 of a financial penalty following an investigation into its wastewater treatment works operations[27]. The company is currently taking steps to mitigate the financial impacts of the penalty to improve its financial resilience.

Under the conditions of their licences, companies have a requirement to maintain or to use reasonable endeavours to maintain an investment grade credit rating (i.e. BBB-/Baa3/BBB- (Fitch/Moody's/S&P) or higher)[28]. However, we also consider that an appropriate credit rating target should include sufficient headroom (i.e. be higher than BBB-/Baa3/BBB-) to protect against falling to a sub-investment grade credit rating following a deterioration in credit risk or potential cost shocks.

We do not set a minimum credit rating that companies should target; it is a company's responsibility to set a target that is appropriate to its investment needs and the risks that it faces in order to maintain financial resilience. However, through the PR19 process, where a company targets a lower target credit rating, we have set a higher evidential bar for the company to show that the target credit rating is appropriate to fund required investment and to maintain financial resilience.

[27] Ofwat 2019, 'Ofwat's final decision to impose a financial penalty on Southern Water Services Limited'

[28] The licences of South West Water and Hafren Dyfrdwy contain a provision that allows Ofwat to agree an exemption from this requirement. Ofwat has currently agreed to the exemption and in place, there is a requirement for their Board to certify on an annual basis that in the Board's opinion, they "would be able to maintain an issuer credit rating which is an investment grade rating", together with a statement of the main factors which the Board has taken into account.

In our financeability assessment, we have considered the level of financial ratios in our financial modelling of the notional capital structure against the levels proposed by companies in their business plans. As set out in table 6.1, companies have confirmed the levels to be consistent with a credit rating two notches above the minimum of investment grade.

As set out in section 6.2, some representations set out their view that the benchmark index we use for the cost of new debt is inconsistent with the credit rating targeted by companies for the notional structure. We consider this issue in the 'Allowed return on capital technical appendix'.

Financeability challenges inherent in PR19

A number of representations raised concerns that the cost of capital is set too low on the basis that it does not support financial metrics consistent with their target credit rating for the notional company. Representations reference 'guidance' provided by credit rating agencies regarding the adjusted interest cover financial ratio, that our allowed return should achieve a level of 1.5x.

A feature of the privatised utility sectors is that customers pay, and investors earn, a real return on an inflating asset base – the inflationary element of the return is earned through indexation of the RCV; the real element of the return is earned directly from the revenue allowance. The approach is based on the assumption that assets are maintained over the long term, such that each generation of customers pays their fair share for the use of an asset base that is expected to be maintained in perpetuity.

While companies can issue debt instruments that allow debt costs to match the real revenue profile, we assume a balanced debt portfolio includes both nominal (fixed rate) debt and index-linked debt. As the real allowed cost of debt is lower than the equivalent nominal cost of debt, for a company whose RCV growth is financed mainly by debt, a mismatch can arise in allowed cash flows because the real return is insufficient to cover nominal interest costs. These issues were explored by Ofwat and Ofgem in Financing Networks[29], where it was illustrated that this mismatch can unwind once a company is in 'steady state' with the use of retained earnings, that is, for a company without expansionary growth of the RCV.

The financeability challenge is particularly acute at PR19 because the return related to the RPI linked part of the RCV is low in real terms as illustrated in the upper most section of Table 6.2.

[29] Ofwat and Ofgem, 2006, Financing Networks: A discussion paper

The table illustrates that the ratio of cash return to inflationary return for the RPI linked part of the RCV, at 39% is materially lower than at any previous determination. This introduces particular challenges to the financeability assessment. The table illustrates that the ratio of the cash return to the inflationary return for the CPIH linked part of the RCV is higher than the ratio at PR14, but remains below the PR09 level.

Anglian Water published a report[30] exploring the relationship between the allowed return on equity and financeability on the basis of the notional capital structure. The report sets out that the allowed return on capital applied in the draft determination results in financial ratios that are consistent with the requirements for a Baa2 credit rating. The report includes a table demonstrating the relationship between the cost of capital and the adjusted interest cover financial ratio.

In lower section of table 6.2, we adopt the same approach used by Anglian Water to illustrate the impact of the allowed return on capital on the indicative adjusted interest cover ratio. The calculations illustrate the challenge brought about by the allocation of the real and nominal returns to the RPI inflated part of the RCV. The adjusted interest cover ratio for the RPI linked return is very weak, but materially better for the CPIH linked return.

For PR19, the transition to inflate part of the RCV by CPIH mitigates the financeability challenge to some extent. The table illustrates that assuming the average transition to CPIH of 63.6% by the end of the period, the real return on a blended RPI/CPIH basis results in an implied adjusted interest cover ratio for PR19 consistent with PR14, though this will vary between companies depending on the relative proportions of RCV that are inflated by RPI and CPIH.

[30] Also published on the WaterUK Marketplace for ideas 'PR19 – Notional Company Financeability'

Table 6.2: Ratio of cash to inflationary returns and indicative adjusted interest cover ratio at successive price reviews

		PR09 RPI	PR14 RPI	PR19 RPI	PR19 CPIH	PR19 blended
Allowed return on debt	A	3.60%	2.59%	1.15%	2.14%	1.71%
Allowed return on equity	B	7.10%	5.65%	3.18%	4.19%	3.75%
Gearing	C	57.5%	62.5%	60.0%	60.0%	60.0%
Allowed return	D = A x C + B x (1 - C)	5.09%	3.74%	1.96%	2.96%	2.53%
Inflation	E	2.50%	2.80%	3.00%	2.00%	2.43%
Total nominal allowed return	F = ((1 + D) x (1 + E)) - 1	7.71%	6.64%	5.02%	5.02%	5.02%
Real return on capital (as % nominal return)	**G = D / F**	**65.9%**	**56.3%**	**39.1%**	**59.0%**	**50.4%**
RCV	H	100	100	100	100	100
Proportion index linked debt	I	30%	33%	33%	33%	33%
Fixed rate debt (£m)	J = H x C x (1 - I)	40.3	41.9	40.2	40.2	40.2
Index linked debt (£m)	K = H x C x I	17.3	20.6	19.8	19.8	19.8
Interest rate on fixed rate debt	L = ((1 + A) x (1 + E)) - 1	6.19%	5.46%	4.18%	4.18%	4.19%
Interest rate on index linked debt	M = A (RPI)	3.60%	2.59%	1.15%	1.15%	1.15%
Interest on fixed rate debt	N = L x J	2.49	2.29	1.68	1.68	1.68
Interest on index linked debt	O = M x K	0.62	0.53	0.23	0.23	0.23
Return £m	P = D x H	5.09	3.74	1.96	2.96	2.53
Interest £m	Q = N + O	3.11	2.82	1.91	1.91	1.91
Adjusted interest cover ratio	**R = P / Q**	**1.63**	**1.32**	**1.03**	**1.55**	**1.32**

Note: All data taken from relevant determination. Interest cost for index linked debt is in RPI terms in all columns. The PR19 blended return on capital reflects a mix of 56.8% CPIH and 43.2% RPI, being the average transition over 2020-25 (opening proportion of 50% CPIH and closing proportion of 63.6% CPIH)

The financeability issue is also strained at PR19 because of a mismatch in the calculation of the allowed return on equity and the allowed return on debt. The allowed return on equity is calculated by reference to market data on expected equity returns in 2020-25 that are expected to be low compared with allowed returns since privatisation. But, in recognition that debt finance in this sector is raised over the long term, the return on embedded debt is calculated on a 15 year trailing average of the benchmark index that includes debt financed at rates that pre-date the credit crunch. One option which would mitigate this, advocated by Citizens Advice[31], is to use a shorter trail of debt costs for calculating our allowance for embedded debt costs in the notional capital structure. However, we are concerned that this approach might not reflect the importance of long term financing of the sector and encourage companies to finance on a shorter term basis. This could be detrimental to the interests of customers and maintaining access to finance over the long term.

Financial ratios in our financeability assessment could be improved by increasing the assumed proportion of index-linked debt in the notional company. Index-linked debt benefits cashflow financial ratios as the inflationary element of the interest cost accretes to be paid on maturity of the debt; and as index-linked debt has a cash interest charge that reflects a real rather than a nominal coupon it can materially improve cash interest cover ratios.

Consistent with the PR19 methodology, we set the assumption for the opening level of index-linked debt for the notional company at 33 per cent and assume no further index-linked debt is raised through the period. This assumption may be considered conservative as the average proportion of index-linked debt for the sector is materially higher than this.

An increase of opening index-linked debt to 49 per cent (in line with opening debt balances in companies' revised business plans) would increase the adjusted interest cover ratio by approximately 0.2 times. This view was supported by Southern Water who highlight the deterioration of the adjusted interest cover ratio in the period 2020-25 based on the proportion of index-linked debt over time and Thames Water who provided a sensitivity of financial ratios to a higher proportion of index linked debt in its business plan submission.

While we do not adopt the levels of index linked debt used by companies in our financeability assessment, it is clear that parameters such as the assumed level of index-linked debt can have a material impact on the financeability assessment and alternative proportions of index-linked debt could be defensibly used. This is one reason why 'guidance' on levels of the adjusted interest cover ratio should not interpreted as a strict minimum requirement for our financeability assessment.

Challenges about the use of financeability levers to advance revenues in our determinations

[31] Citizens Advice Monopoly Money: How consumers overpaid by billions 2019

In their representations, some respondents suggest that the level of the indicative adjusted interest cover ratio that is calculated by our draft determination is reason, on its own, to increase the allowed return on equity. We do not consider this would sufficiently protect the interests of customers. Our aim in determining the allowed return is to set it at a level such that investors are fairly rewarded for the risk associated with their investment. As we set out in the 'Allowed return on capital technical appendix', our allowed return is consistent with market evidence. If we were to uplift the allowed return to target a specified level for a key financial ratio, we do not consider this would be consistent with the application of all of our duties and it would call into question the legitimacy of our determinations.

As the challenge to financial ratios is driven by the profile of cash returns to shareholders in the short term, compared with the nominal return that is received over the long term, we consider NPV neutral cash flow profiling adjustments more fairly balance customer interests than uplifting the allowed returns to equity. There are different ways in which this can be achieved – including a faster transition to CPIH, or by advancing revenue through PAYG or RCV run-off levers. Applying an increase to the allowed return at a time when cash returns are low would require a reduction in returns below market rates in future periods; otherwise adjustments would be asymmetric and would result in consumers paying more over the economic cycle. This is also likely to undermine regulatory predictability and the transparency of the determination of the allowed return on capital.

Ahead of PR19, we set out in Water 2020[32] our decision to transition price controls from RPI indexation to a more credible measure of inflation. Our decision to adopt a transition reflected concerns raised at the time by companies and their investors about the need for a managed transition and also reflected considerations about the potential impact on customer bills of an immediate switch. These considerations led to the approach in the PR19 methodology that required companies to demonstrate that their chosen speed of transition to CPIH is consistent with customer preferences in business plans.

The proportion of RCV that is inflated by CPIH will vary between companies and will increase over time depending on: (i) the proportion of totex that is added to RCV; and (ii) the depreciation of opening RCV. Companies with high investment and/or high RCV run-off rates will transition faster to CPIH.

But, in addition, the PR19 methodology allows companies to use PAYG and RCV run-off levers to increase cash flow and improve financial ratios in the short term. We consider it may be reasonable for companies to use these levers to crystallise some

[32] Ofwat 2016, Water 2020: our regulatory approach for water and wastewater services in England and Wales

of the inflationary return that would otherwise accrue to the RCV where there is evidence that bill profiles are supported by customers. In our draft determinations we set out that increasing PAYG and RCV run-off rates to address financeability on the basis of notional capital structure constraints could be viewed as having an equivalent effect as a faster transition to CPIH.

Two companies (Severn Trent Water and United Utilities) have used financial levers to replicate the impact of an accelerated transition to CPIH by increasing RCV run-off rates for the RPI inflated RCV. Severn Trent proposed to uplift RCV run-off rates that apply to the RPI indexed part of the RCV by one percentage point to reflect the wedge between RPI and CPIH. United Utilities proposed to accelerate the transition to CPIH in the same manner in its representations to the draft determination. We accept the evidence these companies provide that the resulting bill profiles are supported by customer preferences. The final determinations for these companies provide for the effect of a full transition to CPIH from 1 April 2020 through the use of adjustments to RCV run-off.

We have considered whether it would be appropriate to require a faster transition to CPIH for all companies as part of our decisions for the final determinations. This is in the context that:

- In February 2019, Moody's sets out that it views the adoption of CPIH indexation is credit positive[33]. In its comment on Ofgem's consultation on its approach to setting prices for gas distribution networks in 2021-26 regulatory period, it states "Although this (adoption of CPIH indexation) is a pure "speed of money" adjustment that will reduce future cash flow by an equivalent amount, we regard the change as credit positive as long as companies reduce distributions to maintain a stable path of net debt/RAV." In July 2019 Moody's also says that "The regulator views the adjustment of PAYG and run-off rates as economically equivalent to the change in indexation measures, because they involve a trade-off between fast money (received through revenue through the detriment of RCV growth) and slow money (increased RCV growth with lower short-term revenue). However, we believe that there is a key difference: the switch to CPIH is a permanent change that applies to all companies in a similar way, while PAYG and run-off rates are partly within companies' control and can change between periods, distorting comparability between companies and over time. We will continue to remove the regulatory depreciation as well as excess PAYG to calculate company-specific AICR ratios."[34]

[33] Moody's February 2019 'Credit quality likely to weaken in RIIO-GD2 regulatory period'
[34] Moody's July 2019 'Ofwat tightens the screws further'

- Fitch set out in July 2019 that it would "adjust PMICRs to align accounting treatment of opex with the regulatory treatment if companies use the PAYG rate above the accounting level"[35].

However, for our final determinations, we consider that, on balance, it would not be appropriate for us to require a faster transition to CPIH in our final determinations. We set out the position of a partial transition following extensive consultation in 2016[36], through the subsequent licence modification process in 2016[37] and in the PR19 methodology. The position of a partial transition reflected issues raised by companies and investors about the need for a managed transition. It also took account of the need to manage the effect on bills for customers and in the PR19 methodology, we set out the basis on which we would consider company proposals on the transition. In addition, we note the concern raised by Anglian Water that in the event that companies issue debt that is CPIH or CPI linked in the context of the transition to CPIH, this will increase the real coupon of index linked debt and weaken financial ratios compared with RPI linked debt. Therefore, we only consider a faster transition to CPIH where this is at the request of the company and there is evidence of customer support.

