SRN60 Financeability Technical Annex

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Section 1: Notional Company Financeability

1. Executive summary

We assessed notional company financeability with reference to an efficient company with a notional capital structure of a 55% opening gearing, as prescribed in the PR24 Ofwat Final Methodology (FM) and assuming neutral performance on totex, retail, performance commitments, and cost of debt, which is consistent with disregarding the risk inherent in the PR24 incentive package. We note that the reduction in notional gearing from 60% to 55% is not supported by market evidence and increases the share of capex that needs to be funded by equity.

For the purpose of our assessment, financeability is defined as the ability to generate sufficient cashflow in each year of AMP8 such that credit metrics meet the thresholds commensurate with a Baa1/BBB+ credit rating. This level is consistent with the guidance in the PR24 FM as it is at least two notches above the minimum investment grade rating. The cost of capital parameters used for this assessment are also consistent with the PR24 FM, updated to reflect the recent changes in market variables, with the point estimate of unlevered beta and TMR at the top of the range, reflecting the large scale and increased complexity of our capital programme which increases our exposure to systematic risk. There are strong arguments that those parameters should be set differently, as set out in our technical annex on cost of capital.[1]

In this assessment, no advancement of cashflows into AMP8 has been assumed from use of PAYG and RCV run-off as financeability levers, nor has the revenue impact of reconciliation adjustments relating to prior periods been modelled. The proportion of index-linked debt is assumed to be 33%, most of which is RPI-linked embedded debt, consistent with sector data used in setting the cost of debt allowance[2]. An average dividend yield of 2% is assumed, reflecting the significant real RCV growth in our business plan.

We used Ofwat's financial model to undertake the financeability assessment, with a limited number of adjustments made to address technical limitations and with added functionality to run downside scenarios. We present credit metrics set out in Ofwat's financial model and include two versions of the FFO-to-debt ratio to ensure that one of them is fully consistent with the approach adopted by S&P and subtracts indexation on index-linked debt from FFO.

Under these assumptions, the business plan is financeable on a notional basis at the target level of credit rating of Baa1/BBB+. Forecast credit metrics are within the rating agencies' guidance for a water company not benefitting from structural or contractual debt enhancements. As set out in Table 1, relative to the downgrade bound of guidance, the notional company would have headroom of c.0.2x on the AICR, c. 10 percentage points on gearing and limited to no headroom on the FFO-to-debt (alternative).

[1] Technical annex: cost of capital
[2] As per Ofwat's PR24 Balance sheet cost of debt balance model, updated for latest market data

Table 1: Key credit metrics for the notional company and guidance, before the impact of revenue reprofiling adjustments

	AICR	Gearing	FFO-to-Debt	Alternative FFO-to-Debt
Applicable rating agency	Moody's	Moody's	S&P	S&P
AMP8 forecast	1.7x (avg)	61.9% (end of period)	9.9% (avg)	9.0% (avg)
Ratios commensurate with 'BBB+/Baa1' rating	1.5 – 1.7x	65 – 72%	9-11%	9 – 11%

Source: Southern Water analysis.
Note: Ratios presented are as calculated in the PR24 financial model with opening gearing of 55% and excluding the impact of any equity injections. AICR: 'Adjusted cash interest cover ratio (Ofwat) - Appointee', Gearing: 'Gearing – Appointee', FFO-to-debt: 'Funds from operations / net debt (Ofwat) – Appointee', FFO-to-debt: 'Funds from operations / net debt (Alternative) – Appointee'. Consistent with the narrative in the PR24 FM and the calculations of the PR24 financial model, only ratios for Moody's and S&P are shown and not Fitch.

The assessment shows that absent new equity, gearing would rise to 61.9% by the end of AMP8 due to the scale of our investment programme needed to deliver on various statutory requirements. The quantum of new equity to maintain notional gearing of 55% is substantial: £0.6bn in total across AMP8. Without the equity injection, the notional company would still be able to maintain the target level of credit ratings, but with much lower headroom than at the start of AMP8, given a sharp increase in gearing. The availability of an equity injection, however, would be subject to equity financeability.

We agree with Ofwat that equity financeability is best addressed by setting price determinations with a risk and return package that allows efficient companies to have a reasonable prospect of earning the base allowed return. Our analysis of both the risk inherent in the PR24 incentive package and return proposed in the PR24 FM suggests that, first, an efficient company would not have a reasonable prospect of earning base allowed return due excessive risk exposure, and second, that there is inconsistency between the allowed return and the associated equity risk that an investor would bear[3]. These inconsistencies could undermine equity financeability of the notional company if no risk mitigations and changes to the allowed returns were applied.

It is important that the notional structure is financially resilient against severe but plausible downside shocks. To deepen the notional financeability analysis, we also assessed how an efficient company with the notional capital structure could deal with a range of downside scenarios, including those prescribed to test our own financial resilience during 2025-30 and beyond. These scenarios include the suite suggested in the PR24 FM for the actual company, and two combination scenarios based upon the P50 RoRE risk exposure for the notional company, with and without risk mitigations as discussed in the technical risk annex, resulting in the combined RoRE performance of -3.59% and -0.84%, respectively.

