

WSX-R05 – Financeability and financial resilience

Response to
Ofwat's PR24 draft
determination



Wessex Water
YTL GROUP

FOR YOU. FOR LIFE.

Representation reference: **WSX-R05**

Representation title: **Financeability and financial resilience**

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1. Executive summary

The analysis presented here demonstrates the company's financial resilience on both a notional and actual basis; thorough to 2030, and in the long term. Specifically, we show that under current rating methodologies we can maintain the target credit rating (Baa1 / BBB+) under both the notional and our actual structure. As per our initial business plan, we have assumed no dividend distributions throughout 2025-30 and no equity injection for our actual structure.

We also present our case that the specification of the notional company has diverged from what the evidence shows. Therefore, we also set out our view of a notional company with a notional gearing of 60%, again undertaking the established assessment of maintaining the target credit rating. As with the above, our analysis shows that under this structure we can maintain the target credit rating.

The results of our analysis are set out in Table 1 below. In all cases there is a deterioration in the metrics over time. Given this, and the scale of investment, it is required to raise equity. Therefore, the table also indicates the levels of equity investment required under each scenario, these specifications can maintain the current credit rating at the target level of gearing.

Table 1 – Notional & Actual company credit metrics 2025-30, using DD cost of capital

	DD Notional	WSX Notional	WSX Actual
Unmitigated AICR (avg 25-30)	1.5x	1.4x	1.4x
Unmitigated Gearing (avg 25-30)	63%	67%	75%
Target gearing	55%	60%	-
Equity Injection (total 25-30)	£880m*	£760m	£330m*
Mitigated AICR (avg 25-30)	1.7x	1.6x	1.5x
Mitigated Gearing (avg 25-30)	56%	61%	72%

*Specific equity injection plus dividends foregone by reducing dividend yield to below 4%

In all the cases set out above, significant mitigations are required in the form of equity being attracted. Therefore, it is critical that the final determination is sufficiently set as to attract this equity. As a minimum this requires: the cost of equity to be set at an appropriate level; and the balance of risk and return to be appropriately calibrated at a P50 level of performance.

Given the scale of investment needed at PR24, "investability" needs additional consideration, and indeed more than in any previous price control. Specifically, further examination is needed to expand the financeability framework and ensure the sector, and individual companies, represent an investable proposition. On this basis, we have given considerable thought to what "investable" means and developed a framework for testing this. This is consistent with the principles of how an investment appraisal would be undertaken. A summary of this framework, and our assessment of the draft determination against it is presented below and detailed in section 4.

Investability Criteria	Assessment of Draft Determination
Has the CAPM been calibrated taking into account the balance of the evidence?	Although the published analysis highlights the possibility of upward pressure (on RfR and impact of capital intensity on beta), this isn't reflected in the DD, even in the top end of the presented ranges. It is clear that, as set out, the CAPM methodology does not sufficiently consider the balance of evidence.
Do returns from alternative asset pricing models suggest that CAPM is pricing in all systematic risk for water companies?	Alternative asset pricing models with stronger explanatory power such as the q-factor model indicate that Ofwat DD CAPM understates returns for water companies by 70-200bps.
Is the equity return available set at a level sufficiently above the cost of debt to reflect fundamental risk differentials?	Investors that commit capital into water companies as equity capital take on significantly more risk than debt investors in the same companies. The Ofwat DD CoE does not include sufficient risk premium relative to debt (inherently a much safer investment with stable, predictable cashflows) to persuade investors to commit equity capital – the differential in risk premium is not reflective of risk differentials.
Does the notional company have sufficient headroom on debt financeability over the long term?	Headroom for key projected coverage metrics such as AICR are projected to decline below target credit rating levels as more expensive new debt replaces cheaper embedded debt. This is driven by the DD CoE which is too low and corroborates that the current financial assumptions are not sustainable over the long term.

Under this framework, our assessment is that the specification of the notional company represented in the determination is not an investable proposition. To ensure that equity is attracted action needs to be taken. Specifically this requires:

- setting an appropriate cost of capital as we set out in RR01; and
- mitigating the overall balance of risk and rewards as set out in RR02.

With the recalibrated cost of capital and notional structure (notional gearing of 60% and no restriction of dividend yields) the key credit metrics set out in Table 2 show that both the notional and actual company remain financeable and investable over 2025-30.

Table 2 – Notional & Actual company credit metrics 2025-30, using our proposed cost of capital

	WSX Notional	WSX Actual
Unmitigated AICR (avg 25-30)	1.8x	1.7x
Unmitigated Gearing (avg 25-30)	65%	73%
Target gearing	60%	-
Equity Injection (total 25-30)	£580m	£340m*
Mitigated AICR (avg 25-30)	1.9x	1.8x
Mitigated Gearing (avg 25-30)	61%	70%

*Specific equity injection plus dividends foregone by reducing dividend yield to below 4%

We have also stress tested this structure following our well-established long-term viability modelling and confirm that over the long term we remain financially viable. Within the long-term viability assessment, we set out our financeability plan covering the metrics tested, trigger levels for action and mitigative action that we could undertake.

2. The Draft Determination Notional Company

We have started our assessment accepting the notional company as set out in the draft determinations. This is the basis of our submitted financial model and data tables. Under this specification we get the unmitigated gearing and AICR set out in Tables 3 and 4 below. These are as specified in Ofwat's published financial model, but also adjusting for the reprofiling of revenue within the period, which is the established methodology applied by credit rating agencies.

Table 3 – Draft determination notional company AICR calculation – pre mitigations

	2026	2027	2028	2029	2030
Pre-Interest FFO	320.1	453.2	549.5	563.8	544.4
Reg. Charges	226.8	239.1	264.0	287.8	323.1
Reprofiling	-85.8	19.8	74.1	42.8	-44.3
Interest Expense	105.8	122.9	137.7	156.9	188.4
AICR	1.69	1.58	1.53	1.49	1.41

Table 4 – Draft determination notional company gearing calculation – pre mitigations

	2026	2027	2028	2029	2030
Net Debt	2874	3255	3593	4136	5074
RCV	4888	5304	5747	6457	7494
Gearing	59%	61%	63%	64%	68%

These both show a deterioration over time, and consistent with the DD we have assumed a restriction of the dividend yield to 2% and equity injections at a 57.5% gearing trigger level, resulting in £880m injected or foregone dividends over the period. This gives the revised calculations set out in Tables 5 and 6.

Table 5 - Draft determination notional company AICR calculation – post mitigations

	2026	2027	2028	2029	2030
Pre-Interest FFO	320.1	453.2	549.5	563.8	544.4
Reg. Charges	226.8	239.1	264.0	287.8	323.1
Reprofiling	-85.8	19.8	74.1	42.8	-44.3
Interest Expense	101.3	113.9	126.3	137.6	155.5
AICR	1.77	1.71	1.67	1.69	1.71

Table 6 – Draft determination notional company gearing calculation – post mitigations

	2026	2027	2028	2029	2030
Net Debt	2690	3014	3287	3551	4121
RCV	4888	5304	5747	6457	7494
Gearing	55%	57%	57%	55%	55%

However, as we set out in section 5.1 of our representation on risk and return, we maintain that 60% is the efficient level of notional gearing. Considering this notional structure but retaining the draft determination WACC gives the credit rating metrics set out in Tables 7 and 8 pre mitigations.

Table 7 – Proposed notional company AICR calculation – pre mitigations

	2026	2027	2028	2029	2030
Pre-Interest FFO	320.1	453.2	549.5	563.8	544.4
Reg. Charges	226.8	239.1	264.0	287.8	323.1
Reprofiling	-85.8	19.8	74.1	42.8	-44.3
Interest Expense	113.9	131.0	145.8	164.9	196.2
AICR	1.57	1.48	1.45	1.41	1.35

Table 8 – Proposed determination notional company gearing calculation – pre mitigations

	2026	2027	2028	2029	2030
Net Debt	3101	3483	3820	4362	5295
RCV	4888	5304	5747	6457	7494
Gearing	63%	66%	66%	68%	71%

These metrics, specifically the AICR show a deterioration over time that is not consistent with achieving the target credit rating. Therefore, as before, we have included mitigations of equity issuance, with a similar threshold of +2.5% over notional gearing target. This results in £760m equity injected over the period. Post mitigation results are set out in Tables 9 and 10.

Table 9 – Proposed notional company AICR calculation – post mitigations

	2026	2027	2028	2029	2030
Pre-Interest FFO	320.1	453.2	549.5	563.8	544.4
Reg. Charges	226.8	239.1	264.0	287.8	323.1
Reprofiling	-85.8	19.8	74.1	42.8	-44.3
Interest Expense	109.9	123.9	133.9	149.1	170.4
AICR	1.63	1.57	1.58	1.56	1.56

Table 10 – Proposed notional company gearing calculation – post mitigations

	2026	2027	2028	2029	2030
Net Debt	2934	3307	3449	3973	4495
RCV	4888	5304	5747	6457	7494
Gearing	60%	62%	60%	62%	60%

All the post mitigation metrics presented above achieve the target level of gearing and are consistent with the Baa1/BBB+ credit rating targeted by the notional company.

3. The Actual Structure

As with our initial submission, we have modelled a complete restriction of dividends over 2025-30. This results in c.£330m of foregone dividends over the period. This mitigation results in the metrics set out in Table 11 and 12 below using the cost of capital set out in the draft determinations.

Table 11 – Actual company AICR calculation – post mitigations

	2026	2027	2028	2029	2030
Pre-Interest FFO	319.4	451.3	548.8	564.7	547.4
Reg. Charges	226.8	239.1	264.0	287.8	323.1
Reprofiling	-86.5	17.9	73.5	43.6	-41.3
Interest Expense	112.3	129.2	143.5	164.0	196.6
AICR	1.59	1.50	1.47	1.42	1.35

Table 12 – Actual company gearing calculation – post mitigations

	2026	2027	2028	2029	2030
Net Debt	3567	3867	4114	4554	5370
RCV	4888	5304	5747	6457	7494
Gearing	73.0%	72.9%	71.6%	70.5%	71.6%

These results are consistent with the company maintaining an investment grade credit rating under current rating methodologies.

4. Equity Financeability tests

In all the cases set out above, significant mitigations are required in the form of equity being attracted, either through accepting a lower dividend yield or through specific equity injections.

Therefore, it is critical that the final determination is sufficiently set as to attract equity. That is, the cost of equity is set at an appropriate level and the balance of risk and return is such that a company would expect, at a P50 level of performance to earn the allowed return.

Given the scale of investment needed at PR24, investability is a more important consideration than in any previous price control. Specifically, further examination is needed to expand the financeability framework and ensure the

sector, and individual companies represent an investable proposition. On this basis, we have given considerable thought to what “investable” means and developed the framework set out below.

In our view, an examination of investability requires an extension of existing regulatory principles in addition to new methods. It is effectively equivalent in practice to an investment appraisal. The following table summarises the principles, assessment methods, and applicability of potential tests.