As set out in section 5.2, seven company respondents agreed with our interventions to bring forward revenue through PAYG or RCV run-off whilst other companies specifically set out that the use of financial levers is not appropriate or challenged our approach, stating that certain credit rating agencies do not take the benefit of revenue advancement.

Our view remains that if the financeability challenge results from insufficient levels of cashflow headroom, then the appropriate response is to alter cashflows through the use of PAYG or RCV run-off levers, provided that the use of PAYG or RCV run-off levers does not lead to a material depletion of the RCV. We consider such adjustments can be used to give the same effect as a faster transition to CPIH, both in terms of allowed revenues and RCV.

One view has been expressed that companies should maintain the value of the RCV as a proxy for the condition of the asset base. Adjustments to the RCV can arise for a number of reasons, linked to network extension, network enhancement and the potential for delivery of investment by other means (such as direct procurement for customers); therefore maintaining the value of the RCV is not the only relevant consideration in our financeability assessment. The RCV does not represent the true

[35] Fitch Ratings July 2019 'Ofwat price review intensifies pressure on UK water sector
[36] See for example Ofwat May 2016 Water 2020: our regulatory approach for water and wastewater services in England and Wales
[37] Ofwat 2016 Consultation under section 13 of the Water Industry Act 1991 on proposed modifications to the licence conditions

value of investment since privatisation to the extent that incentive and reconciliation mechanisms and enforcement adjustments impact on the value of the RCV.

We share the concerns of the credit rating agencies about potential for companies to use advanced revenue to support dividend policies under their actual structures that are not sustainable in the long term. Therefore, we have sought to increase the level of transparency about the use of these levers in our final determinations. In section 6.4, where we explain the decisions in our final determinations, we set out how the revenue advanced to address a financeability constraint compares to a position where we had adopted a full CPIH transition. We are also setting a clear expectation that companies clearly articulate how dividends declared or paid align with the customer interest. We do not expect companies to use advanced revenues to support dividend policies that are unsustainable in the long term.

Challenges in representations that risk has increased at PR19 meaning we should target higher thresholds for financial ratios

In April revised business plans, all companies set out that they targeted a credit rating equivalent to BBB+/Baa1/BBB+ for the notional capital structure. In doing so, companies typically referred to a target adjusted interest cover ratio of 1.5x or a specific level of funds from operations to net debt. The target ratio for funds from operations to net debt tended to vary between companies, taking account of commentary from Standard and Poor's about the threshold levels for companies under their actual structures.

In targeting an adjusted interest cover ratio of 1.5x, companies referenced 'guidance' published by Moody's and Fitch:

- In 2018, reflecting its view that business risk had increased, given a changed view of the stability and predictability of the regulatory regime and an expectation of more volatile cash flow, Moody's revised its rating guidance for the water sector, such that a UK regulated water company would have to exhibit slightly lower gearing and stronger interest coverage to maintain the same credit quality.[38] Revisions to its guidance for a Baa1 credit rating led Moody's to increase target adjusted interest cover ratio from 1.4x to 1.5x and to decrease its guidance for gearing from ≤75% to ≤72%.
- In 2018, Fitch also revised its guidelines lowering the gearing rating sensitivity by 3% and increasing post maintenance interest cover ratio sensitivity by 0.1x (from 1.4x to 1.5x)[39]. Fitch states this is in response to an increase in the business risk in the UK water industry due to a tougher proposed regulatory package for the

[38] Moody's 2018 'Regulator's proposals undermine the stability and predictability of the regime'
[39] Fitch Ratings May 2018 'Fitch revises outlook on 3 UK water holding companies to negative'

next price control with more revenue at risk. Fitch also factors in a modest reduction in the long-term predictability of the regulatory framework.

In carrying out our financeability assessment for the notional capital structure, we are guided by the information companies set out in their business plans, on which Board assurance about the financeability of the notional company structure was given. As all companies have targeted a credit rating that is two notches above the minimum of investment grade, we have used that as the basis for our financeability assessment, taking account of the levels of financial ratios in company plans.

It is not our view that regulatory risk has increased, requiring companies to demonstrate stronger financial ratios. We consider:

- The position for our financeability assessment is that companies can achieve the cost and performance commitment levels set in our determination and so there has been no material increase in risk for efficient companies at PR19. We expanded the recommended range for outcome delivery incentives at PR19 to potentially put more revenue at risk, which could increase the potential for greater cash flow volatility in the control period. However, companies also have more opportunities to earn outperformance rewards. We have also put greater protections in place at PR19 through the introduction of reconciliation mechanisms for the cost of new debt and tax. Revised cost sharing rates for Environment Agency abstraction charges and business rates provide further risk mitigation measures.
- The revised guidance of the credit rating agencies was partly in response to the expectations we have put on companies to increase legitimacy of the sector.[40] As set out in our ‘Putting the sector in balance’ position statement, the expectations we put on companies stem from a widespread concern of monopoly companies not always operating or behaving in a way that is expected of them as providers of an essential public service. These issues[41] are all matters that are within each company’s control and as such should not lead to a perception of increased regulatory risk for the whole sector. And failure by companies to take measures to maintain trust of stakeholders may increase rather than reduce regulatory risk.

In carrying out our financeability assessment we place weight on the assessment carried out by companies, taking account of the financial ratios, target credit ratings and levels of those ratios that companies set out in business plans. In their assessment of financeability, companies placed weight on the ‘guidance’ provided by

[40] As set out in by us in ‘Putting the sector in balance: position statement on PR19 business plans’
[41] These issues relate to high profile service failures, concerns about high dividend payments, levels of executive pay being out of step with service to customers and complicated and potentially risky financial structures.

the credit rating agencies for the adjusted interest cover ratio which is higher than the equivalent guidance for PR14.

The higher target threshold for the adjusted interest cover ratio means that companies in their business plans and ourselves in final determinations have had to make greater use of revenue advancement from PAYG and RCV run-off at PR19 compared with PR14, resulting in slightly greater cost in customer bills for 2020-25. We have decided not to adjust the notional gearing assumption for the final determinations as we have referenced 60% consistently since we published the PR19 methodology. However we will reflect further on these issues in future price reviews; it may be the case that levels of gearing should reduce (both notional and actual) if a perception remains that risk for the sector has increased.

Finally we note that the adjusted interest cover ratio is only one of the financial ratios considered by credit rating agencies; it has, for example, a 12.5% weighting in Moody's rating methodology.[42] For the purposes of our assessment of on the basis of the notional capital structure, we consider the level of financial ratios in the round.

Financial ratios used in our financeability assessment

For our final determinations, we retain a basket of financial metrics as part of our assessment of financeability, comprising debt ratios, equity ratios and other return metrics. These metrics draw on common approaches used in the financial markets and reflect those used by credit rating agencies in their assessment of credit ratings. The specific financial metrics and the basis of the calculations are set out in the PR19 methodology.

In our financeability assessment we review the suite of financial ratios which are incorporated in the PR19 financial model. However, we focus on the key measures of indebtedness and ability to service and repay debt which are: gearing, interest cover and funds from operations to net debt ratios. These are the financial ratios on which we place the greatest weight in our financeability assessment. This is consistent with the approaches companies have taken in their business plans and credit rating agencies that apply higher weightings to similar financial measures. We give consideration to the financial ratios deemed most significant by companies and the level of those ratios upon which the company has provided Board assurance of financeability and long-term financial resilience.

However, taking account of views expressed in representations, for the final determinations we have made revisions to: (i) the presentation of financial ratios in

[42] Moody's 2018 'Regulated Water Utilities'

relation to the treatment of infrastructure renewal expenditure; and (ii) treatment of pension deficit recovery costs.

We retain our approach to the assessment of financeability before any reconciliation adjustments as it ensures incentive mechanisms are not diluted.

Treatment of infrastructure renewal expenditure in the financial ratios

Infrastructure renewal expenditure maintains the serviceability of underground assets. Companies have different approaches to how this expenditure is reported in their statutory accounts and how it is recovered through PAYG or through RCV run-off. For draft determinations we accepted companies' specific approaches to recovering any capitalised infrastructure renewal expenditure through PAYG revenue or over the longer term through RCV run-off. We accept that this can have an impact on certain financial ratios where there is a mismatch between PAYG revenue and operating expenditure.

In our final determinations, we maintain each company's approach to recovering infrastructure renewal expenditure. However, we make an adjustment to the adjusted interest cover ratio for companies that recover capitalised infrastructure renewal expenditure through PAYG revenue to match the cash flow included in the calculation of funds from operations to the allowed costs. In doing so, we ensure financial ratios are more comparable across companies in our final determinations.

Treatment of pension deficit recovery in the financial ratios

In our assessment of financeability on the basis of the notional capital structure for the draft determinations we excluded pension deficit repair costs from the calculation of funds from operations as used in the key financial ratios[43]. A number of affected companies (Anglian Water, Northumbrian Water, South East Water, South Staffs Water, Southern Water and Wessex Water) set out this creates a mismatch in cash flows where part or all of the pension deficit costs are funded by customers through a revenue allowance. We accept this, although we maintain that pension deficit costs over and above that funded by customers are a matter for companies and their shareholders. For the final determinations, we have excluded only pension deficit repair costs that are not funded by customers.

Treatment of reconciliation adjustments in the financeability assessment

[43] The exclusion of pension deficit repair costs in the calculation of adjusted interest cover was applied to slow track and significant scrutiny companies only. No such adjustment was made to the financial model for fast track draft determinations.

We set out in the PR19 methodology that we assess financeability on the basis of the notional capital structure excluding reconciliation adjustments relating to incentive mechanisms for previous control periods. This ensures that customers do not pay more to address financeability constraints arising either from poor performance, or as a result of an adjustment being made to allowed revenue as a result of the company's performance in the previous period. Similarly, it ensures that the value of outperformance payments earned through regulator incentive mechanisms is not eroded as a result of adjustments made following the financeability assessment.

In our draft determination for Anglian Water, we followed the approach adopted by the company in its business plan to assess financeability on the basis of the notional capital structure including rewards in relation to its past performance. We accepted this departure from the PR19 methodology on the basis the approach was proposed by the company and protected the interests of customers. However, for final determinations, taking account of the lower allowed return, we apply a consistent approach across companies. Our approach is consistent with the PR19 methodology, which is to assess financeability before taking account of any reconciliation adjustments.

In its representation, South Staffs Water suggests the financeability assessment should take account of in-period outcome delivery incentive penalties. It sets out a significant skew towards a penalty position and that its financeability assessment is impaired by our assessment of its claim for the wholesale forecasting revenue incentive mechanism. We maintain our position that the financeability assessment should be carried out on the basis of an efficient company that meets its performance commitments – we consider that resolving a financeability constraint on the basis of a downside scenario would not adequately protect the customer interest.

In response to the issue raised by South Staffs on in-period outcome delivery inventive penalties, we explain in section 6.4 that we take account of such adjustments in our headroom checks. Further, in order to manage the effects of extreme cashflow and bill volatility, our final determinations offer companies the option, where outcome delivery incentive adjustments exceed ±1% of notional equity, to ask us to defer the excess to a subsequent year. We will consider such a request in light of the company's expected performance and our statutory duties in the round.

Notional dividend yield for our financeability assessment

We maintain our view that it is appropriate to set a base dividend policy based on the cost of equity as we did in the draft determinations. We consider it reasonable to assume companies should retain a proportion of the economic return given that a proportion of the return is generated from inflationary growth of the RCV and companies must finance investment in the RCV.

For the final determinations we update our assessment of the reasonable base dividend yield for our assessment of financeability on the basis of the notional capital structure to 3.0%. In calculating the base dividend yield we have adopted the same methodology as for our draft determination, updated for the allowed return on equity in our final determination. The dividend yield is calculated based on the average payout ratio of European stocks and is calculated as 48% of the nominal cost of equity for the final determinations (6.26%). It is consistent with an assessment of STOXX Europe 600 payout ratio for 2009-19 which averaged 44 per cent over 2009-19 and 48% over 2017-18. We assume that the dividend yield grows by CPIH inflation of 2.0% plus the difference between the yield and the real CPIH based cost of equity (1.18%).

Our approach assumes a notional company with higher RCV growth should finance some of that growth with retained earnings. Where companies have material RCV growth (real growth greater than 10% over 2020-25) and gearing increases above the opening notional assumption of 60%, we make an adjustment to the dividend yield to target 60% gearing at 31 March 2025. The final gearing for 2025 may vary slightly from this level if a subsequent adjustment is made to PAYG or RCV run-off rates to solve a financeability constraint.

We comment on our expectations of a reasonable dividend policy for a company under its actual structure in section 9. We set out that our expectations for a base dividend yield of up to 4% as a reasonable level for companies that have little real RCV growth and that perform in line with our determination over the period 2020-25, but that this may reduce where companies must finance material RCV growth.

Challenges on the relative risk of small companies

Our PR19 methodology set out that we saw no clear justification that small companies face higher risks than larger water and wastewater companies. We said that we do not consider there to be a robust argument for smaller water only companies having higher asset betas as a result of having higher operational gearing.

Both Affinity Water and Portsmouth Water have made representations that higher credit metrics are required in their circumstances to absorb cost shocks to maintain financial resilience. These concerns relate primarily to concerns that some companies have lower RCV relative to operating costs. For example, Affinity Water state that financial shocks are typically operationally driven, leading to overspends of opex relative to those implicit in the totex allowance. The company sets out, that the capital element of the revenue allowance (i.e. the RCV run-off rate and returns on the RCV) tends to provide a more stable cushion which can often absorb much of the impact of opex overspends. However, this cushion is less effective for companies whose opex is large relative to the capital element of the revenue allowance – or opex is large relative to their RCVs.