The P50 RoRE risk exposure represents the median expected performance of the notional company and not the performance expected under the downside scenario. It considers a plausible combination of risk exposures across all performance drivers: wholesale and retail totex, DPC, ODIs, C-Mex and financing. It is based on the sector's historical performance and expected changes to the scale of capex and the overall

[3] Our view of an appropriate return on capital that would adequately remunerate investors for the risk inherent in the incentive package consistent PR24 FM, is presented in the "Technical annex: cost of capital". Our assessment of the risk to allowed returns is presented in the "Technical annex: Risk to allowed returns in AMP8".

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incentive package in AMP8. As the P50 performance scenarios provides a holistic of how the notional company could perform across all parameters rather than any parameter individually, it is most appropriate to focus on it for the purposes of the financial resilience analysis.

Application of the P50 scenario results in the forecast credit ratios not being commensurate with the target BBB+/Baa1 credit rating. Under the unmitigated P50 combined scenario with overall performance equivalent to –3.59% RoRE, credit metrics would fall to a level commensurate with, at best, the lowest investment-grade rating or most probably with 'BB+/Ba1'. The average AICR of 0.9x may be insufficient to support a Baa3 rating with Moody's as it would imply that the notional company does not generate sufficient cash flows to service its debt during AMP8. Closing AMP8 gearing would rise to 69.6% and an equity injection of £1.4 billion would be required to reduce gearing to the notional assumption of 55%, although the AICR would only improve modestly to c.1.0x.

Given the high degree of risk exposure and cost of equity underperformance with an outturn equity return of 1.24%[4], the ability of the notional company to attract the new equity would be significantly hindered. Consequently, the notional company is not likely to be financially resilient under a P50 scenario, absent risk mitigations. The risk mitigations proposed in our business plan, including return adjustment mechanisms, result in a narrower, less asymmetric risk range, with a P50 of –0.84% RoRE for the notional company.

With the risk mitigations, credit metrics in the P50 scenario would be consistent with a Baa2/BBB rating, which is still an acceptable outcome that satisfies the license condition. Risk mitigations proposed in our plan are, therefore, crucial to ensure that the notional company and we remain financially resilient throughout AMP8.

To reduce gearing from the forecasted 63.7% to the notional assumption of 55% and return metrics to Baa1/BBB+ guidance, an equity injection of £0.8 billion would be required, which would not be as critical for the financial resilience as the risk mitigations. The notional company may still face challenges in attracting this equity even under the mitigated scenario as risk and return may not be sufficiently aligned to attract and retain the required equity investment. Alongside the proposed risk mitigations, including return adjustment mechanisms, an appropriate Southern Water capital return of 4.58% (CPIH, real) as set out in the technical return annex[5] would improve the notional company's ability to raise new equity and consequently, its financeability and resilience to the downside scenarios.

Credit metrics for the P50 combination scenarios are set out in Table 2, with metrics for the full range of downside scenarios presented in Appendix.

[4] Calculated based on the wholesale cost of equity of 4.83% (CPIH, real) underpinning the 3.77% wholesale WACC used in our BP and data tables less P50 performance
[5] SRN64 Technical annex: cost of capital

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Table 2: Key credit metrics under key downside scenarios

	Indicative rating	AICR	Gearing	FFO-to-Debt	Alternative FFO-to-Debt
Guidance for Baa1/BBB+		1.5 – 1.7x	65 – 72%	–	9 – 11%
Guidance for Baa2/BBB		1.3 – 1.5x	72 – 80%	–	6 – 9%
Unmitigated P50 underperformance (without new equity)	Ba1/BB+	0.9x	69.6%	6.5%	5.7%
Unmitigated P50 underperformance (with new equity)	Baa3/BBB	1.0x	55.0%	8.3%	7.4%
Mitigated P50 underperformance (without new equity)	Baa2/BBB	1.5x	63.7%	9.0%	8.2%
Mitigated P50 underperformance (with new equity)	Baa1/BBB+	1.6x	55.0%	10.5%	9.6%

Source: Southern Water analysis.

Absent risk mitigations, the notional company is likely to experience financial resilience issues under the plausible performance scenarios. This provides clear signals about its excessive risk exposure due to the calibration of the PR24 incentive package. Analysis we undertook allowed us to demonstrate that the financial resilience issues occur as a result of the way PR24 incentive package is calibrated in the FM rather than due to decisions associated with chosen capital structures.

We did not factor in the credit risk related to implementation of DPC in our assessment of the notional company financeability due to uncertainty of the severity of the impact but flag the negative impact it is likely to have given the size of DPC in our plan. The current expectation is that under the accounting rules DPC projects will be recognised as a lease liability, with a corresponding right of use asset on the balance sheet. Credit rating agencies have varying approaches to dealing with this issue, including the extreme one to include the lease liability in debt but not increase respective RCV, and the more balanced one where both debt and RCV are adjusted upwards. Under either of these scenarios credit metrics will be worse than the completely de-consolidated approach, hence negatively impacting credit rating outcomes and financeability.

Appendix 1. Assumptions and scenario specification

Modelling assumptions

We used Ofwat's financial model to undertake the financeability assessment, with a small number of adjustments made to address technical limitations.