Criterion	Context	Investability tests	Interpretation of results	Assessment of PR24 DDs
Properly calibrated CAPM and limitations on regulatory discretion	<p>Each CAPM parameter for setting the CoE must use appropriate methodologies.</p> <p>Downwards-bias across all parameters could result in a CAPM which is not investable.</p>	<p>Each parameter of the CAPM, as well as consideration of aiming up, should be examined to assess whether its calibration reflects the balance of the evidence.</p> <p>Where Ofwat has adopted a low estimate but not considered alternative, higher estimates and attached some weight to these estimates – this could indicate structural downwards bias.</p>	<p>KPMG’s updated CoE report assesses the CAPM evidence and finds that Ofwat’s allowed return is approximately 100 bps below the appropriate midpoint.</p> <p>Ofwat’s approach is 52bps lower than implied by a roll forward of the CMA PR19 approach.</p> <p>Ofwat has on a number of parameters (1) attached weight to flawed, downwards biased methodologies and datasets (TMR) (2) dismissed evidence which indicates its estimate could be under-stated.</p> <p>Use of regulatory discretion to introduce downwards bias can result in the sector becoming less attractive to investors.</p> <p>Moody’s recent note (<i>Ofwat’s draft determination increases sector risk</i>, 14 August 2024), which indicates that Moody’s may revise their assessment of the regulatory framework, indicates the importance of maintaining the stability, predictability, and transparency of the regulatory regime.</p>	
Cross-checking returns with other asset pricing models	<p>Alternative models may be able to provide stronger explanatory power than the CAPM and indicate different levels of systematic risk for water stocks.</p> <p>This is particularly relevant for upcoming price controls given CAPM relies on historical data which may not be reflective of what will be a fundamentally different price control.</p> <p>Ofwat has recognised this potential CAPM shortcoming in prior publications.¹</p>	<p>Multifactor models have stronger explanatory power than CAPM and can be used to cross-check CAPM-implied returns.</p> <p>A comparison of q-factor model implied returns to the CAPM as applied by Ofwat can indicate whether the regulatory framework is pricing in all relevant risks.</p>	<p>KPMG’s multifactor model analysis within the CAPM paper finds the allowed return could be increased by between 71bps and 222bps.</p> <p>The KPMG report includes an aiming up adjustment on the CAPM CoE which is partially informed by MFMs.</p> <p>However, this adjustment is conservative as it i) only considers the lower bound of the evidence, which is a significant distance from the upper bound, and ii) also accounts for other evidence. MFM evidence could suggest further aiming up may be necessary to attract investment.</p>	

¹ In the draft methodology, Ofwat noted ‘Our proposed implementation of the CAPM...is reliant on significantly backwards-looking data, particularly on TMR, where we propose to capture over 120 years of historical evidence. One implication of this approach may be an allowed return which is slow to adapt to changing market conditions. Because our objective is to set an allowed return

<p>Pricing or mitigation of all risk exposures, including asymmetric risk and limitations to risk exposure</p>	<p>Pricing of risks not captured by the CAPM (e.g. asymmetric risk or changes in forward looking risk not reflected in betas) and mitigating risks is critical to ensure the sector is attractive to investors.</p>	<p>It is necessary to consider whether net risk exposure is priced.</p> <p>Stochastic risk analysis can be used to quantify the level of risk exposure implied by the PR24 determination by simulating risk around key regulatory building blocks (Totex, ODIs etc) to determine (1) whether risks are symmetric (2) whether variance is consistent with pricing of forward-looking risk in the CAPM.</p>	<p>KPMG has completed detailed risk analysis for the median firm in the water sector which has found that the P50 position for the notional company is significantly negative and downside asymmetric. Absent significant changes to risk allocation at DDs the price control would not represent a fair bet as investors would not be able to earn the allowed return on a median- or mean- expected basis.</p> <p>Ofwat has not carried out robust risk analysis to assess whether an appropriately specified notional company (e.g. based on historical median performance levels) can expect to achieve the allowed return.</p> <p>Under the PR24 DDs, investors are exposed to significant risk without commensurate return. These risks must be mitigated or priced.</p>	
<p>Comparison to other investment opportunities including the CoD</p>	<p>Investors have multiple options when assessing where they commit capital, each with varying risk and return profiles. When deciding on capital allocation, an investor would assess the risk-return characteristics of each opportunity.</p> <p>The expected return on equity needs to be substantively above the expected return on debt of the same asset to reflect relative risk, as otherwise an investor is unlikely to be incentivised to invest equity.</p> <p>In addition, there are imperfect comparators – such as preference shares and High Yield debt (such as id- or HoldCo financings) which provide an indication of returns at different levels of the capital structure.</p>	<p>Inference analysis compares the regulatory cost of equity to the cost of equity implied by water company debt pricing using a framework grounded in academic literature.</p> <p>Where regulatory returns are below inferred required returns, this could indicate an investability challenge.</p> <p>Ofwat appears to have dismissed the use of equity and debt cross checks, but Ofgem intends to <i>“consider evidence from debt pricing and how this can be incorporated as a cross-check for price control purposes.”</i></p> <p>Consideration of debt pricing (which can be readily observed) should be a key cornerstone when assessing investability.</p>	<p>Initially, a simple comparison of debt to equity pricing indicates a delta of only 80bps for the notional company.</p> <p>Inference analysis finds that the Ofwat DD CAPM CoE is understated by approximately 150bps</p> <p>If not properly remedied, investors may consider that debt investments offer a significantly better risk and reward balance. In July 2024, South West Water (Baa1) issued a GBP bond at 6.4% - only 50bps below Ofwat’s CoE, even post a 28bps adjustment for aiming up, indicating the lack of competitiveness of Ofwat’s CoE.</p> <p>The case for investing in equity is likely to be further diminished due to the expected lack of dividends at the notional company</p>	

aligned with investors’ expectations over 2025-30, it is therefore important to cross-check our CAPM-derived estimates against estimates from alternative approaches underpinned by more recent and forward-looking data

<p>Investment characteristics such as the regulatory call option and duration of cash flows</p>	<p>The duration of cashflows impacts the return received by investors, through critical impacts on the timing and form of return.</p> <p>Traditionally, utilities have been reliable income investments however step-changes in capex and the associated reductions in dividends fundamentally change the investment profile.</p> <p>If not properly remunerated (as growth stocks would typically have higher betas) then this could limit scope to attract new equity capital.</p> <p>The regulatory call option seeks to price the implicit option available to Ofwat to ‘call’ more capital given the compulsory nature of investments.</p>	<p>Assess whether Ofwat has made explicit adjustments to its approach to price in the impact of changes in duration of cashflows and/or the regulatory call option.</p> <p>In our business plan, we developed evidence on duration of cashflows which indicated that uplifts would be required to reflect the change in investment profile, which remains relevant.</p> <p>Further, investors in regulated utilities must be prepared to commit more capital (including the risk of overspend) or risk not meeting licence or statutory obligations. Conceptually, this could be viewed as a call option in favour of the regulator for further capital, at any price.</p>	<p>It is clear that dividends are to reduce given the scale of investment which, all else equal, will increase cash flow duration. This cost is not priced into the DDs.</p> <p>It is likely that investors who seek yield may consider sectors other than UK Water where there is an assessment of more reliable dividend streams.</p> <p>The regulatory ‘call option’ has technically always been the case. However, the amount of capital that might be called on was significantly smaller and could be raised from retained earnings and new debt. This is no longer the case in AMP8 without creating unsustainable gearing, creating value in the call option. Investors should therefore expect that this call option is priced.</p>	
<p>Sufficient headroom in near- and long-term debt financeability</p>	<p>Debt financeability is relevant for equity, particularly when the lack of ratings headroom – even on a base case basis – means plausible levels of underperformance or just one shock event could result in pressure on ratios.</p> <p>Ofwat’s proposals elsewhere in the PR24 DDs (and in licence modifications in 2022) could then result in dividend lock ups, further reducing the attractiveness of the sector.</p>	<p>Financeability headroom can be assessed using established methods including assessment of headroom to rating thresholds at the Baa1 level and the ability to maintain an investment grade rating under several plausible downside scenarios (which are formulated based on the risk analysis above).</p> <p>It is important to consider a wide range of both stress testing and reverse stress-testing, as well as scenarios where equity financing is unavailable given the scale of the investability challenge.</p> <p>Existing and potential equity investors will expect to see a plausible level of headroom that does not immediately transfer debt risk to equity.</p>	<p>Under the current proposals, the notional company exhibits limited headroom to the requisite rating thresholds even when geared at 55%, which we do not consider an appropriate gearing level. Pressures are caused predominantly by low interest cover ratios and the scale of risk implied by the PR24 DD risk allocation.</p> <p>Financeability challenges are likely to not only persist beyond AMP8 but intensify. It is likely that further equity will be required in AMPs 9-11 given the size of the capex programme, and cheaper embedded debt issued up to and including AMP7 will gradually mature – to be replaced by more expensive new debt, which will exert pressure on coverage metrics such as AICR.</p> <p>Ofwat’s financial assumptions are consequently not sustainable over the long term. The lack of long-term headroom reinforces the scale of challenge facing the sector, translating into the need for the sector to be sufficiently attractive.</p> <p>Under the current proposals, equity investors are likely to see the duality of i) lock up risk and ii) the risk that further equity will be needed in short order as unattractive given the very limited rating headroom.</p>	

As shown these tests show that the package set out in the draft determination, as it currently stands, is not investable.

To ensure that equity is attracted action needs to be taken. Specifically:

- Setting an appropriate cost of capital as we set out in WSX-R01
- Mitigating the overall balance of risk and rewards as set out in WSX-R02

This sets out a cost of equity of 6.3% CPIH real, and a balanced package of risk and reward.

5. Our proposed notional company

With our proposal, both cost of capital and notional structure, we can then undertake the standard financeability assessment. The results are set out in Tables 13 to 16 below covering pre and post similar mitigations set out in Table 2.

Table 13 – Proposed notional company under our proposals AICR calculation – pre mitigations

	2026	2027	2028	2029	2030
Pre-Interest FFO	324.0	458.2	558.2	571.4	552.0
Reg. Charges	188.0	205.3	224.2	249.2	285.8
Reprofiling	-73.8	25.0	77.1	36.1	-61.7
Interest Expense	111.9	129.7	144.8	164.9	200.3
AICR	1.88	1.76	1.77	1.74	1.64

Table 14 – Proposed notional company under our proposals gearing calculation – pre mitigations

	2026	2027	2028	2029	2030
Net Debt	3098	3476	3807	4345	5280
RCV	4939	5405	5899	6660	7748
Gearing	63%	64%	65%	65%	68%

Table 15 – Proposed notional company under our proposals AICR calculation – post mitigations

	2026	2027	2028	2029	2030
Pre-Interest FFO	324.0	458.2	558.2	571.4	552.0
Reg. Charges	188.0	205.3	224.2	249.2	285.8
Reprofiling	-73.8	25.0	77.1	36.1	-61.7
Interest Expense	108.0	122.6	137.3	151.2	173.7
AICR	1.94	1.86	1.87	1.89	1.89

Table 16 – Proposed notional company under our proposals gearing calculation – post mitigations

	2026	2027	2028	2029	2030
Net Debt	2969	3339	3662	4003	4660
RCV	4939	5405	5899	6660	7748
Gearing	60%	62%	62%	60%	60%

These metrics, at the target gearing are consistent with the targeted Baa1/BBB+ credit rating while also being part of an investable overall package.

6. Our proposal and the actual company

As with our initial submission, we have modelled a complete restriction of dividends over 2025-30. This results in c£340m foregone dividends over the period, this mitigation results in the metrics set out in Table 17 and 18 below using the cost of capital set out in the draft determinations.

Table 17 – Actual company AICR calculation, under our proposals – post mitigations

	2026	2027	2028	2029	2030
Pre-Interest FFO	324.0	458.2	558.2	571.4	552.0
Reg. Charges	188.0	205.3	224.2	249.2	285.8
Reprofiling	-73.8	25.0	77.1	36.1	-61.7
Interest Expense	112.2	128.8	142.6	162.7	194.7
AICR	1.87	1.77	1.80	1.76	1.68

Table 18 – Actual company gearing calculation, under our proposals – post mitigations

	2026	2027	2028	2029	2030
Net Debt	3564	3858	4095	4526	5334
RCV	4939	5405	5899	6660	7748
Gearing	72.2%	71.4%	69.4%	68.0%	68.8%

These metrics are consistent with the targeted Baa1/BBB+ credit rating while also being part of an investable overall package.

7. Potential change in rating methodology

Moody's has identified that the DD increases the sector's business risk. It notes that a change in its view of the stability and supportiveness of the regime or companies' ability to recover costs and earn a fair return could mean that the thresholds required to maintain investment grade credit rating may be tightened. Moody's estimates a decrease in the gearing threshold for Baa1 to 68% and an increase in the AICR threshold to 1.6x.

If this is the case, the notional company assessments would result in the same conclusions.

However, this alongside other risks beyond our control (for example, a new government undertaking to change regulation), provides further justification to revisit the balance of risk and reward in the package and makes it more essential to expand the financeability tests to cover investability.

If this is the case, then more equity would be required for the actual company assessments but, provided a cost of equity is set at the level that would attract investment, the Company would remain financeable.

8. Long term financial resilience

The same assessment that underpinned our long-term viability statement published as part of our annual performance report² using our draft determination response as the central case has been undertaken.

When assessing financial viability over a longer period, Directors considered:

1. the financial and operational impact if the risks identified in the corporate risk register were to occur,
2. the impact on WWSL if risks related to the wider group were to occur,
3. the wider economic and regulatory environment, and
4. the impact of any other foreseeable risk.

This ensures that all operational, financial, and regulatory risks and liabilities are fully considered. The assumptions used in stress testing for this viability statement are consistent with this wider risk assessment set out in the Company's published accounts.³

The Corporate risk register is updated on an on-going basis and reviewed by the Company's risk management group and Audit and Risk Committee every six months to ensure it is a true reflection of the circumstances of the Company. The potential financial impacts of the principal risks contained in the corporate risk register are summarised in Table 19 below.