Affinity Water set out its view that we should target an adjusted interest cover ratio of 1.7 times and a funds from operation to net debt ratio of 12.5% for its target credit rating of Baa1 (two notches above minimum investment grade) and 1.3 times for the minimum investment grade (Baa3). The company has set a target higher than the guidance of 1.5 times set out by Moody's in May 2018[44] quoting Moody's statement within the report that "because of their smaller size and the associated risks in relation to cash flow stability, we would expect smaller companies, such as the water only companies, to exhibit a stronger AICR for an equivalent gearing level."

We do not consider Affinity Water, a company with RCV in excess of £1 billion to be a small company.

If operational gearing is a particular concern in the relative risk between water only and water and sewerage companies, we would expect to see water only companies maintaining systematically lower levels of gearing than the water and sewerage companies. We do not observe this in practice. All water only companies (including Portsmouth Water) are above our notional gearing level; the gearing level of Affinity Water is well above our notional level.

We note also that valuation multiples for water only companies are comparable and sometimes greater than those of the water and sewerage companies. This suggests that investors do not consider water only companies face higher risks than water and sewerage companies.

There are also other possible reasons for higher operational gearing stemming from previous management decisions. And, as set out in section 3, the contribution made by the retail net margin to the base equity return of water only companies typically has a beneficial effect on financeability ratios as a result the relative size of the retail business for water only companies.

[44] Moody's May 2018 Regulated Water Utilities - UK 'Regulator's proposals undermine the stability and predictability of the regime'

6.4 Our final determination decisions

Our financeability assessment is based on the calculation of key financial ratios in our financial model. We published our financial models for each company alongside our draft determinations. Where we have made changes to the financial model in response to representations, we document these within the final determination financial models.

In carrying out our assessment we have given consideration to the thresholds and the levels of the financial ratios set out in each company's revised business plan[45] along with other evidence in support of Board assurance statements and evidence companies provided in representations to the draft determinations. We note that the Board assurance statement that accompanied the company's business plans and representations were made in the context of the business plans and draft determinations; our financeability assessment is made in the context of changes made in our final determinations. Most companies set target thresholds for key financial ratios based on current guidance from the credit rating agencies.

Consistent with the approach set out in section 6.3, where we identify a financeability constraint, our approach is to:

- Restrict dividends where real RCV growth exceeds 10% to maintain gearing close to the notional level of 60%.
- Advance revenue using PAYG and RCV run-off levers to address financeability constraints on the basis of the notional capital structure.

In the following tables we summarise the steps we have taken to ensure our determinations are financeable. Table 6.3 sets out our dividend yield assumption for all companies along with the RCV growth for each company. The total growth for the sector is 5.8% (in CPIH real terms). Table 6.4 sets out the adjustments we have made to RCV run-off and PAYG to advance revenue from future customers to maintain financeability. Table 6.5 sets out the resulting average financial ratios in our final determination in 2020-25. Figure 6.1 sets out the proportion of RCV inflated by RPI and CPIH as at 31 March 2025.

As set out in Table 6.4, the revenue advanced is no more than would be brought forward by a full transition to CPIH indexation at PR19 for all companies except South East Water. For South East Water, a part of the revenue brought forward reflects that its RCV run-off was the lowest of the companies in its business plan. We explain our PAYG and RCV run-off adjustments in section 5.4.

[45] And September business plans for the fast track companies.

Table 6.3: RCV growth and dividend yield assumptions for the assessment of financeability on the basis of the notional capital structure

	Real RCV growth 2020-25	Dividend yield assumption	Additional equity retained
Anglian Water	9.5%[1]	1.84%	£201m
Dŵr Cymru	2.8%	3.00%	-
Hafren Dyfrdwy	35.9%	0%	£5m
Northumbrian Water	6.5%	3.00%	-
Southern Water	10.70%	1.41%	£175m
Severn Trent Water	3.80%	3.00%	-
South West Water	0.40%	3.00%	-
Thames Water	11.5%	1.79%	£386m
United Utilities	-4.5%	3.00%	-
Wessex Water	10.6%	2.01%	£72m
Yorkshire Water	5.7%	3.00%	-
Affinity Water	24.8%	0.82%	£60m
Bristol Water	-2.3%	3.00%	-
Portsmouth Water	12.1%[2]	1.46%	£5m
SES Water	7.6%	3.00%	-
South East Water	3.1%	3.00%	-
South Staffs Water	15.1%	2.16%	£7m

1 Anglian Water has RCV growth greater than 10% before the increase to PAYG in table 6.4.
2 RCV growth for Portsmouth is stated excluding Havant Thicket to align with our initial assessment of financeability

Table 6.4: Revenue advanced through the RCV run-off and PAYG levers

	Use of financial levers		Revenue advanced	% of allowed revenue	% of RPI inflated RCV
	RCV run-off	PAYG			
Anglian Water	-	1.92%	£80m	1.3%	0.5%
Dŵr Cymru	0.16%	1.82%	£84m	2.2%	0.7%
Hafren Dyfrdwy	-	-	-	-	-
Northumbrian Water	-	0.93%	£25m	0.7%	0.3%
Southern Water	-	2.17%	£57m	1.50%	0.50%
Severn Trent Water	-	-	-	-	-
South West Water	-	-	-	-	-
Thames Water	-	1.68%	£125m	1.2%	0.4%
United Utilities	-	-	-	-	-
Wessex Water	-	2.08%	£41m	1.7%	0.6%
Yorkshire Water	-	2.43%	£85m	1.6%	0.6%
Affinity Water	-	1.11%	£15m	1.0%	0.6%
Bristol Water	-	-	-	-	-
Portsmouth Water	-	0.50%	£1m	0.5%	0.3%
SES Water	-	0.80%	£2m	0.7%	0.4%
South East Water	0.75%	1.96%	£42m	3.7%	1.4%
South Staffs Water	-	0.12%	£1m[46]	0.1%	0.1%

Table 6.5: Summary financial ratios for final determinations for notional company structures (2020-25 average)

Water company	Gearing	Adjusted cash interest cover ratio	Funds from operations/net debt
Anglian Water	60.0%	1.50	9.49%
Dŵr Cymru	59.5%	1.51	8.28%
Hafren Dyfrdwy	61.5%	1.72	12.34%
Northumbrian Water	59.5%	1.50	9.84%
Southern Water	60.0%	1.50	11.46%
Severn Trent Water	59.8%	1.69	10.44%
South West Water	58.4%	1.46	11.26%

[46] Amendment to revenue advanced for South Staffs Water to read £1m not £1

Water company	Gearing	Adjusted cash interest cover ratio	Funds from operations/net debt
Thames Water	60.5%	1.50	8.88%
Wessex Water	60.1%	1.50	9.81%
United Utilities	57.0%	1.52	10.83%
Yorkshire Water	60.5%	1.50	10.06%
Affinity Water	60.6%	1.50	10.82%
Bristol Water	58.8%	1.47	13.53%
Portsmouth Water	59.5%	1.45	8.03%
SES Water	62.2%	1.50	13.31%
South East Water	59.6%	1.53	9.86%
South Staffs Water	60.4%	1.50	12.69%

Source: Final determinations financial models

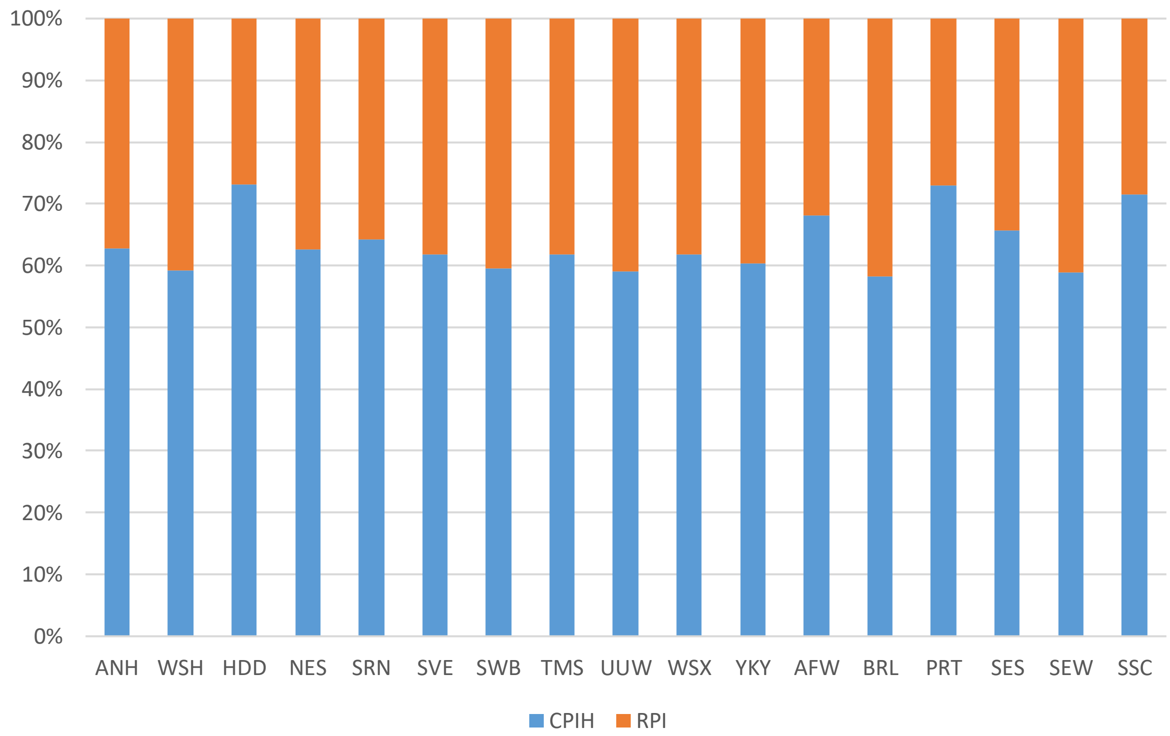
Consistent with the approach set out in our PR19 methodology, we exercise judgement in our assessment of the financial metrics in the round, taking account of the level of the financial ratios companies proposed in their business plans and reflecting that guidance issued by credit rating agencies does not necessarily imply a minimum requirement for individual financial ratios for a target credit rating. We take into account the relative strength of financial ratios in the round as well as profile of financial ratios in our assessment.

The financial ratios for Portsmouth Water, in particular the funds from operations to net debt ratio, are impacted by the Havant Thicket price control where development costs for the Havant Thicket reservoir are added to RCV and recovered over a 80 year life. Financial ratios excluding the Havant Thicket control indicate a funds from operations to net debt ratio under the Ofwat definition within the range stated by the company in its representation. The costs associated with the reservoir are reimbursed by Southern Water over the life of the reservoir in accordance with the proposed bulk supply agreement.

We assess the financial ratios in our determinations in the round are consistent with a credit rating two notches above the minimum investment grade, which was the target rating for the notional company proposed by all water companies.

Figure 6.1 sets out the relative transition to CPIH for water companies by 31 March 2025 in our final determinations. The rate of transition is affected by the amount of totex added to the RCV during 2020-25 and the RCV run-off rates. The average proportion of RCV linked to CPIH for all water companies as at 31 March 2025 is 63.6%.

Figure 6.1: Proportion of RCV inflated by RPI and CPIH at 2025



Source: Final determination financial models. Portsmouth includes the Havant Thicket, which is subject to a separate cost of capital.

Stress testing in our determinations

In its representation, Thames Water suggest our determinations should include some sensitivity analysis to test that our determinations are robust to downside scenarios. We expected companies to set out details of the financial resilience of their actual structures in their business plans, but for our final determinations, as an additional measure we have carried an additional assessment to check the headroom of the notional structure to maintain interest payments in the period 2020-25.

For the purpose of stress testing we select a threshold of maintaining an adjusted interest cover ratio above 1.0x. This is the point where profit (before interest) is just sufficient to pay cash interest costs. In this situation the company can meet all its day to day running costs and maintain its regulatory capital value, but would not generate any returns for shareholders. It would be able to continue operating, but would need a plan to restore the financial performance of the business.

In the final determination documents for each company we set out the five-year headroom to an adjusted interest cover ratio of 1.0x.

A reduction in funds from operations could be the result of additional cost spend, lower revenue, regulatory penalties or a combination of these. For our stress test we create a downside scenario with an outcome delivery incentive downside of 1% of regulatory equity and a totex downside based on the P10 figures in our risk analysis in section 3. We calculate the totex downside by multiplying our base totex cost allowance by the relevant PAYG rate to proxy an opex downside scenario.

For our stress test we compare the adjusted interest cover ratio in the downside scenario to the 1.0x threshold. Many companies pass this stress test and some narrowly fail. However, we note that in practice, in a totex regime, companies have significant scope to mitigate this downside risk by determining the most efficient mix of expenditure and taking steps to control costs and focus management to mitigate downside performance issues. We consider it unlikely the downside levels of cost and service performance should persist for the full period of a price control.

We note that in addition, a proportion of the totex downside is temporal because companies benefit from totex cost sharing through reconciliation adjustments at PR24; this is an issue that must be managed by companies and their investors but in a downside scenario the reconciliation mechanism provides regulatory certainty about the proportion of overspend that companies will recover at PR24.

Furthermore, as set out in section 3.4, to mitigate the scope for extreme cashflow (and bill) volatility associated with outcome performance delivery reconciliations in 2020-25 we propose to offer companies the option, in the PR19 reconciliation rulebook, to ask us to defer incentive adjustments that exceed +/-1% of notional equity to a subsequent year in the regulatory period, or for reconciliation at PR24.

On the basis of the stress tests results and additional risk mitigations built into the PR19 methodology, our stress testing does not change our conclusions about the financeability of our determinations as set out in section 6.4.

7 Financial resilience

Key messages for our final determinations:

- Companies are responsible for the financial resilience of their own capital structures.
- A number of companies have set out proposals to improve financial resilience in 2020-25 by restricting dividends, injecting new equity or other capital restructuring measures, and some companies, including SES Water, South East Water, Southern Water, Thames Water and Hafren Dyfrdwy have taken steps to strengthen their balance sheets ahead of 2020.
- Based on evidence presented in business plans and our determinations, taking account of the lower allowed return in our final determinations, we consider Southern Water, Yorkshire Water and Affinity Water will need to bring forward plans to demonstrate how they will maintain financial resilience in 2020-25.
- We will continue to apply a higher bar in challenging companies to demonstrate they will remain financially resilient in the long term where they exhibit lower levels of financial headroom, either as a result of their capital and financing choices or as a result of actual performance. This includes Anglian Water, Thames Water and South East Water who propose to maintain high levels of gearing in 2020-25, along with Portsmouth Water and South Staffs Water which need to fund material RCV growth.
- We will monitor the assessments companies provide in their Long Term Viability Statements in their Annual Performance Reports. All companies commit that their assessment of financial resilience in the Long Term Viability Statements in their Annual Performance Reports in 2020-25 will extend into the long term, that is, beyond the period of the price control.