These adjustments included:

- Amendments to the debt functionality to separately model embedded and new debt
- Amendments to the interest calculation methodology including interest on indexation in respect of index-linked debt
- New functionality to allow the modelling of downside scenarios and sensitivities, including the calibration of debt and equity injections by macro

Consistent with the PR24 FM, 33% of debt is assumed to be index-linked, of which all new debt raised during AMP8 is assumed to be linked to CPIH. 94.1% of opening index-linked debt is assumed to be RPI-linked based on analysis of balance sheet data for the sector, as set out in our technical annex on risk.[6]

The actual cost of embedded and new debt is assumed to be equal to the allowed cost of embedded and new debt that underpins the cost of capital used in this assessment, with the nominal cost of CPIH- and RPI-linked debt deflated by 2% and 2.9% respectively, consistent with the assumptions used in the cost of debt allowance. We note that risk analysis shows the notional company may underperform on both embedded and new debt at a P50 level, as set out in the technical risk annex.[6]

Table 3 summarises the key assumptions made in respect of totex, PAYG, run-off rates, cost of capital and inflation.

Table 3: Summary of key assumptions

Assumption	2025/26	2026/27	2027/28	2028/29	2029/30
Wholesale totex (real)	£1.3bn	£1.5bn	£1.3bn	£1.2bn	£1.0bn
Weighted average PAYG	35.3%	30.3%	33.1%	35.5%	42.6%
Weighted average run-off rate	4.5%	4.5%	4.5%	4.5%	4.5%
Cost of equity (nominal)	6.92%	6.92%	6.92%	6.92%	6.92%
Cost of debt (nominal)	4.95%	4.95%	4.95%	4.95%	4.95%
CPIH (financial year-average)	2.0%	2.1%	2.1%	2.1%	2.1%
RPI-CPIH wedge (financial year-average)	0.9%	0.9%	0.9%	0.9%	0.9%
CPIH (long-term)	2.0%	2.0%	2.0%	2.0%	2.0%

Source: Southern Water analysis.

[6] SRN57 Technical annex: Risk

Downside scenarios and detailed outputs

Table 4 sets out the downside scenarios that have been modelled. These downside scenarios follow PR24 FM but also include two combined scenarios which realistically represent the notional company's baseline performance in AMP8 across all the performance parameters. The two combined scenarios are the most relevant ones because they imitate likely performance in the round rather than under separate performance categories and therefore represent the most realistic evolution of the notional company's financial profile in AMP8. In our analysis, we intentionally decided to focus on these scenarios as the most informative ones.

Table 4: Downside scenarios modelled for the notional company

Scenario	Description
Totex	Totex underperformance (10% of totex) over 5 years
ODIs	ODI underperformance payment (3% of RORE) applied in year 2
Low inflation	Inflation 2% below the base case assumption for each year of AMP8
Deflation	Deflation of -1% for two years, followed by return to target over the remainder of AMP8
High inflation	A 10% spike in inflation with 2% increase in RPI-CPIH wedge
Bad debt	20% increase in bad debt applied in years 2 and 3
Cost of new debt	Cost of new debt 2% higher than the base case assumption throughout AMP8
Financial penalty	Penalty equivalent to 6% of appointee revenue applied in year 2
Unmitigated P50	Calculated P50 RoRE risk of the notional company, absent risk mitigations. Modelled as an equivalent revenue reduction in each year
Mitigated P50	Calculated P50 RoRE risk of the notional company with proposed risk mitigations. Modelled as an equivalent revenue reduction in each year

Source: Southern Water analysis.

The credit metrics used in the assessment were as follows, calculated in the PR24 financial model:

- AICR: 'Adjusted cash interest cover ratio (Ofwat) - Appointee'
- Gearing: 'Gearing – Appointee'
- FFO-to-debt: 'Funds from operations / net debt (Ofwat) – Appointee'
- FFO-to-debt: 'Funds from operations / net debt (Alternative) – Appointee'

In the alternative calculation of the FFO-to-debt ratio, accretion on index-linked debt is deducted from FFO, which is consistent with S&P approach. Our view is that this metric is more appropriate as it mirrors how S&P would rate companies in practice and reflects the negative impact of high inflation on the ratio, although the impact on the gearing from high inflation would be positive.

Both the annual profile and AMP8-average metrics were considered as part of the assessment, with most weight given to the average on the basis that the rating agencies will typically 'look-through' short-term volatility to understand the medium-term credit profile of the company. Gearing was assessed on a period end basis and the required equity injection was scaled to maintain gearing in line with the 55% notional assumption quantified. Metrics were calculated before the impact of revenue reprofiling as it would be difficult to make an informed assumption on these for the notional company.

Table 5 sets out a summary of ratio thresholds applied by Moody's and S&P to rated entities with a plain vanilla, unsecured debt structures, based upon published press releases on the rated WaSCs.

Table 5: Summary of ratio thresholds applied by Moody's and S&P to rated entities

Rating	AICR	Gearing	FFO-to-debt
Baa1 / BBB+	1.5 – 1.7x	65 – 72%	9 – 11%
Baa2 / BBB	1.3 – 1.5x	72 – 80%	6 – 9%

Source: Southern Water analysis.