² [annual-performance-report-2023-24.pdf \(wessexwater.co.uk\)](#)

³ [Microsoft Word - WWSL Annual Report and Accounts FY2023.docx \(wessexwater.co.uk\)](#)

Table 19 – Principal risks

Principal risk	Financial Shocks
Reputation & positioning	Decreased collections
Political action	Unfunded obligations
Regulatory action	Regulatory fine
Environment & public value	Unfunded obligations
Climate volatility	Increased cost, reduced performance
Environmental harm	Short term cost increases, reduced performance, regulatory fines
Resources and skills	Short term cost shocks, increase in costs over time
Supply chain resilience	Short or long term increase in costs
Health and safety	Short term cost increases, reduced performance, regulatory fines
Technology resilience	Short term cost increases, reduced performance, regulatory fines
Supply of unfit or insufficient water	Short term cost increases, reduced performance, regulatory fines
Financial viability	Increased cost of debt
Uninformed action	Increase in costs, reduced performance
Governance and ethics	<i>Regulatory fines</i>

The Table 20 summarises the individual financial shocks we have considered and modelled, informed by considering the potential financial impacts outlined above. The levels of financial impact are set having considered historical precedent (both on company performance, that of its peers or analogous risks that have occurred in other sectors), independent expert forecasts (for instance forecast ranges published by the Bank of England), and where appropriate guidance within the final PR24 methodology.

Table 20 – Summary of financial shocks

Area	Stress test
Inflation	<ol style="list-style-type: none"> 1. Sustained lower (up to 2%) than forecast CPIH, reducing allowed revenues and RCV growth, 2. Short-term deflationary scenario with negative CPIH (-1%) over two years, reducing allowed revenues and RCV growth, 3. Short-term higher (up to 8%) than forecast CPIH, increasing costs, and 4. Short-term increase in the wedge (up to 2%) between RPI and CPIH on top of current forecasts, increasing accruals on debt without increases in revenues.
Revenues	<ol style="list-style-type: none"> 1. Sustained lower demand (up to 8%) for both household and commercial customers, reducing revenues collected, 2. Short-term shock to lower demand (up to 10%) reducing revenues recovered, 3. Lower allowed revenues (3% of RoRE ODI penalties) through poor operational performance, and 4. Decreased collections and an increase in customers' inability or refusal to pay, this reduces cash into the business and increases bad debt charge within modelled operational costs.
Capital expenditure	<ol style="list-style-type: none"> 1. Short-term and sustained input price pressures above (up to 1.5%) CPIH, increasing capital costs, 2. Short-term increases (up to £50m) to capital expenditure because of sudden asset failures/environmental incidents/loss of suppliers, 3. Sustained increase (up to 10%) in capital maintenance expenditure, and 4. Significant unfunded obligations increasing (up to £100m) capital expenditure.
Operational expenditure	<ol style="list-style-type: none"> 1. Short-term and sustained input price pressures above (up to 3%) CPIH, increasing operational expenditure 2. Short-term increases (up to £10m) to operational expenditure because of sudden asset failures/environmental incidents/loss of suppliers 3. Sustained increase (up to £7m p/a) in operational expenditure 4. Significant regulatory fines (up to 6% of turnover)
Financing	<ol style="list-style-type: none"> 1. Credit rating downgrade, resulting in higher (up to 0.5%) costs of raising new debt, 2. Sustained increase (up to 2%) in cost of raising new debt above the forecast benchmark indices, and 3. Poor market performance of pension assets resulting in an increase (up to £150m) of our pension deficit.

Scenarios were then developed ensuring that the analysis correctly identified linked and compounded risks and were sensitivity tested with reasonable, plausible, and extreme levels of severity.

Table 21 – Scenario development

Scenario	Details and sensitivity testing
Wastewater incident	This might include a major pollution incident or the widespread distribution of unfit water, either driven by catastrophic asset failure, extreme weather events or malicious damage. The base scenarios include the capital costs of rectification and then increases severity by progressively including risks of fines, penalties from regulatory delivery incentives, customer compensation payments and at the most extreme the withholding of customer bill payments.
Water supply incident	
Simultaneous water and wastewater incidents	As above but assumes incidents occur concurrently.
Totex overspend	Sustained input price pressures over inflation and a sustained overspend on capital maintenance with more severe scenarios including isolated asset failures
Macroeconomy	This scenario assumes a sustained economic downturn in the UK that increases company input prices and reduces productivity resulting in sustained overspends of regulatory cost allowances while depressing indices of consumer prices and reducing company sales. An accompanying credit squeeze means that the costs of new finance increase.
Combined operational and macroeconomic shock	Assumes operational failure coincides with higher input costs resulting in consistent overspends against regulatory allowances. Alongside this depressed consumer price indices reduce sales and regulatory value. Sensitivity testing increases the severity by assuming demand and sales volumes also decrease and the company suffers higher interest costs through a credit rating downgrade.
New unfunded obligations	This scenario assumes that government or regulators impose new obligations on the Company that create additional costs and diverts management focus leading to operational failure. These are modelled individually and then alongside operational or macroeconomic shocks to fully test the resilience of the company.
Cyber attack	A serious cyber attack resulting in additional expenditure and in more severe cases associated environmental or supply incidents.
Climate change	Ongoing climate change causes more uncertain weather, dryer summers and wetter winters lead to additional operational and maintenance expenditure. This was modelled individually and alongside operational and macroeconomic shocks to fully test the resilience of the company.

The individual shocks, scenarios, and levels of sensitivity considered within the financial viability assessment are reviewed and agreed by senior management across the finance, risk and investment, and economic regulation teams. Our full approach to risk identification, management and mitigation is described in our

published Annual Report and Accounts. These are then presented to the Company's Audit and Risk Committee for review.

In total the Company modelled 36 scenarios, including those outlined in the PR24 final methodology, the most severe of which consider multiple concurrent and linked risks.

The Table 22 highlights which shocks were active and their frequency:

Table 22 – Detailed scenario specifications

Scenario	Financial shocks					
	Inflation	Revenue	Opex	Capex	Fines	Financing
Operational incidents (similar for water / waste and combined)	none	ODI penalties throughout	1:3 years shock	1:3 years shock	1:6 years regulatory enforcement	Credit rating downgrade
Totex Overspend	none	none	1:3 years shock Sustained maintenance overspend	1:3 years shock Sustained maintenance overspend	none	Credit rating downgrade
Macroeconomy	Lower inflation Higher RPI/CPIH wedge	Lower demand	Input price mismatch	Input price mismatch	none	Credit rating downgrade Increased cost of debt
Combined operational and macroeconomic shock	Lower inflation	ODI penalties throughout	1:3 years shock Input price mismatch	1:3 years shock Input price mismatch	none	Credit rating downgrade
New unfunded obligations	Lower inflation	none	Unfunded obligations over 2025-30	Unfunded obligations over 2025-30	none	Credit rating downgrade
Cyber attack	none	ODI penalties	1:10 year shock	1:10 year shock	none	none
Climate change	Lower inflation	none	Sustained increase	One off upsizing of assets	none	Credit rating downgrade

When considering long-term financial viability the Directors primarily considered the ability of the Company to retain credit metrics consistent with an investment grade credit rating, as this would continue to grant access to the debt and equity markets for the Company to finance its functions.

The Directors note the PR19 final determination significantly reduced the headroom available which, coupled with extreme global pressures on costs, results in a challenging short-term position. This is further compounded in the medium term by the significant investment pressures over the next price control period, with expenditure expected to be circa twice that previously seen. Looking forward this creates significant pressure on gearing that even in the base case threatens the ability to maintain an investment grade credit rating and avoid breaching the financial covenants on our debt facilities.

If, as expected, the increased scale of investment continues longer term, there is sustained downwards pressure on selected debt covenants (EBITDA / Interest). This may pose an issue towards the end of the

assessed period. However, we believe that through constructive engagement with lenders this will be resolved. In these cases we maintain the key credit rating metrics (AICR / PMICR and gearing) consistent with investment grade credit rating and have a track record of positive engagement and strong performance that could improve future ratios.

In many of these scenarios we see further pressure on key credit rating metrics (gearing and interest covers) that may threaten the company's investment grade credit rating, and cause breaches to the financial covenants on our debt facilities. This is of particular note where there is sustained low inflation and significant totex overspends, and on interest covers with sudden reductions in revenue or significant fines.

Multiple control measures are in place to mitigate or prevent impacts. These include:

1. Insurance against significant one-off shocks such as flooding

This will help the Company recover some of the totex incurred in specific shocks where they are driven by insurable external risks.

2. The suite of regulatory reconciliation mechanisms in place to allocate risk between the company and customers

These mechanisms will help mitigate the impact of reduced demand on revenues through the RFI and help mitigate the impact of additional expenditure through the totex reconciliation models. Further protections to the RCV revenues exist in the cost of debt indexation mechanism.

3. Reducing expenditure with limited short or medium-term benefits

This alongside restriction of executive pay can help offset other increases in totex. However, given the scale and uncertainty of the upcoming capital programme we will not have the ability to completely offset increases in costs, and these levers will have lower impact than in previous assessments.

It is imperative to note that if this restriction on expenditure is required beyond the short term this will place more stress on the business and reduce its long-term resilience.

4. Restricting dividends

The Company has always committed to ensuring it maintains an investment grade credit rating and operates a flexible dividend policy that will help ensure this. The Directors note that dividends can be restricted before the new cash lock up clause in the licence comes into force if there is foresight of the risks.

The table below sets out the pre and post mitigation impact on gearing (target <75%), and interest covers (Moody's AICR target >1.1x, PMICR target >1.1x and EBITDA / Interest target > 2.75x) for the most severe scenarios in each area. Red represents sustained breaches of a level consistent with investment grade credit rating, amber represents short term breaches that we would expect rating agencies to look through (as evidenced currently with the high inflation & RPI/CPIH wedge shock) and green represents limited issues.

Table 23 – Long term stress test results

Scenario	Pre Mitigation		Post Mitigation	
	Gearing	Interest Covers	Gearing	Interest Covers
Wastewater incident	Red	Red	Green	Green
Water supply incident	Red	Red	Green	Green
Simultaneous water and wastewater incidents	Red	Yellow	Green	Green
Macroeconomy	Red	Yellow	Yellow	Green
Combined operational and macroeconomic shock	Red	Yellow	Yellow	Green
New unfunded obligations	Red	Yellow	Green	Green
Cyber attacked	Yellow	Yellow	Green	Green
Climate change	Yellow	Yellow	Green	Green

The Directors note that in many cases the four mitigations outlined were sufficient to restrict the breaches to short-term failures relating to specific shocks, where further action would have limited immediate impact. The Directors considered that in these cases the impact would not affect the underlying viability of the Company as credit rating agencies focus more on the overall trends and sustained exceedance of metrics.

Where there are still sustained breaches then this is resolved through equity issuance in the next five years of c£0.6bn, with further requirements towards the end of the assessment period if amendments aren't made in subsequent regulatory determinations. We have a long-term shareholder who considers their stewardship in perpetuity and who stands ready to invest into Wessex Water, for a fair return.

The Directors also note the further protections in the regulatory model (such as interim determinations, or subsequent price determinations recognising a material shift in the balance of risk), which in many of these scenarios, would allow turnover to be adjusted upwards in the event of a substantial adverse effect on the financial position of the Company.

Following these assessments, the Directors confirm that they have a reasonable expectation that the Company will be able to continue in operation and meet its liabilities as they fall due up to 31 March 2035.

In making this statement the Directors have made the following reasoned and reasonable assumptions:

- that the size of the investment programme post-2025 will be consistent with the company's submitted PR24 draft determination response;
- the availability of finance capital;
- that Ofwat will continue to perform its statutory duty to ensure that the Company can finance the proper carrying out of its statutory functions; and
- the Company has an active and long-term shareholder and is committed to long-term stewardship and investment for a fair return.

Annex 1 – EI report on need for a robust approach to financeability

MARCH 2024



THE NEED FOR A ROBUST APPROACH TO FINANCEABILITY

Report for Wessex Water

Commercially confidential

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The background features a dark blue field with several overlapping geometric shapes. A large white triangle points from the top-left towards the center. A purple triangle points downwards from the top-right. Two green triangles, one light and one dark, overlap at the bottom. A thin white line runs diagonally from the top-right towards the center.

EXECUTIVE SUMMARY

FINANCEABILITY TESTING IS A CRITICAL CROSS-CHECK FOR REVENUE ALLOWANCES AND WILL BE EVEN MORE IMPORTANT AT PR24.

- Financeability testing is critical for ensuring that regulated companies can deliver the level of service that their customers require. It is an essential way for regulators to meet their statutory duties to enable companies to finance their functions.
- Although financeability assessment does not determine the values of the building blocks of allowed revenue, it is a vital cross-check in ensuring that revenue allowances are sufficient to maintain firms' financial position and enable companies to recover efficiently incurred expenditure.
- Getting financeability right at PR24 will be especially important due to:
 - a significant increase in enhancement expenditure that will require the sector to be able to attract new debt and equity investment;
 - a reduction in the efficient notional company's level of gearing, from 60% to 55% (which follows a previous reduction at PR19);
 - the decision to hold the efficient notional company's level of gearing constant at 55% across the price control (rather than allowing it to rise), which implies the need for additional equity injections.