Companies and their investors are responsible for ensuring the long term resilience of their financial structures. The PR19 methodology expected companies to demonstrate, in their business plans, that their actual financial structures allow them to maintain financial resilience in 2020-25 and in the long term, taking account of their overall assessment of risks related to their capital structures as well as potential cost shocks. We clarified in our "Putting the sector in balance: position statement" (31 July 2018) that we expected companies to assess their own downside scenarios and also to assess a minimum suite of scenarios that we prescribed to facilitate our assessment.

We commented on the information companies provided in our initial assessment of business plans and, for a number of companies, challenged them to demonstrate they are taking account of all relevant factors in their assessment of financial resilience.

7.1 What we said in our draft determinations

In our draft determinations we requested that companies provide further Board assurance that they will remain financeable and that they can maintain the financial resilience of their actual structure, taking account of the reasonably foreseeable range of plausible outcomes of their final determination including evidence of further downward pressure on the cost of capital.

We set specific actions for Anglian Water, South East Water, South Staffs Water, Southern Water, Affinity Water, Thames Water, and Bristol Water to provide additional Board assurance. We expected the revised Board assurance to set out further detail of the steps each company is taking to demonstrate that it will maintain financial resilience in the long term.

Actions for Southern Water and Affinity Water requested evidence of support from equity investors and independent assurance about their long-term viability, including their ability to maintain sufficient headroom with respect to target credit ratings for the actual financial structure. The action for Southern Water was in the context of the financial implications of an enforcement penalty in light of our findings in an investigation and the potential outcome of an ongoing investigation by the Environment Agency.

Actions for Yorkshire Water, Bristol Water, Portsmouth Water and South East Water were set within the context of limited headroom within the credit rating targeted for the actual financial structure which is lower than the credit rating stated for the notional capital structure, placing greater risk on customers.

7.2 Stakeholders’ representations

Most companies gave qualified Board assurance statements in their representations. Concerns raised were linked to company representations about the overall level of stretch, taking account of our interventions on costs, outcome delivery incentives and the allowed return on capital. Northumbrian Water, Thames Water and Wessex Water expressed particular concerns about financial resilience with respect to the draft determinations.

Company responses to specific actions placed on companies in the draft determinations are summarised below:

- Where we had requested companies to provide further board assurance in respect of the steps they are taking to demonstrate that they will maintain financial resilience in the long term, then all companies provided additional information. However Thames Water said it was unable to provide assurance that it would remain financially resilient under the draft determinations.
- We challenged Affinity Water to provide further transparency about its plans to improve financial resilience. In its representation Affinity Water set out that it will aim to reduce gearing to 75% or below in the period 2020-25 through an equity injection of £35 million, reinvestment of the profits from the non-appointed business and retention of dividends. It says these plans are subject to the terms of the final determination. Affinity Water obtained independent assurance from Evercore Partners International LLP to support its conclusions on the long term viability of its actual capital structure.
- Anglian Water's representation includes an aim to reduce its gearing to the mid-70s in the period 2020-25.
- In response to our challenge to reduce gearing South East Water confirms that it has secured an equity injection of £54 million which will allow it to reduce gearing to 75.4% by the end of 2020-25.
- Southern Water provides a letter of support from its parent company Greensands Holdings Limited confirming that it supported the proposals that Southern Water has set out in its plan to strengthen its capital structure and improve its financial resilience, including restricting the payment of dividends to retain equity in the company.
- South Staffs Water provides additional board assurance which demonstrates that following the repayment of a £15 million loan it has previously made to a group company, it has increased the financial headroom available to it against its target credit ratings.
- Portsmouth Water sets out additional Board assurance on the actions it could take to maintain its target credit ratings in the context of the Havant Thicket winter storage reservoir development.
- We asked Yorkshire Water to provide more information on its proposals to reduce gearing to 70% by 2021. Following the draft determination, Yorkshire Water revised the timing of its proposals. It is now aiming to do this by 2025 through the retention of dividends, and the introduction of £625 million of new funds, via the partial repayment of existing intergroup loans, in three tranches starting in 2020-21. These cash injections are to be funded by the issuance of debt above the regulatory ring fence.

7.3 Our assessment and reasons

We set out in section 6 that we consider our determinations to be financeable on the basis of the notional capital structure. However companies and their investors are able to make their own choices about their capital and financing structures, and they, rather than customers should bear the risk of a company's choice of capital structure.

Companies with high gearing levels have a lower equity base to absorb financial shocks, which can heighten the risks to a company's financial resilience. Companies with high cost debt or that are subject to penalties for poor performance may have low levels of headroom in financial ratios to withstand cost shocks. This can lead to a lower credit rating assessment from the credit rating agencies.

Reflecting the expectation of a lower allowed return on capital at PR19, we have, for some time[47], signaled a need for highly geared companies to ensure their financial structures will remain resilient and, where necessary, to amend their financing structures to ensure long-term resilience.

We will continue to apply a higher bar in challenging companies to demonstrate they will remain financially resilient in the long term where they have lower credit ratings and exhibit lower levels of financial headroom, either as a result of their capital and financing choices or as a result of actual performance.

Some companies have already taken steps to restructure their debt financing arrangements and/or reduce gearing levels in the context of the expected allowed return on capital in 2020-25; others are proposing dividend restrictions and equity injections to improve resilience. Gearing levels for actual company structures reported as at 31 March 2019 in annual performance reports, and projected for 31 March 2021 and 31 March 2025 in revised business plans, as updated for representations to our draft determinations are set out in Table 7.1.

[47] See for example, Cathryn Ross's speech at Moody's conference in 2017.

Table 7.1: Companies' reported (2019) and forecast (2021 & 2025) year-end gearing for their actual company structures (%)

Company Name	2019 (%)	2021 (%)	2025 (%)
Anglian Water	78.6	79.7	77.1
Dŵr Cymru	56.0	58.0	54.8
Hafren Dyfrdwy	66.5	61.4	63.1
Northumbrian Water	66.8	68.9	69.7
Severn Trent Water	63.7	62.9	65.1
South West Water	58.9	63.7	62.1
Southern Water	68.8	70.0	69.1
Thames Water	81.9	80.6	76.9
United Utilities	64.8	62.1	60.0
Wessex Water	64.7	68.8	69.1
Yorkshire Water	75.8	74.9	69.8
Affinity Water	79.7	80.1	76.8
Bristol Water	64.6	68.0	67.9
Portsmouth Water	66.3	57.4	55.3
South East Water	78.5	76.7	76.0
South Staffs Water	70.6	67.5	69.6
SES Water	60.9	69.1	69.8
Sector Average	**68.7**	**68.8**	**67.8**

Source: Companies' reported 2019 figures taken from the latest 2018-19 annual performance report. Companies' forecast 2021 & 2025 taken from company representations where companies have provided this information, otherwise taken from company April business plans.

Some companies set out developments in their plans to improve financial resilience by the start of the 2020-25 period:

- In 2018-19, SES Water reduced its gearing level from 77% at 31 March 2018 to 60.9% at 31 March 2019 by converting £12 million of preference shares into ordinary issues and issuing a further £38 million of ordinary shares.
- South East Water has undertaken an equity injection of £54 million at the regulated company level.
- Southern Water has taken some steps to reduce gearing. £700 million of new equity (before issuance costs) was introduced in early 2019 in the context of its high gearing and interest costs together with the expectation of weaker financial ratios following PR19. The company has been seeking to refinance part of its debt swap portfolio to reduce its interest costs.
- Thames Water received an equity injection of £250 million in April 2019.

- Hafren Dyfrdwy obtained new equity to reduce its gearing towards the notional level and restructured its borrowings in 2019 to reduce its interest costs.

Most companies with high levels of gearing signal steps to reduce gearing in 2020-25. Some companies, including Anglian Water. Thames Water, South Staffs Water and SES Water propose improved levels of financial resilience will be achieved through modest gearing reductions by constraining dividends, while Affinity Water and Yorkshire Water are also proposing additional equity injections.

However, some companies have stepped back from more ambitious proposals to improve financial resilience in their original business plans:

- In its original business plan, Yorkshire Water indicated that it would reduce gearing to 70% by 2021, but it subsequently indicated in its representation to the draft determination that the target date for that reduction would be pushed back to 2025, but that it would review this again once the final determination was set.
- Through the process of setting its determination, we have challenged Affinity Water to provide details about a proposal to maintain the long term financial resilience of the company and to reduce gearing towards 70%. In its representations it has indicated that it will aim to reduce gearing to 75% or below in 2020-25 through an equity injection of £35 million, reinvestment of the profits from the non-appointed business and retention of dividends.

In the cases of Southern Water, Thames Water, and Yorkshire Water, debt raised above the level of the ring fence is being used (or is proposed to be used) to reduce gearing of the appointed business through equity injections or the repayment of existing intercompany loans; we expect companies to be transparent about such arrangements to customers and other stakeholders, given the challenges complex financing arrangements pose to the legitimacy of the sector.

7.4 Our final determination decision

The evidence presented in business plans and the assessment we have carried out in our determinations suggest some companies with high levels of gearing and/or a high cost of debt do need to take steps to maintain their financial resilience. Based on evidence presented in business plans and our determinations, we expect Southern Water, Yorkshire Water and Affinity Water will need to bring forward plans to demonstrate how they will maintain financial resilience in 2020-25.

We will continue to apply a higher bar in challenging companies to demonstrate they will remain financially resilient in the long term where they exhibit lower levels of financial headroom, either as a result of their capital and financing choices or as a result of actual performance. In addition to the companies listed above, this includes Anglian Water, Thames Water and South East Water who propose to maintain highly geared structures in 2020-25 and companies that have more limited headroom in their credit ratings.

All companies have committed to meet our expectation that their assessment of financial resilience in their Long Term Viability Statements in their Annual Performance Reports should extend beyond the period of the price control. We expect companies to assess a set of suitably robust downside scenarios in their Long Term Viability Statements (for example as set out in 'IN 18/04: Expectations for companies in issuing long term viability statements'). We will monitor the assessments companies provide in their Long Term Viability Statements in the period 2020-25 and beyond. We will also monitor progress against proposals companies have made to improve financial resilience.

Following the final determinations, where we remain concerned that companies are not taking adequate steps to maintain financial resilience in 2020-25 and beyond, we will engage directly with them and will challenge them to demonstrate to us that the actions they are taking are appropriate and the levels of financial resilience are sufficient to meet their statutory obligations and customer commitments.

8 Tax

Key messages for our final determinations:

- Our draft determinations set out that companies could update specific information related to the calculation of tax in their representations.
- Five companies provided updated information which we have taken into account in our final determination.
- We calculate the tax allowance using our financial model based on the projected taxable profits of the appointed business and the current and enacted UK corporation tax rates and associated reliefs and allowances as at 30 September 2019.
- We retain the approach to the reconciliation mechanism for changes in corporation tax or capital allowance rates in our final determination.

We set out our approach to tax in the PR19 methodology. Our approach is largely consistent with the approach that we have used in previous price reviews. However, our PR19 methodology introduces changes in some areas, including:

- That companies should pay full tax value for any group losses that they utilise (or receive full tax value for any losses surrendered to other group companies). Where companies do not do this, we will reclaim any tax allowances that were not needed through our price determinations; and
- A reconciliation mechanism to adjust the tax allowances for changes in corporation tax or capital allowance rates that were enacted after the final determination was made.

8.1 What we said in the draft determination

We calculated tax allowances reflecting the corporation tax that each company expects to pay in 2020-25. We calculated the tax allowance using our financial model based on the projected taxable profits of the appointed business and the current UK corporation tax rates and associated reliefs and allowances. The information was updated to take account of the changes to the capital allowances regime announced in the 2018 budget.

We set out in our draft determinations that our interventions on forecast levels of capital expenditure might impact on forecast inputs for capital allowances or tax deductions; and that assumed recovery rates for new connections might also lead to differences in tax forecasts. We set out where changes resulted in significantly different inputs for tax allowances or tax deductions, that companies should identify this as part of their representations on the draft determinations.

We set out an action for South Staffs Water and SES Water to provide further evidence to explain the assurance process they had taken to develop their tax forecasts. We also set an action for Portsmouth Water to provide separate tax information for the water resources and Havant Thicket controls.

8.2 Stakeholders' representation

Five companies (Anglian Water, Wessex Water, Yorkshire Water, Affinity Water and Bristol Water) provided updated tax information to reflect the change in forecast capital allowances as a result of our view of totex in the draft determination and also to reflect the latest information available for the opening balances. Portsmouth Water provided updated tax information for the water resources and Havant Thicket controls.

Thames Water provided updated tax information to remove a tax adjustment made to ensure that there was no tax funding generated, in relation to the intercompany loan interest income. SES Water provided a report from its auditors which provided commentary on the process taken by the company to prepare the tax forecasts and the reasonableness of the assumptions driving the forecasts. It also provided further detail on the work done by their external tax advisors. South Staffs Water did not provide any evidence of assurance on its tax forecast as no formal engagement was undertaken. The company indicates it took a proportionate approach to assurance reflecting the relative impact of tax on customers' bills. We received no representations on our proposed tax reconciliation model.

8.3 Our assessment in the final determinations

We reflect the updated capital allowance information on tax provided by five companies in our final determinations. We have retained the current and enacted UK corporation tax rates and associated reliefs and allowances that were applied in our draft determinations, updated for changes to the capital allowances regime announced in the 2018 budget. These inputs remain current as at 30 September 2019.

We also reflect the updated tax information provided by Portsmouth Water in response to our action. Further detail is set out in the 'Havant Thicket technical appendix'.