Table 6 sets out the average credit metrics across AMP8 based on the specified downside scenarios and provides implied ratings based upon the ratio thresholds set out above. No new equity is assumed and consequently gearing rises in all scenarios above the 55% notional assumption.

Table 6: Forecast AMP8 credit metrics across the modelled downside scenarios and indicative rating, absent equity injections

Scenario	AICR	Implied rating	FFO-to-debt	Alternative FFO-to-debt	Implied rating	Closing gearing (FY30)
Base case	1.7x	Baa1	9.9%	9.0%	BBB+	61.9%
Totex	1.3x	Baa2	8.0%	7.2%	BBB	69.9%
ODIs	1.5x	Baa1	9.2%	8.4%	BBB	63.2%
Low inflation	1.6x	Baa1	9.4%	9.2%	BBB+	65.8%
Deflation	1.6x	Baa1	9.3%	9.0%	BBB+	65.4%
High inflation	1.7x	Baa1	10.6%	8.8%	BBB	58.1%
Bad debt	1.6x	Baa1	9.8%	9.0%	BBB+	62.0%
Cost of new debt	1.5x	Baa2	9.3%	8.4%	BBB	63.3%
Financial penalty	1.6x	Baa1	9.4%	8.6%	BBB	62.8%
P50 performance without risk mitigations	**0.9x**	**Baa3 or Ba1**	**6.5%**	**5.7%**	**BBB- or BBB+**	**69.6%**
P50 performance with risk mitigations	**1.5x**	**Baa2**	**9.0%**	**8.2%**	**BBB**	**63.7%**

Source: Southern Water analysis.
Note: Judgement has been applied where there is no published guidance at certain metric levels.

Under the most severe individual downside scenario, totex underperformance, credit metrics would be significantly below guidance for Baa1/BBB+ and imply a rating of Baa2/BBB. Closing AMP8 gearing would rise to 69.9% and an equity injection of £1.4 billion would be required to reduce gearing to the notional assumption of 55% and support credit metrics commensurate with a Baa1/BBB+ rating.

Absent new equity, under the totex and P50 performance (with and without risk mitigation) scenarios, the average AICR falls below a level commensurate with Baa1 rating from Moody's. In the case of the unmitigated P50 scenario, the AICR may be insufficient to support a Baa3 rating. Furthermore, under the ODI, high inflation, cost of new debt and financial penalty scenarios, the average FFO-to-debt ratio falls below a level commensurate with a BBB+ rating with S&P – in the case of high inflation, this is driven by higher accretion on index-linked debt which has a significant impact on the numerator. Under all scenarios, even high inflation, closing AMP8 gearing is higher than the 55% notional level, absent new equity.

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Table 7 sets out the equity requirement to maintain notional gearing in line with the 55% assumption for each of the specified downside scenarios. It presents the resultant credit metrics across AMP8 and implied rating. In some cases, the quantum of new equity is insufficient to return metrics to levels commensurate with guidance for a rating of Baa1/BBB+.

Table 7: Forecast AMP8 credit metrics across the modelled downside scenarios and indicative rating, assuming equity injections to maintain 55% closing gearing

Scenario	Equity requirement	AICR	Implied rating	FFO-to-debt	Alternative FFO-to-debt	Implied rating
Base case	£0.6bn	1.8x	A3	11.2%	10.3%	BBB+
Totex	£1.4bn	1.6x	Baa1	10.2%	9.3%	BBB+
ODIs	£0.7bn	1.7x	Baa1	10.7%	9.8%	BBB+
Low inflation	£0.9bn	1.8x	A3	11.2%	10.9%	BBB+
Deflation	£0.9bn	1.8x	A3	11.2%	10.9%	BBB+
High inflation	£0.3bn	1.8x	A3	11.1%	9.2%	BBB+
Bad debt	£0.6bn	1.8x	A3	11.1%	10.2%	BBB+
Cost of new debt	£0.7bn	1.7x	Baa1	10.8%	9.9%	BBB+
Financial penalty	£0.7bn	1.7x	Baa1	10.8%	10.0%	BBB+
P50 performance without risk mitigations	**£1.4bn**	**1.0x**	**Baa3**	**8.3%**	**7.4%**	**BBB**
P50 performance with risk mitigations	**£0.8bn**	**1.6x**	**Baa1**	**10.5%**	**9.6%**	**BBB+**

Source: Southern Water analysis. Note: Judgement has been applied where there is no published guidance at certain metric levels. Equity injection is gross i.e. does not deduct dividends in line with the average yield assumed. Due to the impact of high inflation in reducing gearing, the calculated equity injection to 55% notional gearing is proportionately larger for the low inflation and deflation scenarios. Consequently, the AICR does not appear better for the high inflation scenario.

Equity requirement to maintain 55% gearing throughout AMP8 under a range of presented downside scenarios ranges from £0.3-1.4 billion. In most cases, new equity serves as a powerful mitigation to ensure that the notional company stays financially resilient. In the case of the P50 performance scenario without risk mitigation, however, even £1.4 billion of equity is insufficient to improve AICR to a level above that commensurate with Baa3 from Moody's.