Significant increase in enhancement expenditure

Companies' PR24 business plans include a tripling of enhancement expenditure across the sector. This will require the sector to attract new debt and equity investment.

Reduction in notional gearing

Ofwat will reduce the efficient notional company's level of gearing by five percentage points, to 55% (from 60% at PR19). This follows a previous reduction at PR19 from the PR14 level of 62.5%

Notional gearing level held constant across price control

Ofwat will hold the notional company's level of gearing constant across the price control. Previously, the level of gearing was allowed to increase as the notional company used debt to fund new investments.

EVEN SMALL ERRORS IN THE ASSESSMENT OF FINANCEABILITY CAN LEAD TO MATERIAL FUNDING SHORTFALLS.

- Any errors in the assessment of financeability can ultimately lead to a 'cycle of underfunding', to the detriment of both firms and consumers. This is illustrated in the diagram below. If the regulator fails to allow sufficient revenue, even efficient firms will struggle to achieve the financial ratios needed for target credit ratings. They will thus face a choice: suffer falling credit ratings or decrease spending in other areas to compensate for the reduction in allowed revenue. Reducing expenditure within the revenue limits will falsely indicate that the notional firm is financeable, further magnifying the issue for the next cycle of funding.



- The cyclical nature of this issue means that it is of utmost importance to avoid any errors when assessing financeability, as problems will otherwise accumulate over successive price controls. **If financeability testing is inaccurate, even efficient firms will be unable to finance their functions, which will ultimately result in the deterioration of services provided to customers.**

OFWAT, IN LINE WITH OTHER REGULATORS, TYPICALLY INCLUDES A FINANCEABILITY ASSESSMENT AS PART OF ITS PRICE DETERMINATIONS.

- Ofwat's financeability assessment involves assessing the adequacy of the notional firm's financial headroom by:
 - Taking revenue allowances calculated using a building block approach to estimate efficient costs.
 - Using a financial model to predict the notional firm's cash flows.
 - Testing whether the implied financial headroom is consistent with the target credit rating (BBB+/Baa1), based loosely on the credit metrics used by ratings agencies.
- An assessment of this type is necessary, but not sufficient, to determine the overall financeability of a regulated company. While it focuses on financeability from a debt perspective over the course of the next price control, a more comprehensive assessment needs to address gaps in this approach, especially in relation to the long-term and financeability from an equity perspective.

A comprehensive assessment of financeability should...



...test the accuracy of revenue allowances for the next price control, which are calculated based on a building block estimate of efficient costs.



...safeguard financeability in the long term by ensuring that pressure for lower bills in the short term does not lead to problems building up in the long term.



...ensure the notional firm is financeable from a debt perspective.



...ensure the notional firm is financeable from an equity perspective.

TWO FURTHER ISSUES MEAN THAT THERE IS A RISK OF ERRORS THAT WILL EMBED THE CYCLE OF UNDERFUNDING.

RISK OF ERRORS IN THE ASSESSMENT OF EFFICIENT COSTS AND CHARACTERISATION OF THE NOTIONAL COMPANY

A reliable view of efficient costs, and the efficient capital structure, is critical for assessing the notional firm's financeability. These are both unobservable and therefore inherently uncertain in practice. A robust approach is required to deal with this uncertainty, otherwise it will lead to errors in the analysis of financeability.

When reviewing evidence in relation to the level of efficient costs and the efficient capital structure, there are four errors that are liable to result in an inaccurate view.

- Failing to take a balanced approach to evidence.
- Lacking a robust approach to uncertainty.
- Lacking internal consistency across the price control.
- Lacking clarity over the level of service that is funded by efficient costs.

THE NEED TO PAY CLOSE ATTENTION TO THE DETAIL OF RATINGS AGENCIES' APPROACHES

Even if it is not possible to replicate ratings agency assessments exactly, this should not lead to circumstances in which the approach to analysing debt financeability deviates so significantly from ratings agency approaches that it would reach different conclusions about the notional company's credit rating. It is therefore necessary to pay close attention to the detail of ratings agencies' approaches.

Under ratings agencies' methodologies, the adjusted interest cover ratio (AICR) is a key determinant of credit ratings. This measures the ratio of cash flows to interest costs. In practice, ratings agencies deduct surplus PAYG revenue when calculating AICR, meaning that credit ratings cannot be improved by increasing short-term cash at the expense of the long term.

In addition, we understand that ratings agencies pay close attention to trends in credit metrics over the course of price controls, as well as the average level. The approach to financeability assessment should reflect this.

WE USE OUR FINANCIAL MODEL, WHICH REPLICATES THE APPROACH USED BY CREDIT RATING AGENCIES, TO DEMONSTRATE THE SIGNIFICANT IMPACT THAT EVEN SMALL ERRORS IN THE FINANCEABILITY ASSESSMENT CAN HAVE.

Reflecting these challenges, we have analysed the scope for inaccuracies in financeability assessment by modelling the potential impact of five errors:

- **Mischaracterising the notional company by setting its gearing below the efficient level**, in this case setting notional gearing at 55% against an efficient level of 60%.
- **Underestimating efficient costs by applying overly optimistic assumptions about the potential scale of on-going productivity gains** (frontier shift), in this case assuming gains of 1% p.a. are achievable.
- **Inaccurately estimating debt costs**, in this case allowing for a 3.28% cost of new debt rather than 3.83%, 0.1% issuance/liquidity costs rather than 0.25%, and 17% share of new debt rather than 30%.
- **Underestimating efficient costs by inadequately reflecting the level of equity risk**, in this case assuming a cost of equity of 4.14% rather than 6.25%.
- **Mischaracterising ratings agency approaches to calculating AICR and manipulating PAYG rates to ameliorate near-term revenue shortfalls**. In this case, we have modelled the impact in AMP9 of manipulating PAYG rates to offset the impact on revenue allowances of the above errors at PR24.

Table: Errors in financeability analysis included in modelling

Error	Modelled value	True value
Notional gearing below efficient level	55% gearing	60% gearing
Optimistic frontier shift assumption	1% p.a. frontier shift	0% p.a. frontier shift
Inaccurate estimation of debt costs	3.28% cost of new debt, 0.1% issuance, 17% new debt share	3.83% cost of new debt, 0.25% issuance, 30% new debt share
Inadequate reflection of equity risk	4.14% cost of equity	6.25% cost of equity
Manipulation of PAYG rates	AICR includes surplus PAYG	AICR subtracts surplus PAYG

Our methodology involves the following steps:

- We use our financial model to calculate the implied AICR for the notional firm, based on the modelled values in the table above.
- We then estimate what the notional firm's true AICR will be if this characterisation of the notional firm is inaccurate and it: (i) has a higher efficient level of gearing than 55%; (ii) cannot achieve productivity gains of 1% per annum; (iii) has higher debt costs; and (iv) is exposed to higher equity risk.
- We then assess financeability by comparing AICR with the levels that Moody's and Fitch require for the target credit rating (1.50x and 1.40x respectively) and calculate the value of any revenue shortfall, based on the uplift needed for the notional firm's AICR to meet the level required for the target credit rating.

THE POTENTIAL IMPACT OF INACCURATE FINANCEABILITY ASSESSMENT IS SIGNIFICANT. THE ERRORS WE HAVE ANALYSED WOULD MEAN REVENUE SHORTFALLS EQUIVALENT TO HUNDREDS OF MILLIONS OF POUNDS.

- The adjacent table summarises our analysis of the potential for errors in financeability testing.
 - The errors we have analysed would reduce financial headroom at PR24 by amounts ranging from £38m to £225m.**
 - In all cases, financeability analysis would wrongly suggest the notional firm is financeable** and fail to identify revenue shortfalls over AMP8 ranging from £6m to £193m.
 - The cumulative impact of the four errors is significant and would mean that revenue allowances were **£373m less than required to maintain the target credit rating over AMP8.**
- If, contrary to ratings agency methodologies, PAYG rates were manipulated to cover this revenue shortfall at PR24, this would store up longer-term problems. **Under appropriately defined metrics, a revenue shortfall over AMP8 of £362m would remain. By AMP9 the notional company would be facing a prospective revenue shortfall of £696m.**
- When revenue shortfalls arise, firms face painful trade-offs. To maintain a given credit rating (and its associated financial ratios), a firm will need to match shortfalls in its allowances with a reduction in spending. If this does not occur, firms' credit ratings will be downgraded.

Table: Summary of analysis of errors in financeability testing

Error	Implied AICR (2029-30)	True AICR* (2029-30)	Impact on financial headroom	Revenue shortfall
Notional gearing set below efficient level	1.43	1.36	£-60m	£-28m
Optimistic frontier shift assumption	1.43	1.36	£-38m	£-6m
Inaccurate estimation of debt costs	1.43	1.32	£-72m	£-40m
Inadequate reflection of equity risk	1.43	1.10	£-225m	£-193m
Cumulative impact	1.43	0.86	£-405m	£-373m
Use of short-term fixes	1.50	0.88	£-405m	£-362m AMP8 £-696m AMP9

Note: revenue shortfall is additional revenue needed to return a notional firm to an AICR of 1.50 and thus achieve the target credit rating. In the case of inadequate reflection of equity risk, an additional adjustment to AICR is applied to reflect differences between the assumed and true costs of equity.

Inaccuracies in financeability assessments may lead to firms forgoing crucial investment in long-term capital projects, to the detriment of customers. A revenue shortfall over AMP8 of £373m equates to more than 10% of Wessex's planned capital investment of £3,500m. This is of similar scale to, or larger than, several individual components of Wessex's capital programme, such as bioresources and IED.



THE NEED FOR A ROBUST APPROACH TO FINANCEABILITY

REGULATED COMPANIES MUST BE ABLE TO ATTRACT AND RETAIN THE INVESTMENT NEEDED TO FINANCE THEIR FUNCTIONS.

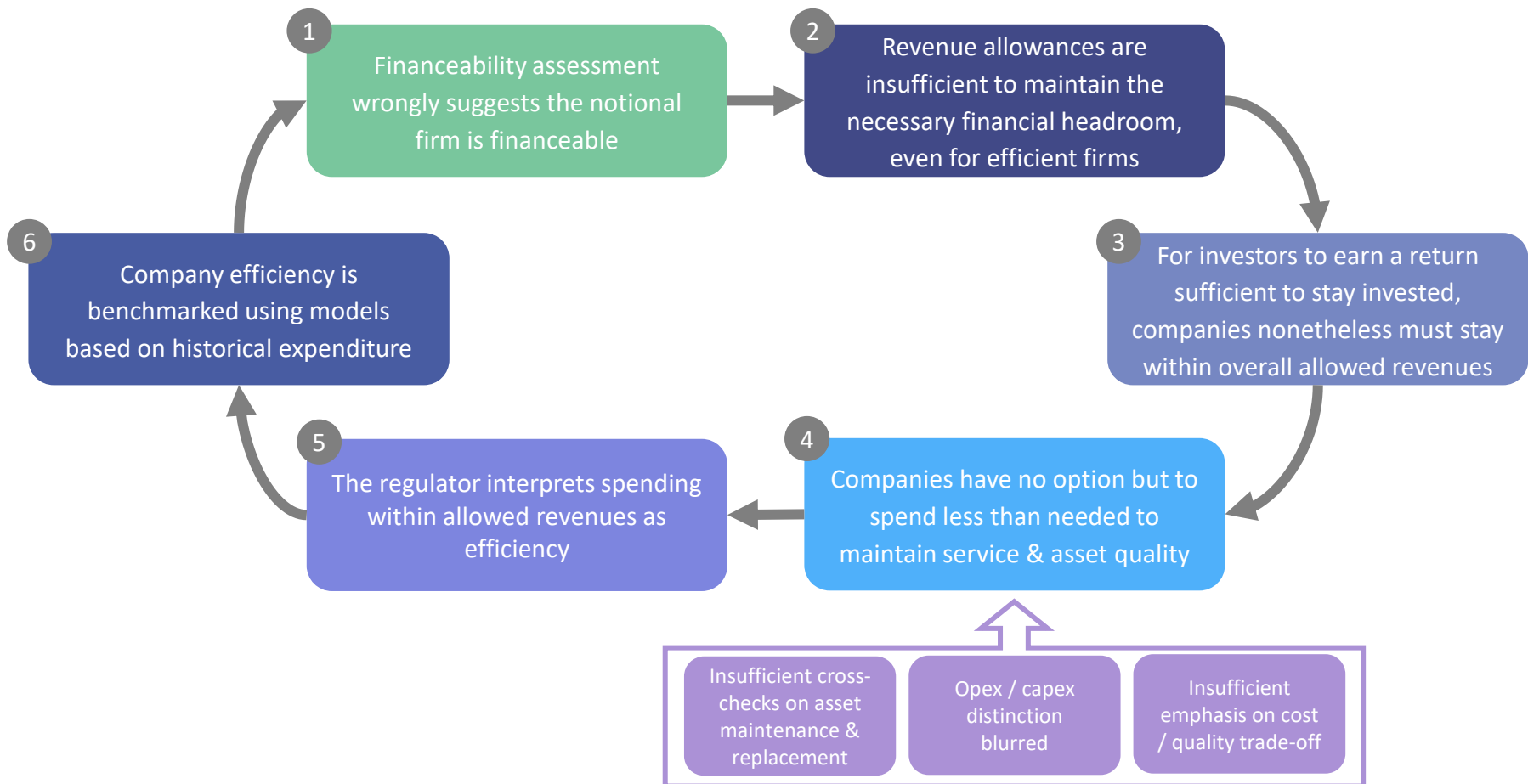
- It is vital for regulated companies to be able to attract and retain the investment required to finance their functions. This investment enables the water industry in England and Wales to meet the needs of customers, and achieve environmental and societal goals, both over the near- and long-term.
- Consistent with this, Ofwat has a primary duty to ensure that water companies can finance the proper carrying out of their statutory functions. This is held alongside, and is intimately related to, other duties that require Ofwat to ensure that customers do not pay for company inefficiency.
- Ofwat (in line with other sectoral regulators) interprets its financeability duty as applying to a notional (hypothetically efficient) company operating under a notional capital structure.*
- At PR24, Ofwat requires company Boards to provide assurance that their business plans are financeable on the basis of the notional structure. Specifically, Ofwat explains that company Boards are to give assurance that:
 - *“the business plan is financeable on the basis of the notional capital structure. This assurance should take account of all components of the business plan, including our early view on the allowed return on capital for PR24.”*
 - And that, again on a notional basis, plans are: *“consistent with maintaining target credit ratings at least two notches above the minimum of the investment grade”* (which Ofwat defines as being BBB+/Baa1).**