We have accepted Thames Water's updated tax information to remove part of the tax adjustment relating to the intercompany loan for Thames Water, as we agree that as our final determination excludes the intercompany loan, the adjustment is not required. Following further information provided in response to a query we understand that part of the remaining adjustment to taxable profits included in its revised business plan relates to deficit repair pension contributions that are funded by shareholders. As our financial model only reflects the deficit repair payments that are funded by customers through price limits (consistent with the expectations set out in IN 13/17), this adjustment is not required. Thames Water subsequently agreed that this element of the adjustment should also be removed.

We have reviewed the additional evidence on assurance provided by SES Water and we consider this represents sufficient evidence that it undertook a reasonable approach to the assurance of its tax information. For South Staffs Water, whilst the company has not provided sufficient evidence to demonstrate that its approach to assurance was reasonable, on the grounds of materiality of the tax allowance we take no further action for the final determination. We are currently developing our approach to the assurance of data and information for the next price control period and will provide more details in early 2020.

8.4 Our final determination decision

We calculate the tax allowance using our financial model based on the projected taxable profits of the appointed business and the current and enacted UK corporation tax rates and associated reliefs and allowances as at 30 September 2019. Tax allowed for each company is stated in Company-Specific Document for each company that accompanies its final determination.

8.5 Tax reconciliation mechanism

Our PR19 methodology introduces a tax reconciliation mechanism, which will take account of any changes to corporation tax or capital allowance rates after we make our final determinations. These adjustments will be subject to reconciliation at PR24.

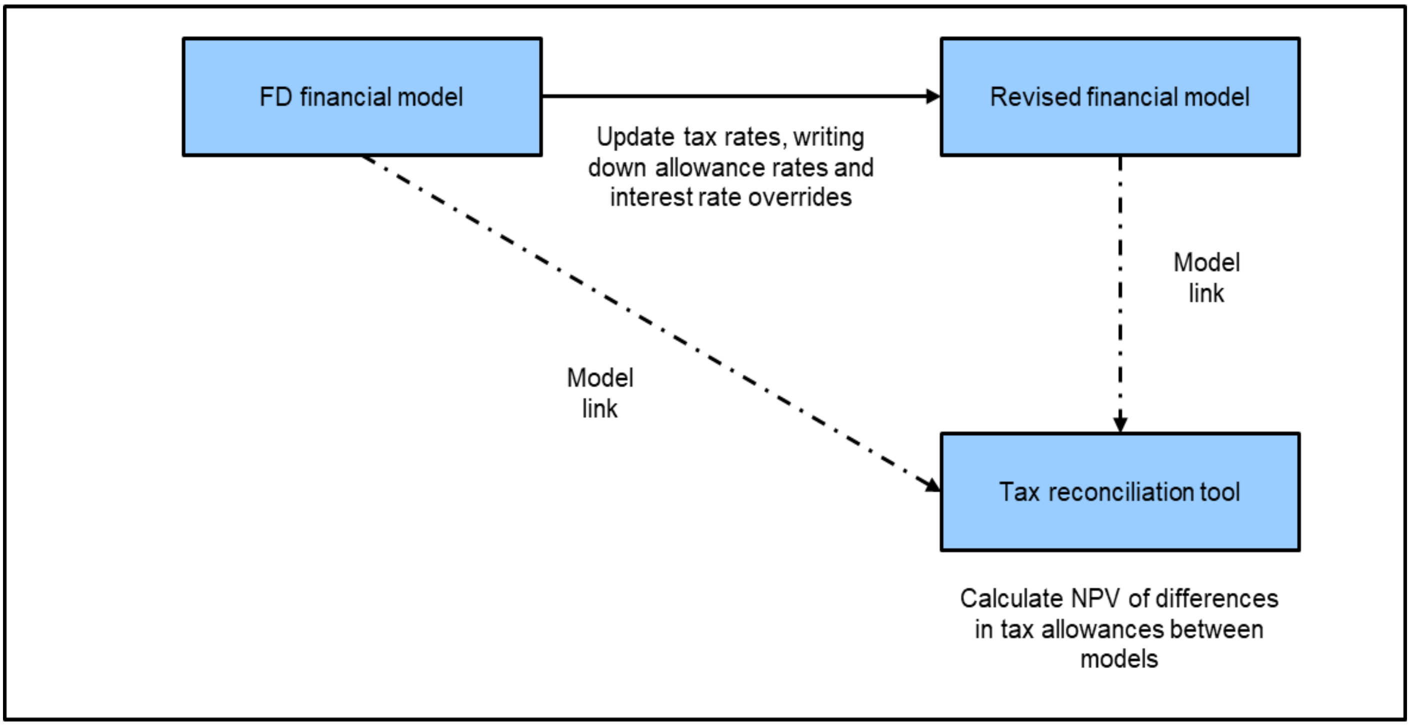
Our reconciliation will recalculate the tax allowance for each year, to reflect changes to either the headline corporation tax rate or to the writing down allowances available on capital expenditure.

Our PR19 methodology also introduces a cost of new debt indexation mechanism and the PR19 methodology confirmed that when calculating the reconciliation adjustments for corporation tax, we will take into account the impact on the tax charge arising from changes to the cost of debt, calculated from the cost of new debt index mechanism.

Our tax reconciliation tool (as illustrated in figure 8.1), will draw from the published version of the PR19 financial model and a version updated for changes to the statutory corporation tax rate, capital allowance writing down allowances and the updated cost of debt calculated in the cost of debt mechanism in the 2020-25 period. It will then calculate the adjustment required at PR24 based on the difference in the tax allowance if the revised inputs had been used at PR19. We received no representations on the tax reconciliation tool. Alongside the tax reconciliation tool we have also made revisions and republished our cost of new debt reconciliation spreadsheet.

Our PR19 methodology sets out that where companies have not paid full tax value for any group losses utilised in 2020-25 (or where they have not charged full tax value for any losses surrendered to other group companies), we will reclaim any tax allowances that were not needed at PR24. The reconciliation model contains input lines to enable companies to capture any adjustments necessary for such adjustments to be made.

Figure 8.1: Tax reconciliation tool



9 Putting the sector in balance

Key messages for our final determinations:

- Companies need to implement their commitments and continue to develop best practice in their dividend and performance-related executive pay policies, to ensure they align with customers' interests in the 2020-25 period. This includes ensuring that these policies include performance targets that are set by reference to the final determinations.
- We have updated our assessment of a reasonable base dividend for 2020-25. We propose a base dividend yield of up to 4% as a reasonable level for companies that have little real RCV growth and that perform in line with our determination in 2020-25. Where a company must finance material growth of the asset base or where long term financial resilience is at risk, it may need to reduce this base dividend or investors may need to invest more equity.
- All companies have taken steps to demonstrate that their performance related executive pay policies demonstrate alignment to delivery for customers, however a number fall short of the 60% alignment to customers we identify as best practice amongst the companies we regulate. We expect that companies' remuneration committees will ensure there is on-going rigorous challenge as to how the policies are applied, that targets remain appropriate and stretching in the period 2020-25 and to ensure that only truly stretching performance is rewarded.
- For several companies, our current assessment of their proposed dividend policy indicates that the company is falling short in a number of areas and we expect greater transparency from these companies when reporting on dividends paid over 2020-25 in the annual performance report.
- We have updated the gearing outperformance sharing mechanism with a glide path. The trigger starts at 74% for the year 2020-21 and will reduce by 1% each year, ending at 70% for the year 2024-25. We have not accepted the revisions to the mechanism proposed by Thames Water, South Staffs Water, Bristol Water and Yorkshire Water.
- We continued to encourage companies with a low cost of embedded debt to consider proposing voluntary sharing mechanisms on cost of debt. There were no new proposals from companies of any sharing mechanisms on the cost of debt in the company representations.

In July 2018 we published our 'Putting the sector in balance: position statement' which makes targeted amendments to the PR19 methodology that aim to encourage companies to take greater account of customers' interests. The document sets out our aim to improve trust and confidence in the sector including encouraging companies:

- to act in a manner consistent with their responsibilities as providers of essential public services;
- to be transparent and accountable to customers and wider society; and
- to have appropriate alignment of the interests of company management and investors to the interests of current and future customers.

The position statement sets out our expectations for company policies on dividends and performance related executive pay in 2020-25. It sets out our expectation that companies with high gearing levels should apply a gearing outperformance mechanism that allows customers to share in the returns equity investors achieve from high gearing. The position statement also sets out an expectation that companies should consider voluntarily sharing the benefits of outperformance with customers.

We assessed and commented on the evidence companies provided on these issues in our initial assessment of business plans and in our draft determinations. Alongside our draft determinations we set out examples of the good practice in the dividend and performance related executive pay polices we had seen amongst the companies that we regulate.

In this section, we summarise our assessment of each company's proposals against the expectations we set out in the 'Putting the sector in balance position statement'. In section 7 of the final determination documents for each company we set out further detail on each company's proposals and the further steps we consider each company may need to take to fully meet our expectations.

9.1 Dividend policy

9.1.1 What we said in our draft determinations

In our initial assessment of business plans and in our draft determinations, we assessed the commentary companies had provided on their dividend policies in 2020-25 against the criteria we set out in our 'Putting the sector in balance' position statement. This included reference to a reasonable base dividend of 5% over the period of the price control (in nominal terms) as a reasonable reference point for a company performing in line with its price determination[48].

Our draft determinations set out our assessment of company proposals against our expectation that company decisions on dividends declared or paid should vary from this base dividend having regard to all relevant factors, particularly in respect of each company's wider obligations and responsibilities, and having demonstrated how the final dividend takes account of the interest of customers. The factors we considered were referenced in the 'Putting the sector in balance' position statement.

Drawing on good practice from the companies we regulate, for the majority of companies our draft determinations raised actions for companies to address in their representations asking them to set out:

- the specific obligations and commitments to customers and other stakeholders that they will consider when determining dividends under their policy;
- the performance levels or expectations that the obligations and commitments will be considered against, including reference to the final determination of price limits where appropriate; and
- how the above factors will impact on dividends.

9.1.2 Stakeholders' representations

Companies responded to our action requirements in their representations. The quality of the responses varied with some companies providing very little in the way of additional information on dividend policies in the period 2020-25 and other companies - Severn Trent Water, United Utilities, Yorkshire Water, Bristol Water, Hafren Dyfrdwy, Portsmouth Water and South Staffs Water - providing much more detail. Anglian Water, Thames Water, and Wessex Water did not cover all of the actions from the draft determination. We assess and summarise the information provided by the companies as part of business plans, query responses and representations in section 9.1.3 below.

SES Water stated that its dividend policy is still to be expanded, agreed and published, with final decisions not due to be made until February 2020.

[48] We calculated this based on the upper end of the payout ratios for the European market as a whole over 2011-17 (70%) as applied to the PR19 'early view' of the nominal cost of equity. We also referenced our agreement to the proposals put forward by two companies that company boards should be expected to justify the dividend in the round (i.e. from zero upwards) not simply the variance from a 5% return (or any other figure). We set out that an explanation of dividend yields is required irrespective of the base dividend a company sets itself.

9.1.3 Our assessment and reasons

Table 9.1 below summarises companies' proposed dividend policies in 2020-25 in relation to the following factors:

- Policy Factors – Does the dividend policy reference all the factors included in our 'Putting the sector in balance' position statement (adjustments for out/underperformance against regulatory metrics and benefit sharing, employee interests, pension obligations, actual capital structure, the need to finance future investment (RCV growth) and financial resilience)?
- Commitments to customers – Does the dividend policy include sufficient detail on the specific obligations and commitments to customers and other stakeholders that will be considered?
- Performance levels – Does the dividend policy confirm the performance levels, obligations and commitments that will be considered when determining a dividend, including reference to the final determination of price limits where appropriate?
- Two way – Is the dividend policy explicit that dividends paid will lead to both upwards and downwards adjustments to the base dividend yield depending on a company's performance in meeting its commitments and obligations to customers?
- Impact – Does the dividend policy explain how the above factors will impact on dividends paid?
- Transparency - Does the company commit to our expectations around transparency, including publishing information on dividend policies and signalling changes to stakeholders?

Some companies have not provided sufficient detail and clarity on their proposed dividend policies to demonstrate that they will meet our expectations. The table below highlights where companies will need to improve their reporting on dividends in the period 2020-25.

For Northumbrian Water, our current assessment of its dividend policy shows that the company is falling well short in a number of areas with too much focus on distributions to shareholders and insufficient weight given to align with customers' interests and we expect greater transparency from the company when reporting on dividends paid over 2020-25 in the annual performance report.

We expect each company to be transparent when explaining its dividend policy and reporting on dividends paid in 2020-25. We expect it to meet the expectations we set out in our 'Putting the sector in balance' position statement and as updated in section 9.1.4 of this document.

Table 9.1: Our assessment of companies' proposed dividend policies in 2020-25 and proposed base dividend yield, (actual structure)

Company	Policy factors[49]	Commitments to customers	Performance levels	Two way	Impact	Transparency	Base Dividend yield %
Anglian	✓	✓	✓	✗	✗	✓	4.5%
Dŵr Cymru[1]	✓	✓	✗	✗	✗	✓	2.6%
Hafren Dyfrdwy	✓	✓	✓	✓	✓	✓	4.5%
Northumbrian	✓	✗	✗	✗	✗	✓	4.52%
Severn Trent	✓	✓	✓	✓	✓	✓	5%
South West	✓	✗	✓	✓	✓	✓	5.5%
Southern	✓	✗	✓	✓✓	✓	✓	5%
Thames	✓	✓	✓	✗	✗	✓	3%
United Utilities	✓	✓	✓	✓	✓✓	✓	5%
Wessex	✓	✗	✗	✓	✗	✓	2.7%
Yorkshire	✓	✓	✓	✓	✓	✓	5%
Affinity	✓	✓✓	✓✓	✓✓	✓	✓	5%
Bristol	✓	✓	✓	✗	✓	✓	3.4%
Portsmouth	✓	✓	✓✓	✓	✓	✓✓	5%
South East	✓	✗	✓	✗	✗	✓	1.77%
South Staffs	✓	✓	✓✓	✓✓	✓	✓✓	3.1%
SES Water	✓	✗	✓	✓	✗	✓✓	3.8%

✓✓- indicates best practice amongst the companies we regulate on the basis of information presented to us for policies that will apply in the period 2020-25. ✓ Meets our expectations on the basis of information presented through PR19. ✗ Falls short of our expectations based on information presented in PR19. Some companies may refer to lower % dividend yield, after netting of intercompany transactions. For consistency of presentation and assessment we have used the average total or gross dividend yield. [1] Company limited by guarantee which does not pay an equity dividend but maintains a 'customer dividend'

[49] Amendment to remove footnote references in table header for 'Policy factors', 'Commitments to customers' and 'Two Way'

9.1.4 Our expectations in 2020-25

Our determinations set the revenues which companies are allowed to recover from their customers. Our determinations set an allowed return on capital, which is calculated by reference to a notional capital structure and enables an efficient company to raise and service the debt and equity that is necessary to finance its functions and deliver its obligations and commitments to customers.