While introduction of equity injections does help relieve the notional company's financeability constraints under most of the downside scenarios and so helps with financial resilience, it is highly uncertain whether required equity will be available in practice, given the misalignment of the risk and return under PR24 FM.

Ofwat's approach is to assess financeability of the plan by reference to the notional capital structure rather than the actual capital structure and to assess resilience by the reference to the actual company. We recognise that our actual capital structure is different from the notional company, due to both the level of gearing and the proportion of index-linked debt. We agree that any financeability and resilience issues arising due to the differences between the notional and our actual capital structure are for us to manage.

However, if financial resilience issues arise for the notional company under the plausible performance scenarios, this provides clear signals about the allocation of excessive risk and/or provision of insufficient returns to the sector. If the notional company struggles to remain financially resilient under the unmitigated P50 performance scenario, it is reasonable to expect that any of the actual companies also would. If the notional company's risk and return are misaligned preventing it from securing fresh equity, this would inevitably drive similar outcomes for us as well.

Section 2: Actual company financeability

2. Executive summary

We assessed actual company financeability with reference to the actual capital structure with opening gearing of around 70% and assuming neutral performance on totex, retail, performance commitments, and cost of debt, which is consistent with disregarding the risk inherent in the PR24 incentive package.

For the purpose of our assessment, financeability is defined as the ability to generate sufficient cashflow in each year of AMP8 such that credit metrics meet the thresholds commensurate with a Baa1/BBB+ credit rating. This level is consistent with the guidance in the PR24 FM as it is at least two notches above the minimum investment grade rating. The cost of capital parameters used for this assessment are also consistent with the PR24 FM, updated to reflect the recent changes in market variables, with the point estimate of unlevered beta and TMR at the top of the range, reflecting the large scale and increased complexity of our capital programme which increases our exposure to systematic risk. There are strong arguments that those parameters should be set differently, as set out in our technical annex on cost of capital.[7]

In this assessment, there has been no reprofiling of PR24 expenditure and no advancement of cashflows into AMP8 has been assumed from use of PAYG and RCV run-off as financeability levers (consistent with the notional geared assessment). Revenues used for this assessment include the impact of reconciliation adjustments relating to prior periods and the grants and contributions included within the PR24 revenue requirement are excluded from revenues and included within net capital expenditure. The proportion of index-linked debt is assumed to average 52% over the AMP8 period. Dividend has been taken from the notional company average dividend yield of 2% (reflecting the significant real RCV growth in our business plan) and simply scaled down to reflect the higher level of gearing of the actual company.

We used the company actual geared model to undertake the financeability assessment. This reflects the construction of key financial ratios applicable to Southern Water where debt covenant interest ratios are operating cash flow based rather than FFO based. No changes have been made to opening gearing, other than the PR24 reconciliation adjustments included in PR24, and no changes have been made to the PR24 inputs.

Under these assumptions, the business plan is financeable on an actual basis at the target level of credit rating of Baa1/BBB+. Forecast credit metrics are within the rating agencies' guidance for Southern Water, a water company which benefits from structural enhancements.

Table 8: Key financial ratios of the Actual geared company (3.77% Wholesale Ofwat cost of capital)

	Covenant level					AMP8				
YE 31 March, £m	PFI	Trigger	Default	Guidance	2025	2026	2027	2028	2029	2030
RCV					6,992	7,990	8,923	9,669	10,282	10,688
SWS metrics										
Class A Debt / RCV	75.0%	75.0%	95.0%		74.4%	72.6%	72.9%	72.7%	72.0%	70.8%
Cash Headroom to PFI (£m)					42	191	188	222	310	453
Cash Headroom to Default (£m)					1,441	1,789	1,972	2,156	2,366	2,591
Class A Adjusted ICR (x)		1.30x			0.82x	2.03x	2.21x	2.30x	2.19x	1.91x
Cash Headroom (£m)					(56)	110	177	237	230	179
Class A ICR (x)			1.60x		3.91x	4.38x	4.21x	4.12x	3.99x	3.58x
Cash Headroom (£m)					273	420	512	599	617	579
Class A PMICR (x)			1.00x		2.16x	2.25x	2.57x	2.72x	2.82x	2.57x
Cash Headroom (£m)					137	189	308	408	471	459
Class A average adjusted ICR (x)		1.40x			0.82x	2.13x	2.15x	2.13x	2.05x	1.91x
Moody's - Adjusted gearing				75.0%	75.3%	73.2%	73.3%	72.9%	71.9%	70.7%
S&P - OpCo FFO / Debt				8.0%	4.1%	5.8%	7.8%	8.4%	8.4%	8.2%
Fitch - Adjusted Gearing				77.0%	76.8%	77.0%	76.7%	76.1%	75.0%	73.7%
Fitch adj. cash AICR				1.40x	0.83x	1.21x	1.78x	1.84x	1.77x	1.70x
Distribution					-	(43)	(49)	(54)	(59)	(64)
New equity					-	-	-	-	-	-

Source: Southern Water analysis.

We make the following observations:

- The Plan is financeable and key financial ratios are considerably stronger than the PR19 period. Current credit ratings are Baa3/BBB+/BBB. Forecast financial ratios for the PR24 period are supportive of a recovery in the credit ratings to target levels. We recognise that any recovery in the ratings will also need to be supported by an overall risk that is of an acceptable level, along with improvements in our operational performance.