* *‘Our final methodology for PR24.’ Ofwat (December 2022); p.115.*

** *‘Our final methodology for PR24.’ Ofwat (December 2022); Table 10.2.*

GETTING THE ASSESSMENT OF FINANCEABILITY WRONG IS LIABLE TO RESULT IN A 'CYCLE OF UNDERFUNDING', WITH REVENUE SHORTFALLS EXACERBATED EACH PRICE CONTROL.

The nature of economic regulation means that errors in the assessment of financeability in one price control are carried forward into future price controls, resulting in a 'cycle of underfunding'. We explain the stages of this cycle in further detail in the following slide.



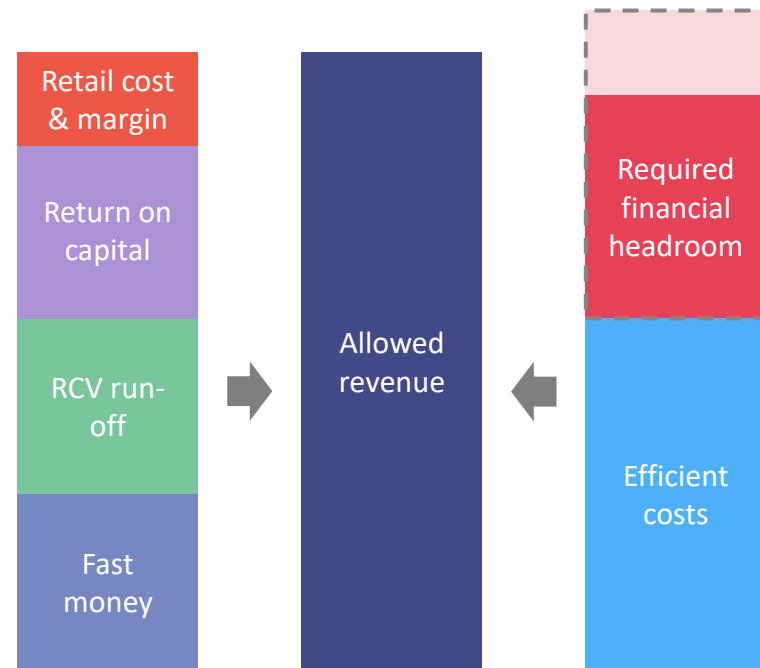
THE CYCLE OF UNDERFUNDING.

- 1. Financeability assessment wrongly suggests that the notional firm is financeable.** Determining whether allowed revenues are sufficient for companies to be financeable is a complex task, and there will be a degree of uncertainty to any such assessment. The concept of financeability is multi-faceted and needs to be considered across both the long- and short-term, as well as for both equity and debt. **In the section below, we show how small inaccuracies in the inputs to financeability assessment can lead to erroneous conclusions being drawn in relation to financeability.**
- 2. Revenue allowances are insufficient to maintain the necessary financial headroom, even for efficient firms.** If the financeability assessment wrongly suggests that the notional firm is financeable, no adjustments to the proposed level of allowed revenue will be made. Allowances will then be set at a level that is insufficient, even for the most efficient firms.
- 3. For investors to earn a level of return sufficient to stay invested, companies must stay within overall allowed revenues.** The fact that revenue allowances are insufficient forces companies to make difficult trade-offs as to which costs they incur and when. Investors will not remain invested in a company if the rate of return they are able to achieve is lower than the opportunity cost of their capital. As a result, companies will be forced to cut efficient expenditure to remain within overall revenue allowances.
- 4. Companies have no option but to spend less than needed to maintain service and/or asset quality.** Faced with the need to cut efficient expenditure, companies will react in different ways.
 - Some may apply insufficient cross-checks to the levels of asset maintenance and/or replacement. This will lead to short-term reductions in expenditure, at the expense of a higher lifetime cost for assets.
 - Some may blur the distinction between capex and opex, substituting the latter for the former to keep assets running while avoiding up-front capital costs, again at the expense of higher lifetime costs.
 - Some may not adequately reflect the nature of cost/quality trade-offs in their decision-making, especially where there are lags between incurring costs and maintaining or improving service quality.
- 5. The regulator interprets spending within allowed revenues as efficiency.** Because they can only observe a snapshot of costs at any one point in time, it is difficult for regulators to distinguish between efficiency and cuts to efficient expenditure that lead to lower service quality and/or higher costs in the long run. There is therefore a risk that regulators interpret expenditure within revenue allowances as representing cost efficiency.
- 6. Company efficiency is benchmarked using models based on historical expenditure.** To set revenue allowances in future price controls, regulators benchmark companies based on historical expenditure. This leads to cuts in efficient expenditure being baked into future revenue allowances.

OFWAT, IN LINE WITH OTHER REGULATORS, TYPICALLY INCLUDES A FINANCEABILITY ASSESSMENT AS PART OF ITS PRICE DETERMINATIONS.

- This assessment typically involves assessing the adequacy of the notional firm's financial headroom by:
 - Taking revenue allowances calculated using a building block approach to estimate efficient costs.
 - Using a financial model to predict the associated cash flows for the notional firm.
 - Testing whether the implied financial headroom is consistent with the target credit rating (in this case BBB+/Baa1), based loosely on the credit metrics used by ratings agencies (such as adjusted interest cover and gearing).
- **It is important to note that this type of financeability test asks a very specific question, namely whether an efficient notional company is financeable from a debt perspective over the course of the coming price control.**

Figure: Illustration of financeability assessment



FINANCEABILITY NEEDS TO CONSIDER THE LONG TERM AS WELL AS THE FORTHCOMING PRICE CONTROL AND NEEDS TO BE ASSESSED FROM BOTH A DEBT AND AN EQUITY PERSPECTIVE.

Financeability assessment of the type set out in the previous slide is necessary, but not sufficient, to determine the overall financeability of a regulated company. A more comprehensive assessment needs to address some important gaps in the current approach.

A comprehensive assessment of financeability should...



...test the accuracy of revenue allowances for the next price control, which are calculated based on a building block estimate of efficient costs.



...safeguard financeability in the long term by ensuring that pressure for lower bills in the short term does not lead to problems building up in the long term.



...ensure the notional firm is financeable from a debt perspective.



...ensure the notional firm is financeable from an equity perspective.



The current approach analyses financeability over the coming price control.



The current approach provides limited checks over the longer term and does not consider long-term trajectories.



The current approach tests financeability in relation to debt.



The current approach provides limited checks from an equity perspective.

To be fully robust, financeability assessment also need to take into account an equity perspective, and a consider a longer time-horizon than the forthcoming price control.

IN ADDITION TO SCOPE LIMITATIONS, TWO FURTHER ISSUES RISK EMBEDDING THE CYCLE OF UNDERFUNDING DESCRIBED ABOVE.

1

RISK OF ERRORS IN THE ASSESSMENT OF EFFICIENT COSTS AND CHARACTERISATION OF THE NOTIONAL FIRM

A reliable view of efficient costs, and the efficient capital structure, is critical for assessing the notional firm's financeability. These are both unobservable and therefore inherently uncertain in practice. A robust approach is required to deal with this uncertainty, otherwise it will lead to errors in the analysis of financeability.

2

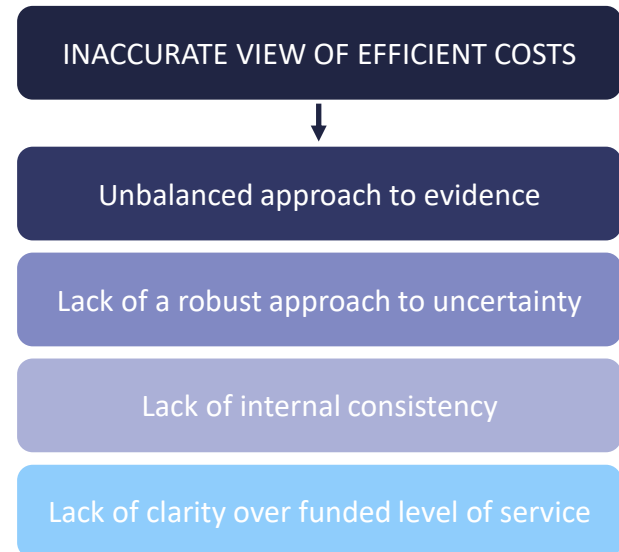
THE NEED TO PAY CLOSE ATTENTION TO THE DETAIL OF RATINGS AGENCIES' APPROACHES

Although it may not be possible to replicate ratings agency assessments exactly, this should not lead to circumstances in which the approach to financeability deviates so significantly from ratings agency approaches that it would reach different conclusions. It is therefore necessary to pay close attention to the detail of ratings agencies' approaches.

We set out further detail on these two issues in the following slides.

ISSUE 1: HAVING A RELIABLE VIEW OF EFFICIENT COSTS IS CRITICAL FOR FINANCEABILITY ASSESSMENT, BUT THEY ARE INHERENTLY UNCERTAIN IN PRACTICE.

- Financeability assessment (in part) involves determining whether a notional efficient firm has sufficient financial headroom, over and above its efficient costs. As such, a critical part of an accurate assessment is a reliable view of an efficient company's costs and capital structure.
- It is impossible, however, to know the level of costs or the capital structure of such a firm with certainty, because we can only ever observe the costs that companies actually incur, and which may not be fully efficient. Efficient costs must instead be estimated using available data.
- When reviewing evidence in relation to the level of efficient costs and the efficient capital structure, there are four errors that are liable to result in an inaccurate view.
 - **Failing to take a balanced approach to evidence**, meaning that different weight is attached to different evidence sources without a sound basis to so.
 - **Lacking a robust approach to uncertainty**, meaning that the full extent of uncertainty (including both downsides and upsides) is not taken into account when assessing financeability.
 - **Lacking internal consistency**, so that there are mismatches across the various building blocks that provide a view of efficient costs.
 - **Lacking clarity over the level of service that is funded by efficient costs**, meaning that there is inconsistency between the level of efficient costs and the service levels required over the price control.



ISSUE 2: THE NEED TO PAY CLOSE ATTENTION TO THE DETAIL OF RATINGS AGENCIES' APPROACHES.

- Ratings agencies do not take identical approaches and it would not be possible to replicate exactly what their assessment of a hypothetical notional company *would be* when assessing financeability. Nevertheless, the approach used to assess financeability should not deviate so significantly from ratings agency approaches that it would reach different conclusions about whether or not the same company would achieve the target credit rating.
- Under ratings agencies' methodologies, the adjusted interest cover ratio (AICR) is a key determinant of companies' credit ratings. This is a measure of the ratio of company cash flows to interest costs.
 - AICR has in some cases been defined as pre-interest funds from operation (FFO), less RCV run off, relative to cash interest (see formula 1).
 - In practice, when assessing regulated water companies, ratings agencies deduct surplus PAYG revenue from AICR (formula 2). Ofwat has referred to this as 'alternative AICR'.
- Subtracting both RCV run off and surplus PAYG revenue ensures that hitting financial ratios in the short term is not achieved through short-term fixes that increase near-term cash flow at the expense of financeability in the long term.