We do not regulate the level of dividends or specify the terms of dividend policies. We expect all companies to take decisions on dividends having regard to all relevant factors, particularly their wider obligations and responsibilities, and to be transparent about both their dividend policies and how such judgements are made.

Water companies provide an essential public service. Customers cannot choose their supplier, therefore it is important that customers and wider stakeholders can understand how decisions companies make about total dividends declared or paid reflect delivery to customers and their wider obligations.[50]

In addition to our 'Putting the sector in balance' position statement, our revised 'Board leadership, transparency and governance – principles' published in January 2019, sets 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 in the period 2020-25 and beyond.

In summary, 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;
- set out how their approach takes account of delivery for customers;
- ensure that their dividend policy is clearly set out in their Annual Performance Report and is consistent with all other narrative in relation to dividend policy or dividends declared or paid within the remainder of their Annual Performance Report, within their statutory accounts and within any other publication, and,
- clearly signal any changes to their dividend policy in their Annual Performance Reports.

[50] Companies should also be mindful of their licence obligation which requires them to ensure that dividends paid or declared are in line with their dividend policy. For all companies except Dŵr Cymru, this means a policy that dividends declared or paid will not impair the ability of the appointee to finance the appointed business and are expected to reward efficiency and the management of economic risk.

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

- 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.

We retain the view set out in our 'Putting the sector in balance' position statement that factors companies should take into account in the design and application of their dividend policies should include:

- whether companies are 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.

The dividend yield referenced in our 'Putting the sector in balance' position statement (5% in nominal terms) was stated as a reasonable reference point for a company performance in line with its price determination. It was calculated as the upper end of the payout ratios for the European market as a whole over 2011-17 (70%) as applied to the nominal allowed return on equity stated in our PR19 methodology.

The allowed return on equity is lower in our final determinations, reflecting updated market expectations for returns in the period 2020-25 and our more detailed analysis of the components on which the allowed return on equity is calculated, including beta. It is therefore necessary for us to update the base dividend yield that we consider appropriate for a company performing in line with our determination.

We have recalculated the reasonable base dividend using the methodology in the 'Putting the sector in balance' position statement which resulted in a base dividend yield of 4.4% (assuming 70% of the nominal allowed equity with a return of 6.27%). However, taking account of the approach we have adopted in our financeability assessment for the notional capital structure in the final determinations, we concluded that a proportion of this nominal return should be retained, particularly where a company must finance RCV growth.

Furthermore, a dividend yield of 4.4% would imply some depletion of the RCV as the yield exceeds our real allowed return on equity (4.19% in CPIH terms, 3.18% on a RPI basis), meaning that companies would need to rely on revenue advancement from future customers or outperformance to maintain a base dividend yield of 4.4%.

Our determinations propose a base dividend yield of up to 4% as a reasonable level for companies that have little real RCV growth and that perform in line with our determination in 2020-25. This level takes account of both the allowed return on equity and indexation of the RCV by inflation. Where a company must finance material growth of the asset base or where long term financial resilience is at risk, it may need to reduce this base dividend or investors may need to invest more equity. In the application of their dividend policies we expect companies to be clear about how dividends declared or paid take account of all relevant factors and the delivery of companies' obligations and commitments to customers and other stakeholders.

In broad terms, based on information presented in table 6.3, the financeability assessment we carried out for the notional capital structure suggests a 100 basis point reduction to the base dividend yield may be appropriate for each 5% increase in real RCV growth.

There are some scenarios where companies could adopt a different approach. For example, companies can finance material RCV growth through equity injection as well as dividend restriction. Where new equity is raised that is sufficient to finance the RCV growth, there may no longer be a reason to restrict the base dividend yield on account of financing RCV growth.

Our final determinations for some companies include revenue advancement through the use of PAYG or RCV run-off adjustments to meet a financeability constraint on the basis of the notional structure. Our financial modelling assumes such revenue advancement is not paid out as a dividend, as the purpose of such revenue advancement is to reduce financial risk compared to the position that would otherwise be the case. It follows therefore that we would not expect companies to use revenues derived from revenue advancement to support unsustainable dividend payments for their actual financial structures.

In the period 2020-25 and beyond, we expect to see companies evidencing how their dividend policies, and the application of those policies, take account of our expectations. We expect each company to explain how its base dividend and any adjustments to it takes account of all relevant factors in respect of the company's wider obligations and responsibilities, and to demonstrate how the final dividend takes account of the interest of customers.

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 intergroup loan from the appointee. In turn, 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 dividend payments, explaining all factors that have been taken into account.

We retain the view that, as in a well-functioning market, we would expect efficient and high performing companies to be paying dividends to their shareholders. We would also expect companies that are failing to deliver to their customers and/or with weak balance sheets to reduce or suspend dividends. Companies may need to reduce dividends where their long term financial resilience is at risk.

In the period 2020-25 we will consider whether company dividend policies and the application of those policies meet the expectations we set out above and in any subsequent guidance we issue. We will assess company commentary in support of the actual dividend yield reported by companies in their Annual Performance Reports, with the expectation that companies transparently demonstrate how that dividend yield takes account of all relevant factors. Companies will be accountable to customers and wider stakeholders for their actions and we will comment further on these issues in our annual reports on financial resilience.

9.2 Performance related executive pay

9.2.1 What we said in our draft determinations

Given the public service nature of the water sector, it is important that water companies are transparent about performance related executive pay and how it aligns to delivery of services to customers. Through the PR19 process we have challenged companies to demonstrate how their performance related executive pay policies in 2020-25 will demonstrate alignment with the interests of customers. In both our initial assessment of business plans and our draft determinations, we assessed company proposals against the criteria set out in our ‘Putting the sector in balance’ position statement.

In the draft determination we summarised for each company its progress with regard to the commitments it had made and the detail it had published on its performance related executive pay policy in 2020-25.

Our draft determinations highlighted the examples of good and best practice among the companies that we regulate. We identified that companies with good or best practice will have set out:

- Substantial alignment of incentives to delivery for customers, where a minimum of 60% alignment is evidence of good practice and where 100% alignment is evidence of best practice.
- Evidence that stretching targets will be set by reference to the final determinations or sector upper quartile performance, with a commitment to on-going review to ensure that they remain stretching in the period 2020-25.
- Inclusion of underpin or gateway provisions[51] where the award of a bonus is conditional on the delivery of another objective or set of objectives (we cited the example of South West Water which proposed an annual bonus would only be paid if at least 90% of a basket of customer outcome delivery incentives are achieved).
- A company's remuneration committee has discretionary powers to reduce in full or in part the payment of any bonus for exceptional circumstances, for example a significant detrimental customer service event such as a major service failure, or failure to meet health and safety requirements.

We set actions for all companies to address in response to our draft determinations. This provided clarity on the steps we expected companies to take to meet our expectations, highlighting the examples of good and best practice we identified from the companies we regulate.

9.2.2 Stakeholders' representations

Companies responded to our actions as part of their representations to the draft determinations. The responses were of varying quality with some companies providing more information on their proposed performance related executive pay polices in 2020-25, and with a number of companies commenting that there were awaiting their final determinations before they could finalise their policies in 2020-25. Anglian Water, Hafren Dyfrdwy, South East Water and SES Water have provided more detail on their proposed performance related executive pay since our draft determinations.

No further representations were made relating to our expectations on performance related executive pay policies.

9.2.3 Our assessment and reasons

We comment on each company's proposed policy in the company summary document that accompanies each company's determination and we summarise our assessment in table 9.2.

[51] Such provisions typically set the minimum performance terms that must be satisfied in order for an award to be made.

Table 9.2 summarises each company's proposal against the following factors, which includes the good and best practice we have identified:

- Alignment to delivery for customers - at least 60% of the measures / metrics are aligned to delivery for customers. We explain that measures that are aligned to the delivery of service to customers are those that relate to the costs of, or levels of services provided to, customers. Such measures specifically exclude financial measures (which are for the benefit of investors). Examples of specific customer service measures include C-MeX or measures such as interruptions to supply. These measures also include the totex and outcome delivery incentive components of RoRE where companies have identified RoRE performance as part of their incentive scheme.
- Stretching targets – we assess whether the company has committed to set targets that will be aligned to its final determination commitments or sector upper quartile performance
- How the policy will be monitored and rigorously applied - clear evidence of the role of the remuneration committee in developing, implementing and monitoring the policy, in particular on-going review of the policy to ensure that targets remain appropriate and stretching in the period 2020-25.
- Gateway / underpin provisions – there is evidence of any gateway or underpin arrangements or conditions that must be met in order for a bonus to be awarded.
- Transparent reporting – there is a clear commitment to transparent reporting of the full details of the application of the policy on an annual basis, including how the bonuses have been calculated. There is also a clear commitment to transparently report any changes to the policy in 2020-25 including the underlying reasons for the change.

Table 9.2: Our assessment of companies' proposals on performance related executive pay policies in 2020-25

Company	Our assessment of substantial alignment to delivery for customers[1]	Stretching targets	Role of remuneration committee	Gateway / underpin provisions	Transparent reporting
Anglian	✓✓	✓	✓	No	✓
Dŵr Cymru	✓✓	✓✓	✓	No	✓
Hafren Dyfrdwy	×	✓	✓	No	✓
Northumbrian	×	✓	✓	No	✓
Severn Trent	✓	✓	✓	No	✓
South West	✓	✓	≈	Yes ✓✓	✓
Southern	✓	✓✓	✓	No	✓
Thames	×	✓	✓	Yes	✓
United Utilities	×1	✓	✓	No	✓
Wessex	✓	✓	✓	Yes ✓✓	✓
Yorkshire	×	✓✓	✓	Yes ✓✓	✓
Affinity	×	✓✓	✓	Yes	✓
Bristol	✓	✓✓	✓	Yes	✓
Portsmouth	×	✓	✓	Yes	✓
South East	✓	✓✓	✓	Yes	✓
South Staffs	✓	✓	✓	No	✓
SES Water	×	✓	✓	Yes	✓

Notes: [1] Our understanding of the weightings provided by companies that indicate a minimum of 60% alignment of incentives to delivery of service to customers. Where RoRE comprises part of the incentive mechanism, we have calculated a value based on the previous four years performance, excluding financing performance. Based on performance in 2015-19, United Utilities falls short of 60%, but it could exceed 60% on a forward basis depending on outturn performance.

≈ The company states that its independent customer challenge panel will have a role in overseeing the monitoring and application of the policy from 2020.

✓✓ indicates best practice among the companies we regulate

✓ indicates good practice among the companies we regulate

× indicates falls short of good practice among the companies we regulate

9.2.4 Our expectations in 2020-25

The public service nature of the water sector means that companies should be transparent about performance related executive pay and how it takes account of delivery for customers. Transparency of the relationship between pay and performance can help customers see how performance related executive pay is aligned to the provision of an essential service.

Some companies have taken significant steps through the PR19 process to demonstrate that performance related pay policies in 2020-25 will take account of delivery for customers. However, evidence of how well companies are delivering on these commitments will only become apparent when they publish their Annual Performance Reports from 2021 onwards. We intend to monitor progress 2020-25, including through our assessment of how companies are meeting our Board leadership and governance objectives.

Trust and confidence in the sector can best be maintained where performance incentives align to the final determination and take account of stretching regulatory benchmarks (for example delivery of upper quartile performance). Therefore we expect all companies will have to take further steps to ensure the performance targets are stretching by reference to final determinations. We also expect each company and its remuneration committee will work to ensure its performance related executive pay policies are updated; in doing so we expect that targets are updated, reflecting prior performance, to ensure they remain stretching through 2020-25 and continue to deliver stretching performance for customers.

Where a policy applies at a group level, we expect the policy to take account of the position of each 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 each regulated company. We also expect that the customers of each regulated company within the group only contribute to any bonus payments if the performance targets for its company are met, thereby demonstrating that the policy takes account of the service delivered to the customers of each regulated company within the group.

We look for each company's remuneration committee to ensure that there is rigorous challenge on how policies are set and applied, so that only truly stretching performance is rewarded. We consider it is incumbent on each remuneration committee to ensure it has the correct powers, relevant information and tools to enable it to perform in this manner.

9.3 Sharing of gearing benefits

Companies and their investors are responsible for the decisions they make about their actual financial structure. However, where companies adopt high levels of gearing, they may reduce financial resilience and transfer some risk to customers and / or potentially taxpayers in the event that a company fails. Therefore, in our 'Putting the sector in balance: position statement', we set out that companies with high levels of gearing should share benefits with customers.

In our position statement we proposed an illustrative gearing outperformance sharing mechanism. We said we would accept alternative mechanisms if the alternative delivered equivalent benefits for customers in the round, which may include both financial and wider impacts such as risks borne by customers. We also said alternative outperformance mechanisms may include a transition period where there is compelling evidence this is in customers' interest.

9.3.1 What we said in our draft determinations

For our draft determination, 14 companies accepted our default mechanism in their business plans.

Three companies (Thames Water, Bristol Water and South Staffs Water) did not accept our mechanism and proposed their own mechanism or amendments. We assessed the companies' proposals and considered that they would not deliver equivalent benefits in the round to customers. We assigned these companies actions to incorporate our default mechanism into their business plans.

9.3.2 Stakeholders' representations

Most companies did not comment on the gearing outperformance sharing mechanism in their representations.

South East Water, Southern Water and Thames Water restated their objections to the mechanism on grounds that the mechanism is not consistent with financial theory and that companies with gearing in excess of 70% are able to maintain financial resilience.