- All debt covenant ratios have positive financial headroom to Trigger and Default thresholds and illustrate an improving trend over the period.

- Financial ratios are commensurate with an investment grade credit rating sufficient to maintain access to the capital markets to efficiently finance the business.

- Key credit rating ratios meet targets commensurate with Baa1/BBB+ but financial headroom may be sensitive to risk.

It is important to note that while key financial ratios are the focus of the assessment, they only represent 35% to 40% of a credit rating assessment. The remainder of the assessment comprises the regulatory framework and operational risk.

For the actual geared financeability assessment we have assumed that:

- The regulatory framework continues to be stable, transparent, and supportive of water sector ratings.

- A recovery in current credit ratings (Baa3 / BBB / BBB+) supported by delivery of the Southern Water turnaround plan. Southern Water received new equity of £905 million during the AMP7 period which is expected to improve operational resilience.

- Supportive capital markets. This will be essential in providing the £4.6 billion of finance required both to finance the PR24 Plan and to refinance maturities during the period.

We agree that it is also important to recognise risk within the Plan when assessing financial resilience. Credit rating agencies will also assess risk as part of the credit rating process.

We have applied the Ofwat Final Methodology risks to the actual capital structure, which is aligned to the PR24 Plan, including the 3.73% Wholesale Ofwat cost of capital.

The risk scenarios are summarised below.

Table 9: Downside scenarios modelled for the actual company

Scenario	Description
1. **Totex**	Totex underperformance (10% of totex) over 5 years
2. **ODIs**	ODI underperformance payment (3% of RORE) applied in year 2
3. **Low inflation**	Inflation 2% below the base case assumption for each year of AMP8
4. **Deflation**	Deflation of -1% for two years, followed by return to target over the remainder of AMP8
5. **High inflation**	A 10% spike in inflation with 2% increase in RPI-CPIH wedge
6. **Bad debt**	20% increase in bad debt applied in years 2 and 3
7. **Cost of new debt**	Cost of new debt 2% higher than the base case assumption throughout AMP8
8. **Financial penalty**	Penalty equivalent to 6% of appointee revenue applied in year 2

Source: Southern Water analysis.

The results of the stress tests are summarised in the table below. The output in the table focuses upon key debt covenant ratios and key credit rating agency ratios for Southern Water:

Table 8: Key ratios used for the actual company

Key ratio	Description
Class A Debt/RCV %	Debt covenant gearing ratio. Default at 95% but lender consent required for increase above 75%
Class A Adjusted ICR (x)	Debt covenant interest cover ratio. Dividend restriction if breached
Class A ICR (x)	Debt covenant interest cover ratio, Default if breached
Class A PIMCR (x)	Debt covenant interest cover ratio, Default if breached
Class A average adjusted ICR (x)	Debt covenant interest cover ratio. Dividend restriction if breached
Moody's - Adjusted Gearing %	Rating Agency ratio
S&P - FFO/Debt %	Rating Agency ratio
Fitch - Adjusted Gearing %	Rating Agency ratio

Source: Southern Water analysis.

The results demonstrate the business plan is financeable on an actual basis for many of the stress scenarios. The actual company is most at risk from stress tests related to the size of the totex plan where further management and shareholder action may be required beyond any restriction of dividends. It is also important to note our assessment of the risk in the plan which goes beyond the scale of the stress test scenarios. We have, therefore, added combined risk scenarios, the result of which would also require further management and shareholder action beyond any restriction of dividends.

Table 10: Downside scenarios modelled for the actual company (with 3.77% Wholesale Ofwat cost of capital)

			Closing gearing, average ICR Amp 8 Metrics - 3.83% WACC									Combined	
	Threshold	AMP7	Base Case	Sc. 1	Sc. 2	Sc. 3	Sc. 4	Sc. 5	Sc. 6	Sc. 7	Sc. 8	C.1	C.2
Class A Debt/RCV %	75.0	74.4	70.8	74.9	72.2	73.2	71.9	69.3	70.9	72.9	71.6	77.2	78.9
Class A Adjusted ICR (x)	1.3	0.8	2.1	1.9	2.0	2.1	2.1	2.2	2.1	1.8	2.1	1.5	1.7
Class A ICR (x)	1.6	3.9	4.1	3.8	3.9	4.0	4.0	4.1	4.0	3.5	4.0	3.1	3.6
Class A PIMCR (x)	1.0	2.2	2.6	2.2	2.5	2.5	2.6	2.6	2.6	2.2	2.6	1.8	2.0
Class A average adjusted ICR (x)	1.4	0.8	2.1	1.8	1.9	2.0	2.0	2.1	2.1	1.7	2.1	1.3	1.6
Moody's - Adjusted Gearing %	75.0	75.3	70.7	74.8	72.1	73.2	71.8	69.2	70.8	72.9	71.6	77.2	78.9
S&P - FFO/Debt %	>[6/]8	4.1	7.7	6.6	7.3	8.7	8.3	6.2	7.7	7.0	7.6	3.9	7.2
Fitch - Adjusted Gearing %	77	76.8	73.7	76.4	75.1	76.1	75.0	72.0	73.8	75.9	74.6	78.5	80.2
Fitch - Adjusted ICR (x)	1.4	0.8	1.7	1.6	1.6	1.8	1.8	1.5	1.6	1.4	1.6	1.2	1.6
Dividend		0	269	0	269	269	269	269	269	269	269	0	0
New equity for 72% Debt/RCV (£m)		905	0	309	16	121	0	0	0	101	0	628	673

Source: Southern Water analysis.