- If less weight were attached to measures that strip out surplus PAYG revenue, this would risk failing to identify circumstances in which short-term fixes store up problems for the long term.

$$AICR = \frac{FFO(pre\ interest) - RCV\ run\ off}{Cash\ interest} \quad (1)$$

$$AICR = \frac{FFO(pre\ interest) - RCV\ run\ off - Surplus\ PAYG}{Cash\ interest} \quad (2)$$

- In addition, we understand that ratings agencies pay close attention to trends in credit metrics over the course of price controls, as well as the average level. The approach to financeability assessment should reflect this.

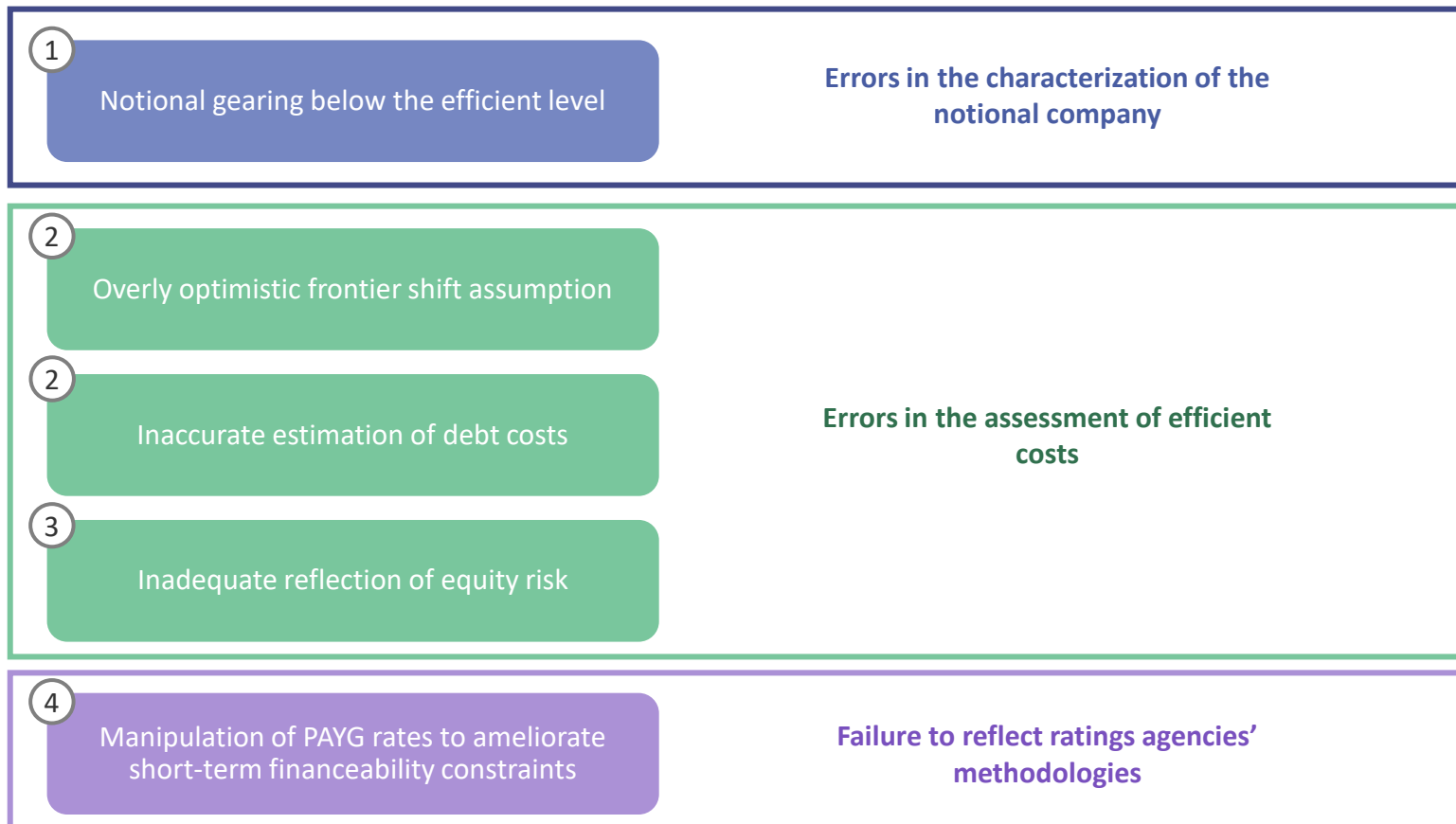
In view of these concerns, we have developed a methodology, based on ratings agency approaches, to analyse the impact of small errors in the assessment of financeability.



THE IMPACT OF ERRORS IN FINANCEABILITY ASSESSMENT

WE HAVE ANALYSED THE SCOPE FOR MISLEADING FINANCEABILITY ASSESSMENTS BY MODELLING THE IMPACT OF SMALL ERRORS IN APPROACH.

To analyse the scope for misleading financeability assessments, we have used our own financial model to determine the impact on financeability assessment of errors associated with the key issues discussed in the preceding slides (and summarised below).

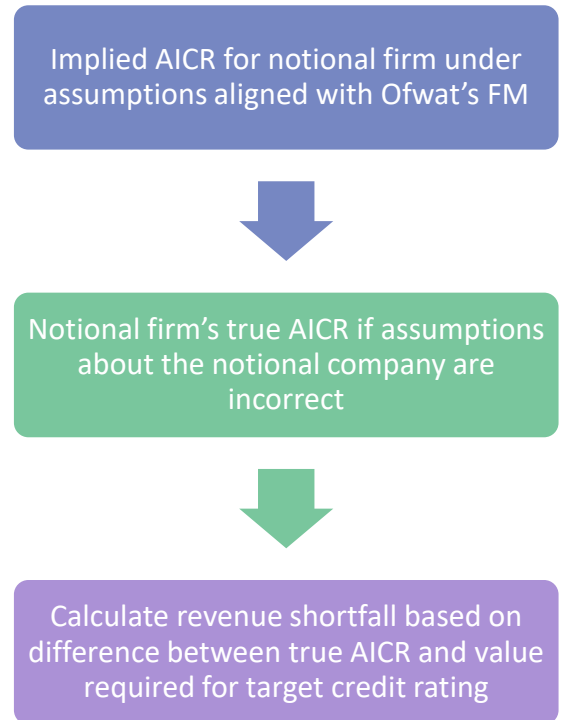


OUR RATIONALE FOR ANALYSING THESE POTENTIAL ERRORS IS THAT THEY REFLECT AREAS IN WHICH SOME AVAILABLE EVIDENCE CONTRADICTS OFWAT'S VIEW.

Error	Modelled value	True value	Comments
Notional gearing below efficient level	55% gearing	60% gearing	Ofwat's Final Methodology (FM) for PR24 signaled a reduction in notional gearing from 60% to 55%. Wessex's business plan explains why the appropriate level of notional gearing remains, in its view, 60%.
Optimistic frontier shift assumption	1% p.a. frontier shift	0% p.a. frontier shift	Ofwat applied frontier shift of 1.1% at PR19, which the CMA reduced to 1.0% at redetermination. However, in reality productivity in the United Kingdom has flatlined since 2008.
Inaccurate estimation of debt costs	3.28% cost of new debt, 0.1% issuance costs, 17% share of new debt	3.83% cost of new debt, 0.25% issuance costs, 30% share of new debt	Ofwat's cost of new debt uses the average of iBoxx A and BBB 10+ yield (September 2022), with a -0.15% benchmark index adjustment. The cost of debt will be underestimated if undue weight is attached to bonds with higher credit ratings and/or the assumed level of benchmark outperformance is not achievable. The higher cost of debt value is based on BBB bonds only and excludes the benchmark adjustment and uses Wessex's evidence in relation to issuance and liquidity costs (0.25%) and the proportion of new debt (30%).
Inadequate reflection of equity risk	4.14% cost of equity	6.25% cost of equity	Ofwat's PR24 FM set out its early view of the cost of equity of 4.14%. Wessex's business plan set out evidence that its cost of equity of at PR24 will be 6.25%, in part driven by higher construction risk.
Manipulation of PAYG rates to ameliorate near-term revenue shortfalls	AICR includes surplus PAYG	AICR subtracts surplus PAYG	Ratings agencies deduct surplus PAYG revenue when calculating AICR. Manipulating PAYG rates only improves perceived financeability in the short term if surplus PAYG revenue is <u>not</u> taken into account.

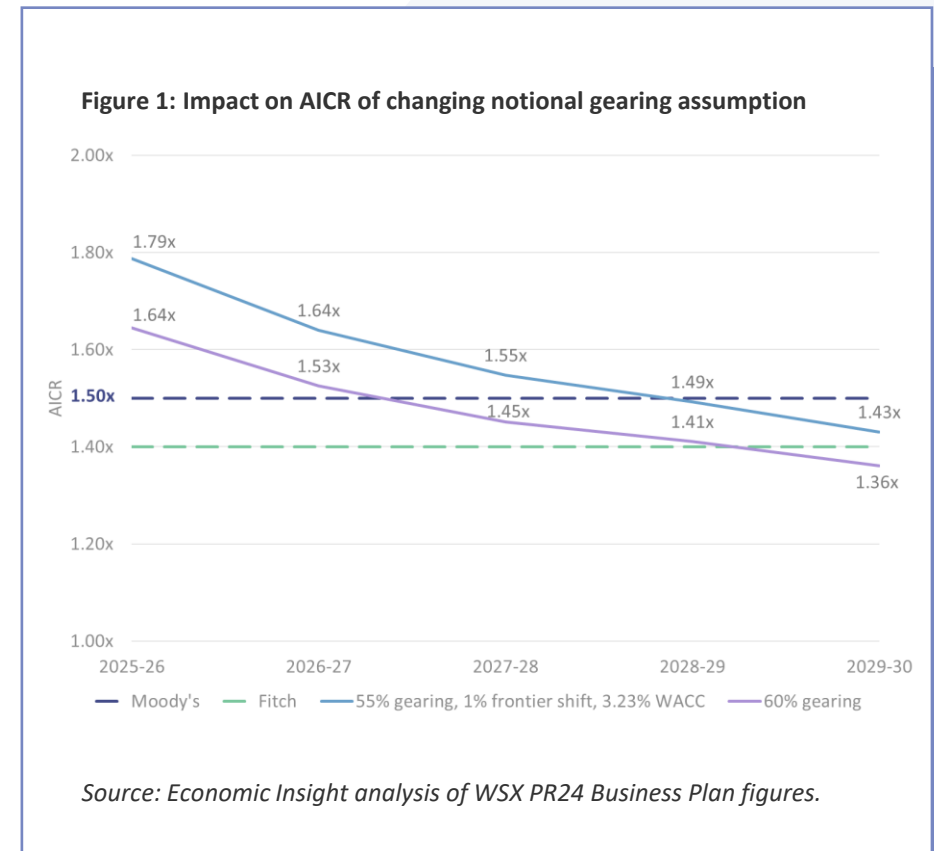
WE USE OUR FINANCIAL MODEL, WHICH REPLICATES THE APPROACH USED BY CREDIT RATING AGENCIES, TO DEMONSTRATE THE SIGNIFICANT IMPACT THAT EVEN SMALL ERRORS CAN HAVE ON FINANCEABILITY ASSESSMENT.

- Our analysis focuses on the notional company's adjusted interest coverage ratio (AICR). This measures the ratio of cash flow to interest expenses and is a key metric ratings agencies use to assess utility companies' financial strength.
- We use our financial model to calculate the implied AICR for the notional firm. This is based on cost and revenue data from Wessex's business plan data tables, modified to align with the modelled values set out in the preceding slide. The notional firm under these assumptions:
 - ▶ has gearing of 55% at the start of PR24, aligning with Ofwat's expectations in its FM;
 - ▶ achieves productivity gains (frontier shift) of 1% per annum, aligning with the CMA's position at PR19 redeterminations and at a similar level of Ofwat's position at PR19; and
 - ▶ has a WACC of 3.23%, consistent with Ofwat's early view of the cost of capital.
- We then estimate what the notional firm's true AICR will be if this characterisation of the notional firm is inaccurate and it: (i) has a higher efficient level of gearing than 55%; (ii) cannot achieve productivity gains of 1% per annum; (iii) has higher debt costs; and (iv) is exposed to higher equity risk.
- We then assess financeability by comparing AICR with the levels that Moody's and Fitch require for the target credit rating (1.50x and 1.40x respectively) and calculate the value of any revenue shortfall, based on the uplift required for the notional firm's AICR to meet the level required for the target credit rating.