Thames Water, South Staffs Water, Bristol Water and Yorkshire Water set out that they disagree with the design of our default sharing mechanism in their representations. The first three of these companies propose the same amendments which were in their April 2019 revised business plans, which we did not accept for our draft determinations:

- Thames Water proposes a tiered sharing mechanism with marginal sharing rates for gearing in each tier and an increase in the reference point[52] used in the gearing calculation to 70%. The company considers that its mechanism has greater incentive properties for company to reduce gearing.
- Bristol Water proposes using its own definition of gearing rather than the standard definition of regulatory gearing reported in the Annual Performance Report. The company considers its preference shares should be treated as equity rather than debt in the definition of gearing for the mechanism, and that our exclusion of this instrument from our allowed cost of debt implies inconsistency in our approach.
- South Staffs Water proposes to use its covenanted gearing rather than the regulatory gearing reported in the Annual Performance Report. The company considers its definition of gearing reflects the true liability of the company and suggests that using the regulatory gearing will affect its credit rating with Moody's.

Yorkshire Water proposes an alternative mechanism which is the same as our default mechanism from draft determinations, apart from the inclusion of a glide path for the level of gearing which triggers sharing payments (the "trigger point"). The proposed glide path starts at 76.4% for 2020-21, and reduces by 1.6% each year, ending at 70% for 2024-25.

Anglian Water has included our default gearing mechanism in its plan, but represents that increased gearing may result from the inclusion of the Elsham treatment plant direct procurement for customers scheme and that this should be excluded from gearing for the purposes of the gearing outperformance sharing mechanism.

9.3.3 Our assessment and reasons

We addressed the objections that the gearing outperformance mechanism is inconsistent with financial theory, and that gearing in excess of 70% would not necessarily affect the financial resilience of companies, in our 'Putting the Sector in Balance: position statement' and the 'Aligning risk and return technical appendix' in the draft determination. In summary:

- We commented on the application of financial theory in the context of our gearing outperformance mechanism. We set out that where companies adopt high levels of gearing, they may increase risk to equity investors and reduce financial

[52] Sharing payments are calculated on the slice of RCV between reported gearing and the reference point – 65% under our default mechanism.

resilience. They may also transfer some risk to customers and or potentially taxpayers, in the event that a company fails.

- High gearing may also reduce the ability of companies to adapt to changes to regulatory arrangements that are required in customer interests.
- Equity investors benefit from higher equity returns that are associated with their increased risk, but there is no substantive benefit passed to customers.

We reviewed Thames Water's, South Staffs Water's and Bristol Water's proposals which we rejected for the draft determination and we maintain our position and reasoning as detailed in the 'Aligning risk and return technical appendix' for the draft determination[53]. The below table provides a summary of the companies' proposals and our responses.

Table 9.3: Summary of company proposals and our responses

Company Name	Summary of company proposal and our response
Bristol Water	Bristol Water proposes using its own definition of gearing rather than the standard definition of regulatory gearing reported in the annual performance report. The company considers its preference shares should be treated as equity rather than debt in the definition of gearing for the mechanism, and that our exclusion of this instrument from our allowed cost of debt implies inconsistency in our approach. However, Bristol Water's view is inconsistent with the definition of gearing in the Regulatory Accounting Guidelines (RAGs). Bristol Water argued in its 2015 CMA appeal (with a supporting KPMG report) that its preference shares were more like debt than equity. We exclude Bristol's preference shares from the cost of debt calculation as their irredeemable nature makes them non-pure debt which we considered an unlikely inclusion in an efficient notional company's debt financing mix. Contractual, fixed payments indicate they should contribute to gearing however. Bristol Water has not provided convincing evidence that its proposed alternative mechanism would deliver equivalent benefits for customers in the round.
Thames Water	Thames Water proposes an alternative tiered sharing mechanism, arguing this is fairer, offers better incentives to reduce gearing and furthers customer interests. We assess that the company's alternative mechanism would not deliver equivalent benefits to our default mechanism. The mechanism reduces sharing payments to customers, with a large reduction in sharing payments occurring even if no de-gearing occurs. We also observe that the company expects to remain highly geared in 2024-25 (at 76.9%), compared to its March 2019 gearing of 81.9%, and that even this level of de-gearing is conditional on acceptance of Thames' updated business plan. We do not consider that Thames Water's mechanism, with step-tiered sharing rates and increase in reference point, provides benefits that are equivalent, in the round, to our glide path sharing mechanism.

[53] Aligning risk & return draft determination technical appendix, p88-92

Company Name	Summary of company proposal and our response
South Staffs Water	South Staffs Water proposes to use covenanted rather than regulatory gearing for the purposes of the calculation, arguing that our regulatory accounting definition is less relevant to its actual liability position and that using the higher gearing figure based on our definition could damage its credit rating. The company's definition of gearing is specific to its own financing arrangements and is a matter for the company and its investors. South Staffs Water already publishes its own definition of gearing in its annual performance report, therefore we conclude our use of regulatory gearing would not affect rating agencies' views in this instance. Overall, we consider that the company has not provided sufficient evidence that its proposed alternative mechanism would deliver equivalent benefits for customers in the round compared to our mechanism.
Yorkshire Water	Yorkshire Water proposes to apply a glide path to the level of gearing in our default mechanism above which sharing payments are triggered, starting at 76.4% in 2020/21 and ending at 70% in 2024/25. While recognising in principle the benefits of a glide path in terms of sharpening marginal incentives to de-gear, this will tend to be at the expense of lower sharing payments. Incentives to de-gear are also weak if the glide path is above current gearing (as is the case for Yorkshire Water - the 2020/21 trigger point of 76.4% is above the March 2019 gearing of 75.8%). Overall, we consider that the company has not provided sufficient evidence that its alternative mechanism would deliver equivalent benefits for customers in the round compared to our glidepath mechanism.

Glide path proposal

In our 'Putting the sector in balance position statement', we suggested that we would consider inclusion of a transition period if it is in the customer interest, and the overall proposals deliver benefits that are equivalent to the default mechanism. In its representation, Yorkshire Water proposes a glide path mechanism, which provides a transition period.

A glide path mechanism has potential benefits in that it can provide stronger marginal incentives to lower levels of gearing. It also recognises that sharing gearing benefits is a new mechanism at PR19 and debt arrangements may take time to unwind. Companies would gain relative to our default mechanism by reducing gearing in smaller (potentially more manageable) stages through avoiding sharing payments. If this results in more companies taking steps sooner which improve financial resilience, this could benefit customers through a reduced likelihood of them incurring the costs of failure.

The drawbacks of a glide path are that highly-geared companies with gearing below the glide path will accrue the benefits of high gearing without making sharing payments. Yorkshire Water forecasts its glide path mechanism will result in it sharing £7 million over 2020-25, which is £16 million lower than the £23 million which the company estimates it will share under our default mechanism.

In addition, incentives to de-gear are weaker if the company's gearing is already below the glide-path (as reduced sharing payments are achieved even with no de-gearing). This is the case under Yorkshire Water's proposed glide path. The company's gearing reported on March 2019 is 75.8%, while the trigger in the first year of its glide path is higher, at 76.4%.

Because of this, although we support the principle of a glide path, we are not convinced that the balance of benefits (in terms of de-gearing) and costs (in terms of lower sharing payments) is struck appropriately in the profile of Yorkshire Water's proposed mechanism glide path.

From a sector wide perspective it is difficult to ascertain how companies would respond to our default mechanism. We therefore do not take a firm view on the position that companies necessarily will reduce their gearing based on the mechanics of our default mechanism (though if they do not, customers will share in gearing outperformance benefits).

We do consider overall, however, that a glide path mechanism is more likely to encourage de-gearing (and hence potentially improve financial resilience) compared to our default mechanism. We consider that the benefits should exceed the costs in the round (provided that the glide path is set at a level that gives strong incentives to de-gear). This informs our decision to incorporate a glide path mechanism in our revised mechanism to be applied to the sector, which we discuss in section 9.2.4.

Increases in reported gearing arising due to accounting adjustments that reflect liabilities incurred due to the accounting treatment of Direct Procurement for Consumers (DPC) charges will not be included in the calculation of gearing for the mechanism. This includes Anglian Water's Elsham treatment plant and transfer scheme. The next update on the annual performance report guidance will clarify this position.

9.3.4 Our final determination decision

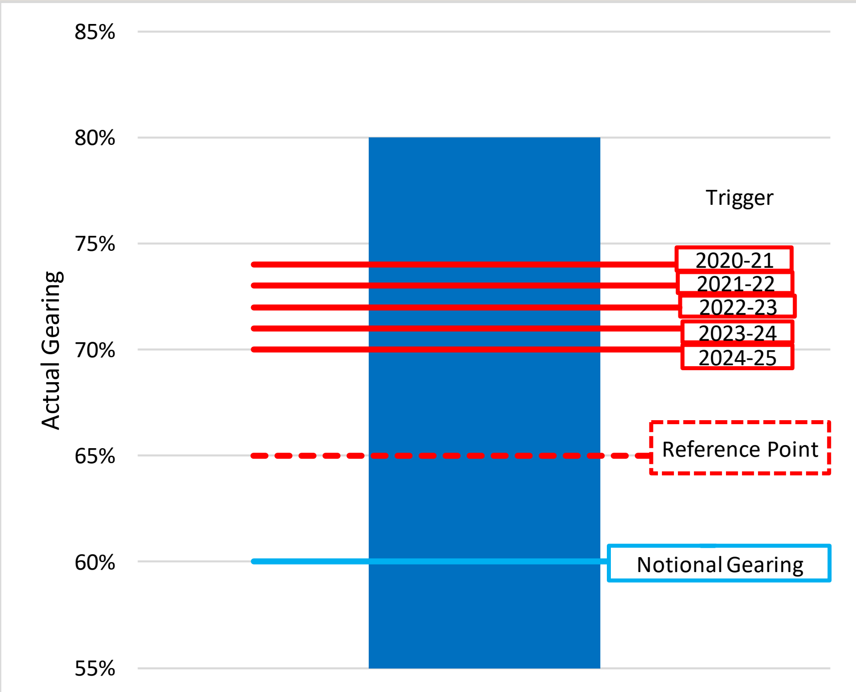
Our updated mechanism is equivalent to our default mechanism set out in our 'Putting the sector in balance: position statement', save for the application of a glide path for the gearing level which will trigger sharing payments.

The trigger point will start at 74% for the year 2020-21 and will reduce by 1% each year, ending at 70% for the year 2024-25 (as set out in figure 9.1).

Gearing levels are only one factor that impacts the financial resilience of companies. However, where highly geared companies improve their financial resilience, we consider the resulting benefits to customers are likely to be greater than any sharing payments (which we estimate to be around £210 million[54] based on gearing forecasts). As set out above, a glide path mechanism has potential benefits in that it can provide stronger marginal incentives to lower levels of gearing. It also recognises that sharing gearing benefits is a new mechanism at PR19 and debt arrangements may take time to unwind.

We will apply our updated benefit sharing mechanism alongside other reconciliation mechanisms at PR24.

Figure 9.1: Benefit sharing for high gearing – Ofwat glide path mechanism



The gearing outperformance sharing mechanism payment amount will be calculated at PR24 based on the present value of sharing payment amounts for each year of the 2020-25 period when gearing exceeds the trigger point for that year.

The trigger starts at 74% for the year 2020-21 and will reduce by 1% each year, ending at 70% for the year 2024-25.

Annual sharing payment amount
= (Gearing - Reference Point) × Sharing Rate × (Notional Nominal Cost of Equity- Actual Cost of Debt) × Closing Nominal RCV

Where:

[54] These figures are uncertain, as they reflect companies' forecasts based on our default mechanism.

Gearing = Unadjusted financial year-end regulatory gearing from the Annual Performance Report
Reference Point = 65%
Sharing Rate = 50%
Allowed Nominal Cost of Equity = 6.27% as referenced in the final determination
Actual Cost of Debt = Indicative weighted average nominal cost of debt from the Annual Performance report.
Closing RCV Nominal = from annual RCV updates

Which simplifies the formula to the below:

Sharing payment amount
= (Gearing – 65%) x 50% x (Allowed Nominal Cost of Equity - Actual Cost of Debt) x Closing RCV Nominal

The above calculation is illustrated in the reconciliation model 'Gearing Sharing Mechanism 2020-25 – final determination' Instructions on how to use the model are contained within the model, in the tab 'Front Page'.

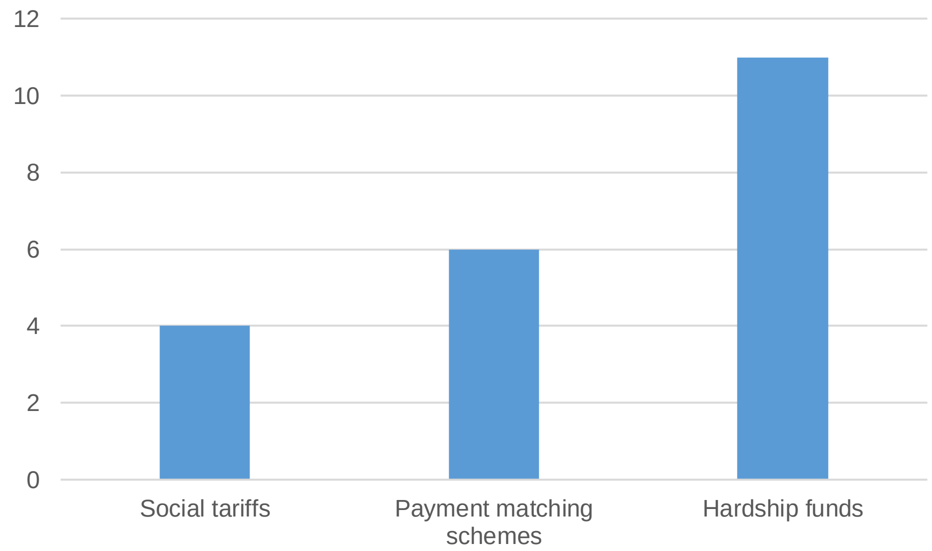
9.4 Voluntary sharing arrangements

Our 'Putting the sector in balance' position statement encouraged companies with a low cost of embedded debt to consider proposing voluntary sharing mechanisms on cost of debt.