We make the following observations:

- Scenario 1, Totex overspend of 10%, is the most severe scenario. A 10% overspend has a disproportionate effect on the company due the significant increase in the size of the totex in the plan. Allowed return levels generated from the existing RCV are therefore not sufficient to cover an overspend of this size. This would require further management and shareholder action beyond any restriction of dividends. This highlights the need to for the risk of the national company to be mitigated to align it with the risk levels set in the Ofwat methodology.

- Restricting dividends, of £269 million within the Plan is sufficient to mitigate risk in scenarios 2, 3, and 7.

- Scenario 5, high inflation, is positive for gearing but places pressure on ratios which include an adjustment for inflation accretion of financial instruments. This should not put pressure on credit ratings given the forecast recovery in inflation, and ratios, by 2030.

- Scenarios 4, 5, 6, and 8, can be accommodated within a stress test gearing target of 72%.

- Scenario C1, combines scenario 1 (10% totex overspend) with scenario 2 (ODI penalty), scenario 5 (high inflation) and scenario 7 (increased interest cost). As with the result of Scenario 1, a 10% overspend has a disproportionate effect on the company due the significant increase in the size of the totex in the plan. Allowed return levels generated from the existing RCV are therefore not sufficient to cover an overspend of this size. This combined scenario would also require further management and shareholder action beyond any restriction of dividends. This highlights the need for the risk of the notional company to be mitigated to align it with the risk levels set in the PR24 FM.

- Scenario C2, combines scenario 1 (10% totex overspend) with scenario 2 (ODI penalty), and scenario 3 (low inflation). As with the result of Scenario 1, a 10% overspend has a disproportionate effect on the company due the significant increase in the size of the totex in the plan. Allowed return levels generated from the existing RCV are therefore not sufficient to cover an overspend of this size. This combined scenario would also require further management and shareholder action beyond any restriction of dividends. This highlights the need to for the risk of the national company to be mitigated to align it with the risk levels set in the Ofwat methodology.

A separate Risk Technical Annex, a separate Cost of Capital Technical Annex, and the Notional geared financeability section of this Annex, set out our arguments for why the Southern Water cost of capital should be set to 4.58% to compensate for the high level of risk within the Plan, the negative skew of risk within the Plan, and how the Plan wholesale Ofwat cost of capital, of 3.77%, will not allow an efficient company to earn a reasonable rate of return.

We have, therefore, tested actual financeability by updating the Southern Water cost of capital to the level we believe it should be set to reflect the level of risk faced by the notional geared company and to also reflect the funding cost faced by the notional geared company.

The results demonstrate the business plan is financeable on an actual basis at the target level of credit rating of Baa1/BBB+. Forecast credit metrics are within the rating agencies' guidance for Southern Water, a water company which benefits from structural enhancements.

Table 11: Key financial ratios of the Actual geared company (4.58% Southern Water Wholesale cost of capital)

	Covenant level					AMP8				
YE 31 March, £m	PFI	Trigger	Default	Guidance	2025	2026	2027	2028	2029	2030
RCV					6,992	7,990	8,923	9,669	10,282	10,688
SWS metrics										
Class A Debt / RCV	75.0%	75.0%	95.0%		74.4%	72.1%	71.8%	71.0%	69.8%	67.9%
Cash Headroom to PFI (£m)					42	233	285	382	540	761
Cash Headroom to Default (£m)					1,441	1,831	2,070	2,316	2,596	2,898
Class A Adjusted ICR (x)		1.30x			0.82x	2.30x	2.50x	2.59x	2.50x	2.21x
Cash Headroom (£m)					(56)	151	233	302	302	258
Class A ICR (x)			1.60x		3.91x	4.65x	4.53x	4.44x	4.34x	3.92x
Cash Headroom (£m)					273	461	569	664	690	661
Class A PMICR (x)			1.00x		2.16x	2.53x	2.87x	3.02x	3.15x	2.89x
Cash Headroom (£m)					137	230	364	471	541	536
Class A average adjusted ICR (x)		1.40x			0.82x	2.42x	2.45x	2.43x	2.35x	2.21x
Moody's - Adjusted gearing				75.0%	75.3%	72.7%	72.2%	71.2%	69.7%	67.8%
S&P - OpCo FFO / Debt				8.0%	4.1%	6.7%	8.8%	9.5%	9.6%	9.6%
Fitch - Adjusted Gearing				77.0%	76.8%	76.5%	75.6%	74.4%	72.8%	70.8%
Fitch adj. cash AICR				1.40x	0.83x	1.48x	2.03x	2.09x	2.03x	1.97x
Distribution					-	(43)	(49)	(54)	(59)	(64)
New equity					-	-	-	-	-	-

Source: Southern Water analysis.