IF NOTIONAL GEARING IS BELOW THE EFFICIENT LEVEL, THIS PROVIDES AN INACCURATE VIEW OF FINANCEABILITY AS THE NOTIONAL FIRM IS ASSUMED TO HAVE MORE CASH AVAILABLE THAN AN EFFICIENT COMPANY WOULD HAVE.

- If notional gearing is below the efficient level, this will provide an inaccurate view of financeability, because the notional firm is assumed to have more headroom than an efficient company would, in fact, have. In this case, the true level of financial headroom would be £60m lower than anticipated.
- In the adjacent figure, the solid blue line shows AICR over the course of PR24 at notional gearing of 55%, whereas the solid purple line shows AICR at 60% gearing. All other parameters are held constant (including 1% frontier shift and 3.23% WACC).
 - At 55% gearing, AICR remains above Moody's and Fitch's thresholds for an investment-grade credit rating for most of AMP8, though it drops below Moody's by 2028-29. **The fact that the position deteriorates across PR24 would nevertheless be of concern to ratings agencies.**
 - If the efficient level of gearing is 60%, however, the picture is different. Over the course of PR24, the AICR drops below both thresholds for investment grade credit ratings.
- **If the efficient level of notional gearing was 5% higher than the 55% level assumed, financeability analysis would wrongly suggest the notional firm (with 55% gearing) is financeable and fail to identify a revenue shortfall of £28m over PR24.**



OVERLY OPTIMISTIC ASSUMPTION ABOUT PRODUCTIVITY GAINS IMPLY THAT THE NOTIONAL COMPANY HAS LOWER EFFICIENT COSTS, AND THEREFORE GREATER FINANCIAL HEADROOM, THAN IS REALLY THE CASE.

- If the assumptions made about the notional firm's potential for on-going productivity gains are too optimistic, then the implied level of costs will be below the efficient level. This will mean that the notional company will have more financial headroom than an efficient company would, in fact, have. In this case, the true level of financial headroom would be £38m lower than anticipated.
- In the adjacent figure, the solid blue line shows AICR over the course of PR24 if the notional company can achieve efficiency gains through frontier shift of 1% p.a., whereas the solid purple line shows AICR if frontier shift is 0%. All other parameters are held constant (including 55% notional gearing and 3.23% WACC).
 - If 1% p.a. frontier shift is achievable for the notional company, AICR remains above Moody's and Fitch's thresholds for an investment grade credit rating for a majority of PR24. **The fact that the position deteriorates across PR24 would nevertheless be of concern to ratings agencies.**
 - If this is overly optimistic and productivity flatlines, over the course of PR24, AICR drops below both thresholds for investment grade credit ratings.
- **If the assumption of 1% p.a. frontier shift is too optimistic, financeability analysis would wrongly suggest the notional firm is financeable and fail to identify a revenue shortfall of £6m over PR24.**

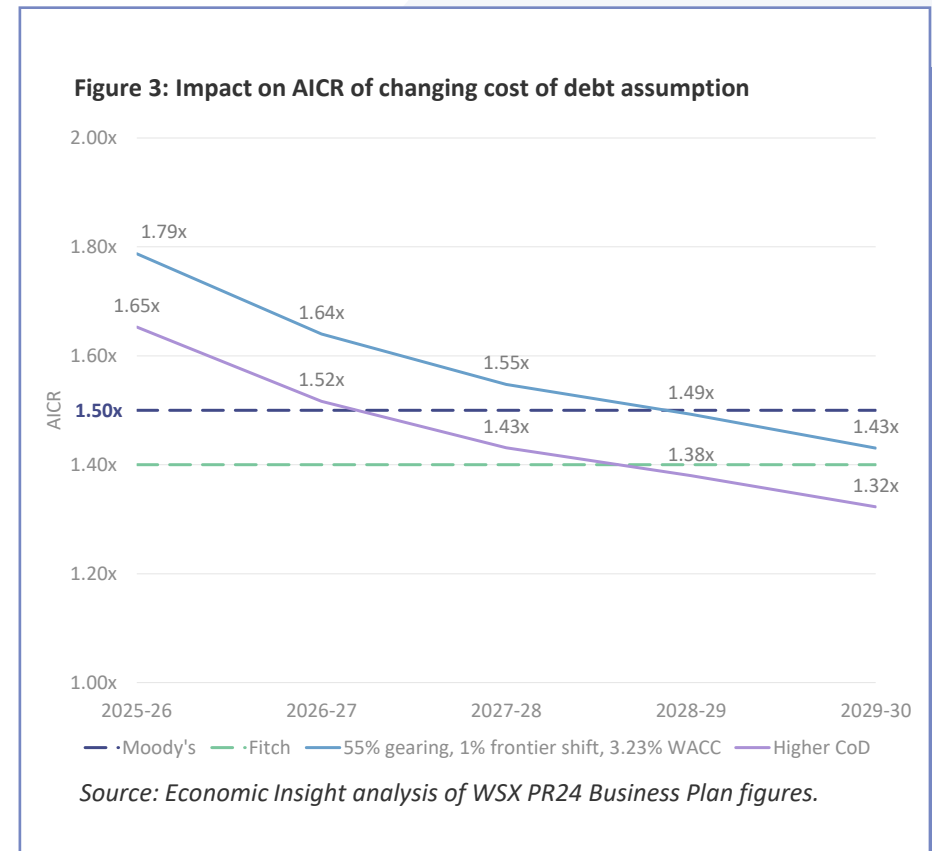
Figure 2: Impact on AICR of changing frontier shift assumption



Source: Economic Insight analysis of WSX PR24 Business Plan figures.

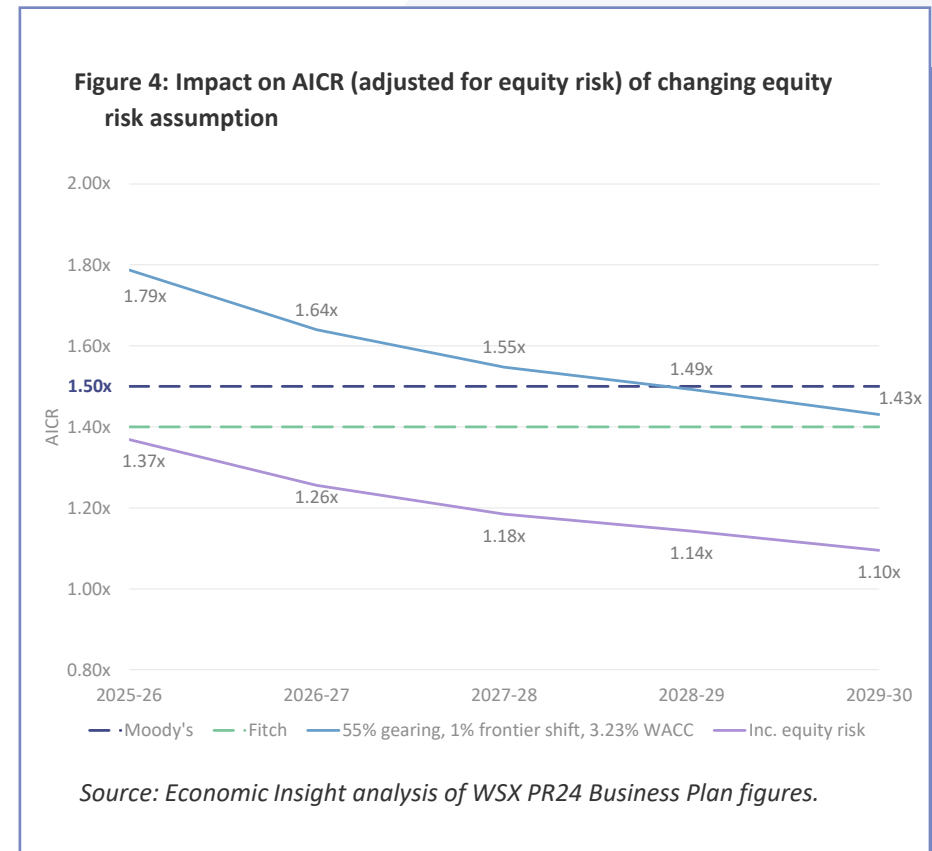
INACCURATE ESTIMATION OF DEBT COSTS LEAVES THE NOTIONAL COMPANY WITH INSUFFICIENT REVENUE ALLOWANCES TO COVER ITS EFFICIENT DEBT COSTS.

- If the assumed cost of new debt is too low, for example because undue weight is attached to higher-rated bonds or the potential for benchmark outperformance is overestimated, the notional company will not be able to achieve the allowed cost of debt. In this case, the true level of financial headroom would be £72m lower than anticipated.
- In the adjacent figure, the solid blue line shows AICR over the course of PR24 if the cost of new debt is 3.28% (with 0.1% issuance and liquidity costs and 17% share of new debt), whereas the solid purple line shows AICR if the cost of new debt is 3.83% (with 0.25% issuance costs and 30% share of new debt). All other parameters are held constant (including 55% notional gearing and frontier shift).
 - If new debt costs of 3.28% are achievable, AICR remains above Moody's and Fitch's thresholds for an investment grade credit rating for a majority of PR24. A deteriorating AICR would nevertheless be of concern to ratings agencies.
 - If this is too low, over the course of PR24, AICR drops below both thresholds for investment grade credit ratings.
- **If the assumed cost of debt is too low, financeability analysis would wrongly suggest the notional firm is financeable and fail to identify a revenue shortfall of £40m over PR24.**



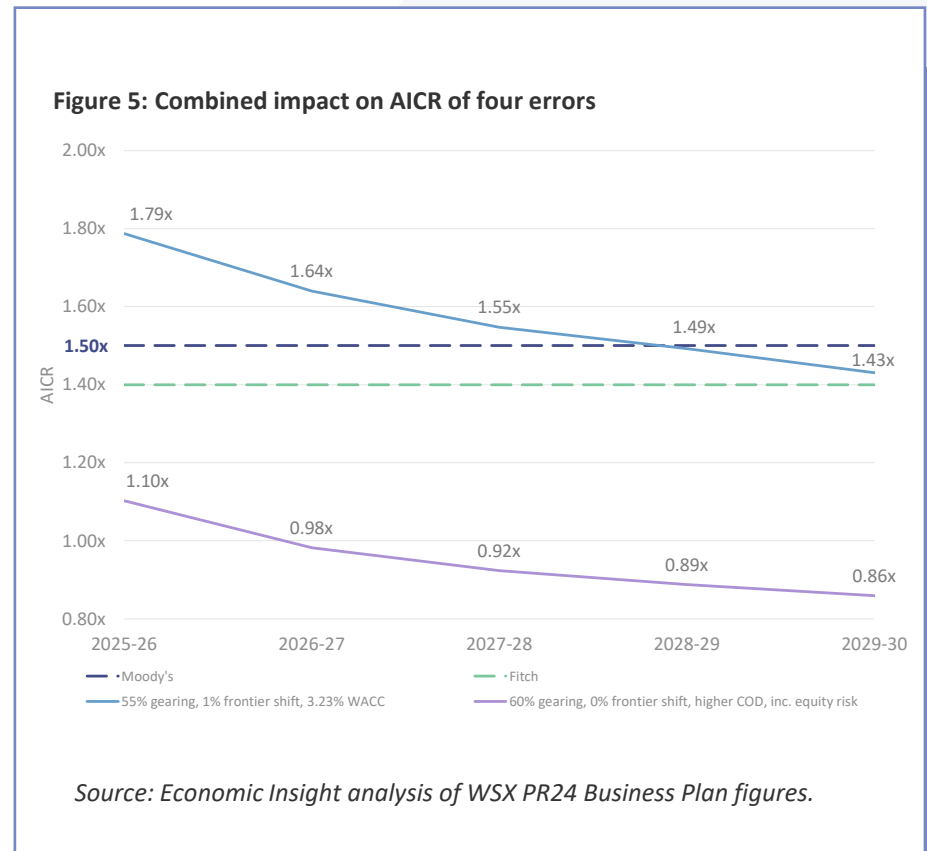
INADEQUATE REFLECTION OF EQUITY RISK WOULD NOT BE DETECTED BY ANALYSING AICR. ONCE THIS IS TAKEN INTO ACCOUNT, IMPLIED FINANCIAL HEADROOM WOULD BE SIGNIFICANTLY LOWER.