We set out the voluntary sharing mechanisms that companies proposed in their business plans in our draft determinations. Only South West Water and Yorkshire Water propose cost of embedded debt sharing mechanisms; though in the case of Yorkshire Water, we assessed that customers will not in practice see benefits from this scheme as the company's embedded debt costs are materially higher than our notional assumption for draft determinations.

However, across the sector, from company revised business plans some companies also committed to making company contributions to affordability support schemes over 2020-25. Hardship funds are the most widely proposed, with 11 companies committing to provide funding to such schemes. Payment matching schemes and social tariffs are less popular, with 5 and 4 companies proposing contributions to these schemes, respectively. The total value of company proposed contributions to affordability support schemes had reduced between the business plans submitted in 2018 and the revised business plans. We reference the voluntary mechanisms proposed by companies in their final determination documents.

Figure 9.2: Number of companies contributing to affordability support schemes (including fast track companies)



Source: Ofwat analysis of PR19 business plans

Examples of best practice – ambitious sharing proposals

United Utilities commits to spend £71 million of its own money on financial assistance schemes over 2020-25. It has committed that dividend distributions to shareholders which exceed the base dividend plus 2% of RoRE will be matched by contributions to its CommUnity Share scheme which provides matching financial benefits for customers and communities in the North West. Allocations from the CommUnity Share scheme will be made in consultation with customers and shareholders, overseen by the CCG.

Wessex Water proposes a sharing mechanism which will reinvest 20% of net Outcome Delivery Incentive payments in community projects.

Annex 1: Company representations and our response on financeability

Table A1.1: Cost recovery now and in the long term

General issues raised in representations			
Issue raised	**Who raised the issue**	**Our assessment and reasons**	**Changes to our proposals?**
An adjustment should be made to PAYG rates in the final determination to reflect the correct proportion of operating costs in allowed totex. The split of totex between capital and operating costs for the purpose of calculating PAYG rates and for financial modelling did not reflect the underlying nature of interventions to cost allowances in the draft determination for all companies. Failure to reflect the appropriate level of operating costs results in incorrect revenue allowances and mis-statement of financial ratios.	Affinity Water, Anglian Water, Northumbrian Water, Portsmouth Water, SES Water, South East Water, South Staffs Water, Severn Trent Water, Thames Water, United Utilities, Dŵr Cymru, Wessex Water, Yorkshire Water	We applied a technical intervention to adjust PAYG rates to reflect interventions to totex allowances. However, we accept the split of totex between operating and capital costs for many companies did not in all cases reflect fully the nature of our interventions to allowed totex.	Change – we have updated our approach to determining the mix of operating and capital costs for the final determination. We shared our revised approach with water companies. We set out the approach in the ‘Securing cost efficiency technical appendix’. We continue to align PAYG rates to this mix and we have published our calculation of the PAYG rates for each company alongside our determinations.

General issues raised in representations			
Issue raised	**Who raised the issue**	**Our assessment and reasons**	**Changes to our proposals?**
Adjustments to totex and PAYG rates mean that adjustments proposed in business plans to profile bills are no longer relevant and should be removed.	Bristol Water	We accept that changes to totex and PAYG rates that change the phasing of revenue across the price control can impact on bill profiles. In the draft determination, we used the financial model to adjust revenues in a net present value neutral way to profile bills.	Change – we remove adjustments to PAYG rates that relate to bill profiling.
The use of financial levers above the natural rate is not appropriate as customers are against intergenerational inequality, and/or rating agencies say they will remove any additional fast money before assessing interest cover ratios.	Anglian Water, Northumbrian Water, Southern Water, United Utilities	We maintain that advancing revenue in a net present value neutral way is the most appropriate way to support financeability constraints on the basis of the notional capital structure caused by a mismatch between real returns and nominal interest payments and in the best interests of customers and seven companies (Severn Trent Water, United Utilities Water, Dŵr Cymru,	No change.

General issues raised in representations			
Issue raised	**Who raised the issue**	**Our assessment and reasons**	**Changes to our proposals?**
		Affinity Water, Portsmouth Water, South East Water, South Staffs Water) accept the use of revenue advancement or request further revenue advancement in their representations. An uplift to the allowed return would result in customers paying more now without the subsequent benefit of lower bills in future periods	
A technical intervention is required to RCV run-off rates for wholesale controls where a company targets a specific RCV run-off revenue consistent with current cost depreciation and Ofwat intervenes in the allocation of RCV.	United Utilities	We accept United Utilities' revised approach to the allocation of RCV to the water resources control. Therefore, we consider the representation is no longer relevant.	No change – We are allocating water RCV to Water Resources control in line with the company's representations.
United Utilities request an uplift to RCV run-off rates for RCV inflated	United Utilities	We accept faster transition to CPIH through the use RCV run-off rates	Change – we accept United Utilities' proposal to increase RCV run-off for

General issues raised in representations			
Issue raised	**Who raised the issue**	**Our assessment and reasons**	**Changes to our proposals?**
by RPI to effect a faster transition to CPIH to provide a smoother transition of bills across price review periods. The company states that customers prefer bill profiles reflecting full transition to CPIH but this should be capped to the level of bills in its September business plan.		where this is supported by sufficient evidence that this is consistent with customer preferences in relation to the resultant bill profile.	RPI inflated RCV. We apply the full 1% increase to RCV run-off rates.
Dŵr Cymru requests an increase to RCV run-off rates across all wholesale controls by on average 0.23 per cent to improve certain financial ratios. The company states that evidence submitted with its business plan supports a range for RCV run-off rates for all controls and it selected rates at the lower end of the range. Dŵr Cymru sets out that even with the proposed increase, overall the	Dŵr Cymru	We accept the proposal to increase RCV run-off rates. We consider the resultant RCV run-off rates are within the acceptable range set out in the original business plan and are supported by sufficient evidence. The increase in RCV run-off rates has a beneficial impact on the funds from operations to net debt ratio and reduces the scope of the adjustment required to financial	Change – we increase RCV run-off rates in line with Dŵr Cymru's proposal prior to our assessment of financeability.

General issues raised in representations			
Issue raised	**Who raised the issue**	**Our assessment and reasons**	**Changes to our proposals?**
RCV run-off rates remain amongst the lowest in the sector and the rate for each price control sits within the ranges implied by its third party assessment of asset data. The company sets out that the resulting average bill is consistent with the April 2019 business plan which had high levels of support from customers.		levels to improve financeability on the basis of the notional capital structure. Following the uplift, RCV run-off remains the second lowest in the sector. We accept the resultant average bills remain at a level supported by customers	
The PAYG ratio should reflect the balance of short and long term cost recovery relative to the companies' balance of operational activity and longer term capital investment.	Consumer Council for Water	The PR19 methodology sets out what we expect companies to take in to account in developing an appropriate approach for cost recovery in the period and over the longer term, including customer support for the resulting bill profile. Our draft determinations set out interventions we made to companies' plans in relation to	No change.

General issues raised in representations			
Issue raised	**Who raised the issue**	**Our assessment and reasons**	**Changes to our proposals?**
		underlying PAYG rates. We make adjustments to PAYG and RCV run-off rates where we assess higher cashflows are required to improve financeability of the notional company as set out in the PR19 methodology. We consider this protects customers from higher bills in the long run.	
When costs are reallocated from one category to another (e.g. from ‘base’ to ‘enhancement’), this can have a knock-on effect on the PAYG ratio as capital costs are typically recovered in the longer term. Ofwat should be clear in final determinations where changes in the cost assessments have led to a revised PAYG and confirm that the ratio strikes the appropriate balance of cost recovery from current and future customers.	Consumer Council for Water	We set out the basis of our technical interventions to PAYG to reflect the changes to the mix of operating and capital expenditure in ‘Securing cost efficiency technical appendix’. The purpose of the technical intervention is to maintain an appropriate approach to recovering costs in period through PAYG and	No change.

General issues raised in representations			
Issue raised	**Who raised the issue**	**Our assessment and reasons**	**Changes to our proposals?**
		over the longer term through RCV run-off.	

Table A1.2: Financeability

General issues raised in representations			
Issue raised	**Who raised the issue**	**Our assessment and reasons**	**Changes to our proposals?**
The balance of risk and return has changed since the PR19 methodology was published to the extent that an efficient company cannot expect to earn a reasonable return. The updated cost of capital does not reflect the downside skew implicit in totex allowances and ODI targets	Anglian Water, Northumbrian Water, South Staffs Water, Thames Water, Dŵr Cymru, Yorkshire Water	The allowed return on capital reflects our assessment of the market evidence. Taking account of representations, we have made some revisions to our final determinations to maintain the overall balance of risk and return which include revised cost allowances, a revised approach to calculating the allocation of totex PAYG to reflect our decisions and we made a number of revisions to our assessment of outcome	No change to our overall approach to financeability.

General issues raised in representations			
Issue raised	**Who raised the issue**	**Our assessment and reasons**	**Changes to our proposals?**
		delivery incentives. These issues are discussed further in the 'Overall stretch across costs, outcomes and allowed return on capital appendix'	
Credit metrics are insufficient for the target credit rating with the cost of capital providing financial ratios that are consistent with a BBB/Baa2/BBB credit rating. Respondents suggest this is lower than the implied reasonable target credit rating of BBB+/Baa1/BBB+ and inconsistent with the assumptions for the cost of debt for the notional company.	Affinity Water, Portsmouth Water, Southern Water, South Staffs Water, United Utilities, Wessex Water	We consider the level of the financial ratios in our determination to be sufficient for an efficient company to be financeable on the basis of the notional company taking account of the changes in our final determinations, the reasonable allowed return on capital and advanced revenue. We consider the target credit ratings for the notional capital structure is consistent with that set out by companies in their business plans at BBB+/Baa1/BBB+.	No change.

General issues raised in representations			
Issue raised	**Who raised the issue**	**Our assessment and reasons**	**Changes to our proposals?**
The split of totex between capital and operating cost for the purpose of modelling financial statements and calculating financial ratios does not reflect the underlying split due to Ofwat's draft determination interventions. Failure to reflect the appropriate level of operating costs results in overstatement of financial ratios.	Affinity Water, Anglian Water, Bristol Water, Northumbrian Water, Portsmouth Water, SES Water, South East Water, South Staffs Water, Thames Water, Dŵr Cymru, Wessex Water, Yorkshire Water	We accept the split of totex between capex and operating costs for many companies did not fully reflect the nature of our interventions to allowed totex.	Change – we have considered the impact of interventions to base and enhancement costs separately in determining the basis on which PAYG is calculated.
Higher credit metrics are required for water only companies or smaller companies. Higher operational gearing (operating expenditure as a proportion of	Affinity Water, Portsmouth Water	We have considered carefully the evidence provided in relation to the impact of higher operational gearing for smaller companies. We do not consider Affinity Water	No change.

General issues raised in representations			
Issue raised	**Who raised the issue**	**Our assessment and reasons**	**Changes to our proposals?**
RCV) means that more headroom to a minimum investment grade credit rating is required to absorb cost shocks and to maintain financial resilience.		to be a small company with RCV in excess of £1 billion. Credit rating agencies do not provide specific guidance in relation to small water companies and we consider that management can to a large extent mitigate this risk.	
The financeability assessment and definition of financial ratios does not reflect credit rating agency methodologies. The use of PAYG and RCV run-off levers is not an acceptable mechanism to solve financeability constraints.	Anglian Water, Southern Water, Northumbrian Water	Each credit rating agency adopts a different approach and we do not adopt the precise definitions of the financial ratios used by the credit rating agencies as we set out in our PR19 methodology. Credit rating agencies use different methodologies and make adjustments in their calculations of financial ratios to reflect company-specific circumstances that are not representative of the notional capital structure.	No change.

General issues raised in representations			
Issue raised	**Who raised the issue**	**Our assessment and reasons**	**Changes to our proposals?**
		We explain in further detail in section 6.3 our view that revenue advancement is an appropriate response to address a financeability constraint on the basis of the notional capital structure in the context of our duties. We note that seven companies (Severn Trent Water, United Utilities Water, Dŵr Cymru, Affinity Water, Portsmouth Water, South East Water, South Staffs Water) accept the use of revenue advancement or request further revenue advancement in their representations.	
The treatment of cash flows for allowed revenue for pension deficit recovery and the associated	Anglian Water, Northumbrian Water, South East Water,	We consider the reparation of pension deficits over and above the allowance[55] is a matter for companies and their shareholders.	Change – we are not changing the principle of the adjustment. However, we match the pension deficit recovery costs to the revenue

[55] Further detail in - IN 13/17: Treatment of companies' pension deficit repair costs at the 2014 price review'

General issues raised in representations			
Issue raised	**Who raised the issue**	**Our assessment and reasons**	**Changes to our proposals?**
payment to pension funds overstate key financial metrics	Southern Water, Wessex Water	Our intention is to exclude these costs from our assessment of financeability to protect customers from the potential impact of this. We accept our approach for the draft determination also removed costs which are funded through allowed revenue.	allowance in our assessment of financeability on the basis of the notional capital structure.
The differing accounting treatment and the different approach companies have adopted to recover infrastructure renewal expenditure distorts adjusted interest cover ratios and makes comparisons between companies unreliable.	Bristol Water, Northumbrian Water	It is for companies to determine their accounting policies and their approaches to recovering costs through PAYG rates. We acknowledge this creates differences in reported financial ratios and that stakeholders value the ability to make comparisons between companies.	Change – for the final determination we state adjusted interest cover excluding the capital portion of infrastructure renewals expenditure.

General issues raised in representations			
Issue raised	**Who raised the issue**	**Our assessment and reasons**	**Changes to our proposals?**
Ofwat should undertake an analysis of downside scenarios or ‘stress testing’ for the assessment of financeability or financial resilience. In Thames Water’s view this is relevant to an assessment of whether Ofwat has satisfied both its financing duty and its resilience duty.	Thames Water, Affinity Water	We require companies to undertake stress testing of their plans in providing Board assurance of financeability and financial ratios. We take this into account in our assessment of financeability on the basis of the notional capital structure, in particular the headroom in financial ratios in the business plan versus a minimum investment grade credit rating.	Change – we include an assessment of headroom for the notional company to an adjusted interest cover ratio of 1 times against outcome delivery underperformance and totex overspend.

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

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