We make the following observations:

- Improved forecast financial ratios with our proposed Wholesale Southern Water cost of capital of 4.58%.
- This plan is financeable and key financial ratios are considerably stronger than the PR19 period. Current credit ratings are Baa3/BBB+/BBB. Forecast financial ratios for the PR24 period are supportive of a recovery in the credit rating. It is, however, difficult to predict the pace of recovery in the credit ratings given the need to also demonstrate an improvement in operational performance (from the turnaround plan).
- All debt covenant ratios have positive financial headroom to Trigger and Default ratios, and closing debt/RCV at March 2030 is comfortable at c. 68%.
- Financial ratios commensurate with an investment grade credit rating sufficient to maintain access to the capital markets in order to efficiently finance the business.
- Key credit rating ratios meet targets commensurate with Baa1/BBB+.

We have also carried out the stress tests, set out in the PR24 FM, against the plan with our proposed Wholesale Southern Water cost of capital of 4.58%. The table below summarises the stress tests.

The results demonstrate the business plan is financeable on an actual basis for all, but the stress tests related to the size of the totex plan where further management and shareholder action may be required beyond any restriction of dividends. It is also important to note our assessment of the risk in the plan which goes beyond the scale of the stress test scenarios. We have, therefore, added combined risk scenarios, the result of which would also require further management and shareholder action beyond any restriction of dividends.

Table 12: Downside scenarios modelled for the actual company (with 4.58% Southern Water Wholesale cost of capital)

			Closing gearing, average ICR Amp 8 Metrics - 4.58% WACC									Combined	
	Threshold	AMP7	Base Case	Sc. 1	Sc. 2	Sc. 3	Sc. 4	Sc. 5	Sc. 6	Sc. 7	Sc. 8	C.1	C.2
Class A Debt/RCV %	75.0	74.4	67.9	74.7	69.1	70.2	69.0	66.4	68.0	70.0	68.8	74.2	75.7
Class A Adjusted ICR (x)	1.3	0.8	2.4	2.1	2.3	2.4	2.4	2.5	2.4	2.1	2.4	1.8	2.0
Class A ICR (x)	1.6	3.9	4.4	4.0	4.3	4.3	4.3	4.4	4.4	3.7	4.3	3.4	3.9
Class A PIMCR (x)	1.0	2.2	2.9	2.4	2.8	2.8	2.9	2.9	2.9	2.4	2.9	2.0	2.3
Class A average adjusted ICR (x)	1.4	0.8	2.4	2.1	2.2	2.3	2.3	2.4	2.4	1.9	2.3	1.6	1.9
Moody's - Adjusted Gearing %	75.0	75.3	67.8	74.7	69.1	70.2	68.9	66.4	68.0	70.0	68.7	74.1	75.7
S&P - FFO/Debt %	>[6/]8	4.1	8.9	7.5	8.4	9.9	9.4	7.3	8.8	8.1	8.7	5.0	8.3
Fitch - Adjusted Gearing %	77	76.8	70.8	76.2	72.1	73.1	72.1	69.1	70.9	73.0	71.7	75.4	77.0
Fitch - Adjusted ICR (x)	1.4	0.8	1.9	1.8	1.8	2.1	2.0	1.7	1.9	1.6	1.9	1.4	1.9
Dividend		0	269	269	269	269	269	269	269	269	269	0	0
New equity for 72% Debt/RCV (£m)		905	0	289	0	0	0	0	0	0	0	260	364

Source: Southern Water analysis.

We make the following observations:

- Scenario 1, Totex overspend of 10%, is the most severe scenario, especially given the size of the PR24 plan as explained above. Management and shareholder action would be required to maintain credit ratings with this level of overspend.
- Financial headroom within the Plan is sufficient to accommodate the other ratios.
- Scenario C1, combines scenario 1 (10% totex overspend) with scenario 2 (ODI penalty), scenario 5 (high inflation) and scenario 7 (increased interest cost). As with the result of Scenario 1, a 10% overspend has a disproportionate effect on the company due the significant increase in the size of the totex in the plan. The debt/RCV of this combined scenario is within the 75% debt covenant level but would likely require further management and shareholder action beyond any restriction of dividends.
- Scenario C2, combines scenario 1 (10% totex overspend) with scenario 2 (ODI penalty), and scenario 3 (low inflation). As with the result of Scenario 1, a 10% overspend has a disproportionate effect on the company due the significant increase in the size of the totex in the plan. This combined scenario would also require further management and shareholder action beyond any restriction of dividends.

We did not factor in the credit risk related to implementation of DPC in our assessment of the actual company financeability due to uncertainty of the severity of the impact but flag the negative impact it is likely to have given the size of DPC in our plan. The current expectation is that under the accounting rules DPC projects will be recognised as a lease liability, with a corresponding right of use asset on the balance sheet. Credit rating agencies have varying approaches to dealing with this issue, including the extreme one to include the lease liability in debt but not increase respective RCV, and the more balanced one where both debt and RCV are adjusted upwards. Under either of these scenarios credit metrics will be worse than the completely de-consolidated approach, hence negatively impacting credit rating outcomes and financeability.