- The cost of equity is not considered when calculating AICR, which measures financial headroom from a debt perspective. As such, even if the notional company's true cost of equity is 6.25%, in line with Wessex's business plan position, this will not be reflected in AICR. **This highlights the restricted scope of financeability assessments that focus only on credit metrics.**
- The cost of equity is nevertheless a real cost to companies. To quantify the potential impact of inadequately reflecting equity risk, we have calculated the difference in cash terms between Ofwat's early view of the cost of equity of 4.15% and Wessex's business plan view of 6.25% (£225m over the course of PR24) and subtracted this when calculating AICR. This is shown in the solid purple line.
- In the adjacent figure, the solid blue line shows AICR over the course of PR24, based on 55% notional gearing, 1% p.a. frontier shift and 3.23% WACC. AICR remains above Moody's investment grade threshold for a majority of PR24 and above Fitch's for the whole price control period (again, though, the downward trend in AICR may nevertheless be of concern).
- **In this example, financeability analysis would wrongly suggest the notional firm is financeable and fail to identify a revenue shortfall of £193m over PR24.**



THE COMBINED IMPACT OF ALL FOUR OF THE ERRORS WE HAVE EXAMINED IS SIGNIFICANT. THE NOTIONAL FIRM WOULD NOT BE FINANCEABLE IN ANY YEAR OF THE PRICE CONTROL.

- In the adjacent figure, the solid blue line shows AICR over the course of PR24 based on 55% notional gearing, frontier shift of 1% p.a., and a 3.23% WACC (including 4.15% cost of equity). AICR remains above Moody's and Fitch's thresholds for an investment-grade credit rating for most of AMP8, though it drops below Moody's by the end of the period. Again, the fact that the position deteriorates across PR24 would nevertheless be of concern to ratings agencies.
- The solid purple line shows AICR if the efficient level of gearing is in fact 60%, on-going frontier shift is 0%, and higher costs of debt and equity are accounted for. For the entirety of PR24, the AICR lies materially below both ratings agency thresholds for investment grade credit ratings
- **If all errors apply, financial headroom would be £405m lower than anticipated. Financeability analysis would wrongly suggest the notional firm is financeable and fail to identify a revenue shortfall of £373m over PR24.**



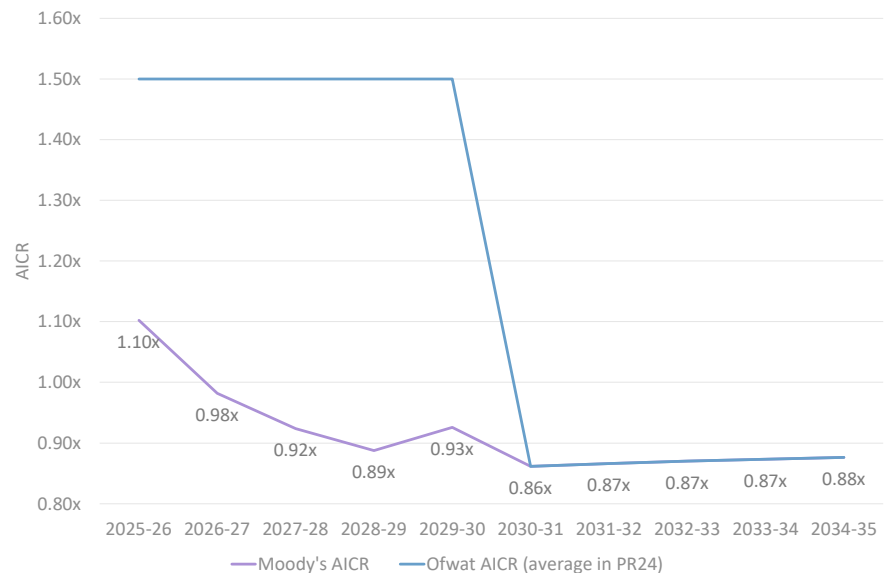
FAILING TO PAY CLOSE ATTENTION TO RATINGS AGENCY METHODOLOGIES COULD FACILITATE SHORT-TERM FIXES THAT STORE UP LONGER-TERM FINANCEABILITY PROBLEMS.

- As we set out in slides 17-18, it is important to pay close attention to the detail of ratings agency methodologies. If AICR is calculated without stripping out the impact of excess PAYG revenue on FFO, a low AICR would be ameliorated by changing PAYG rates to increase near-term cash flows. This is not possible under ratings agencies' definitions of AICR, which are unaffected by surplus PAYG.
- Failing to strip out surplus PAYG revenue could lead financeability assessment to reach different conclusions over whether notional companies have sufficient financial headroom to achieve an investment-grade credit rating. If excess PAYG revenue is not stripped out, financeability (as measured by AICR) could be improved in the short-term by shifting revenue from future price controls into PR24. This could store up longer-term problems and raises important questions of inter-generational fairness.
- To examine this issue in further detail, we have developed a scenario in which changes to PAYG rates are used to ameliorate cash shortages at PR24. This is based on using alterations to PAYG rates to offset the combined impact of the errors described.
 - We first assume that PAYG rates are manipulated to achieve an average AICR (under the definition that does not strip out excess PAYG revenue) of 1.50x across AMP8. This equates to a movement of £373m of revenue allowances from future price controls into AMP8.
 - We then calculate what implied revenue allowances and AICR (under both definitions) would be across AMP9, assuming expenditure and RCV additions from 2030 onwards grow at a constant rate of 2%.
- **We emphasise that changing PAYG rates only improves AICR when surplus PAYG is not stripped out. Once this is done in line with ratings agencies' methodologies, it is not possible to pull on this lever to ameliorate the impact of short-term revenue shortfalls on credit metrics.**

SHORT-TERM FIXES MAY JEOPARDISE FINANCEABILITY IN THE LONG TERM, AND ONLY APPEAR TO IMPROVE SHORT-TERM FINANCEABILITY UNDER DEFINITIONS THAT ARE INCONSISTENT WITH RATINGS AGENCY APPROACHES.

- The adjacent figure shows the impact of using PAYG rates to ameliorate short-term financeability constraints based on AICR measures that do not strip out surplus PAYG revenue, over AMP8 and AMP9.
 - The solid blue line shows implied AICR when surplus PAYG revenue is not stripped out. AICR *appears* to be consistent with an investment grade credit rating in AMP8, averaging 1.50. Even under this more flattering metric, however, problems are simply deferred until the subsequent price control.
 - In contrast, the solid purple line shows the implied AICR when surplus PAYG is stripped out, in line with credit rating agency methodologies. This measure remains significantly below the level required for the target credit rating across both AMP8 and AMP9.
- Although manipulating PAYG rates *appears* to improve financeability if surplus revenue is not stripped out, in practice financeability problems will worsen due to the cumulative impact of multiple revenue shortfalls over time. In addition to a revenue shortfall of £362m over AMP8, the notional firm would also face the prospect of a £696m shortfall at AMP9.
- **The use of short-term ‘fixes’ to ameliorate short-term cash flows imperils financeability in the long term and does nothing to improve it in the short term. Using appropriately defined credit metrics rules out the use of such fixes.**

Figure 5: Long-term impact on AICR of manipulating PAYG rates



Source: Economic Insight analysis of WSX PR24 Business Plan figures.



CONCLUSIONS

ASSESSING FINANCEABILITY IS VITAL FOR ENSURING THAT COMPANIES CAN ATTRACT AND RETAIN INVESTMENT, BUT DOING SO ACCURATELY IS DIFFICULT. WE HAVE MODELLED THE POTENTIAL IMPACT OF FIVE ERRORS.

- Financeability duties reflect the vital need for regulated companies to attract and retain the investment required to finance their functions. This investment enables companies to meet the needs of customers and achieve environmental and societal goals. Financeability assessments play an important role in ensuring that regulators meet these duties.
- Errors in the assessment of financeability in one price control can lead to a cycle of underfunding. This happens when revenue shortfalls in one price control are not identified and are then embedded in future controls as underspends are conflated with efficiency.
- The practical challenges of assessing financeability are numerous and include:
 - The fact that a comprehensive assessment of financeability needs to consider the longer term, and an equity perspective, in addition to looking at financeability from a debt perspective over the course of the forthcoming price control.
 - The difficulties of estimating efficient costs and characterising the notional company.
 - The risk that failure to reflect ratings agency methodologies renders financeability assessment inaccurate, in particular failing to identify circumstances in which short-term fixes to address near-term revenue shortfalls store up problems for the long term.
- Reflecting these challenges, we have analysed the scope for inaccuracies in financeability assessment by modelling the potential impact of five errors:
 - Mischaracterising the notional company by setting its gearing below the efficient level.
 - Underestimating efficient costs by applying overly optimistic assumptions about the potential scale of on-going productivity gains (frontier shift).
 - Underestimating the efficient cost of new debt, as well as issuance/liquidity costs and the share of new debt.
 - Underestimating efficient costs by inadequately reflecting the level of equity risk.
 - Mischaracterising ratings agency approaches and manipulating PAYG rates to ameliorate short-term revenue shortfalls.

THE POTENTIAL IMPACT OF INACCURATE FINANCEABILITY ASSESSMENT IS SIGNIFICANT. THE ERRORS WE HAVE ANALYSED WOULD MEAN REVENUE SHORTFALLS EQUIVALENT TO HUNDREDS OF MILLIONS OF POUNDS.

- The adjacent table summarises our analysis of the potential for errors in financeability testing. We set out the *implied* AICR that would be modelled based on the relevant error, alongside the true ratio. We also show the impact of these errors on financial headroom and associated revenue shortfalls (i.e. the additional revenue needed to return the notional firm to an AICR of 1.50 and thus achieve the target credit rating).
- In all cases, financeability analysis would wrongly suggest the notional firm is financeable** and fail to identify revenue shortfalls ranging from £6m to £193m over the course of PR24. As AICR measures financial headroom from a debt perspective, the existing approach would not identify revenue shortfalls arising from inadequately reflecting equity risk, and the AICR we present in this scenario includes an additional adjustment to account for this.
- The cumulative impact of the four errors is significant and would mean that revenue allowances were **£373m less than required to maintain the target credit rating over AMP8**.

- If, contrary to ratings agency methodologies, PAYG rates were manipulated to cover this revenue shortfall over the course of AMP8, this would store up longer-term problems. In addition to a £362m revenue shortfall remaining at PR24, by AMP9 the notional company would face revenue £696m below the level required to attain the target credit rating.

Table: Summary of analysis of errors in financeability testing

Error	Implied AICR (2029-30)	True AICR* (2029-30)	Impact on financial headroom	Revenue shortfall
Notional gearing set below efficient level	1.43	1.36	-£60m	-£28m
Optimistic frontier shift assumption	1.43	1.36	-£38m	-£6m
Inaccurate estimation of debt costs	1.43	1.32	-£72m	-£40m
Inadequate reflection of equity risk	1.43	1.10	-£225m	-£193m
Cumulative impact	1.43	0.86	-£405m	-£373m
Use of short-term fixes	1.50	0.88	-£405m	-£362m AMP8 -£696m AMP9

*In the case of inadequate reflection of equity risk, an additional adjustment to AICR is applied to reflect differences between the assumed and true costs of equity.

MATERIAL REVENUE SHORTFALLS THREATEN LONG-TERM INVESTMENT IN THE CAPITAL PROJECTS THAT ARE REQUIRED TO DELIVER THE REQUIRED LEVEL OF SERVICE TO CUSTOMERS.

- When revenue shortfalls arise, firms face painful trade-offs. To maintain a given credit rating (and its associated financial ratios), a firm will need to match shortfalls in its allowances with a reduction in spending. If this does not occur, firms' credit ratings will be downgraded, restricting their ability to raise debt in practice.
- **A consequence of inaccuracies in the assessment of financeability is that companies may have to forego crucial investment in long-term capital projects, to the detriment of customers.**
- A revenue shortfall over AMP8 of the scale we have analysed in this report (£373m) is equivalent to more than 10% of Wessex's planned capital investment of £3,500m. As can be seen in the adjacent table, it is of similar scale to, or larger, than, several individual components of Wessex's capital programme, such as bioresources and IED.

Table: Summary of AMP8 capital investment costs at risk in the event of revenue shortfall.

Drivers of capital investment in AMP8	Cost
Nutrient reduction	£900m
Storm overflow improvement	£400m
Maintaining asset resilience	£1,100m
Bioresources and IED	£180m
WINEP improvements and investigations	£150m
Smart metering, leakage and PCC reduction	£120m
Pollution and sewer flooding	£120m
Wastewater treatment capacity	£100m
Continuous river quality monitoring	£70m
New development	£70m
Other	£290m
Total	£3,500m

Source: Wessex Business Plan 2025-30.

Note: capital investment drivers with a total cost below the revenue shortfall analysed in this report are highlighted in red.



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