Anglian Water

9A. NOTIONAL COMPANY FINANCEABILITY

Draft Determination Representation, August 2019

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PR19 – Notional Company Financeability

A discussion paper: August 2019 Update Annex to our 2018 paper on Notional Company Financeability

Consistency between the Ofwat indicative WACC and financial ratios for the assumed credit rating for the notional company

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1. Key changes by Ofwat since we published our 2018 paper [1]

- *Ofwat published its Draft Determination (DD) with an indicative WACC of 2.19% in July 2019, revised down from its previous indicative 2.40% WACC. This includes:*

  - *Reduction to the cost of embedded debt, whilst assuming a higher proportion of embedded debt*
  - *Reduction in assumed cost of equity*
  - *Minor change to the cost of new debt*

- *Ofwat indicates a further reduction of 37bps is likely at Final Determination (FD). The WACC at the Draft Determination is driven by the February cut-off date used for market data.*

- *As we set out in our 2018 paper [1], Ofwat's early view of WACC (2.4%) did not achieve a Baa1 rating for the notional company. However, we considered that, by taking expected legacy rewards from AMP6 into account, our notional ratios could be achieved at the very bottom end of the Baa1 range.*

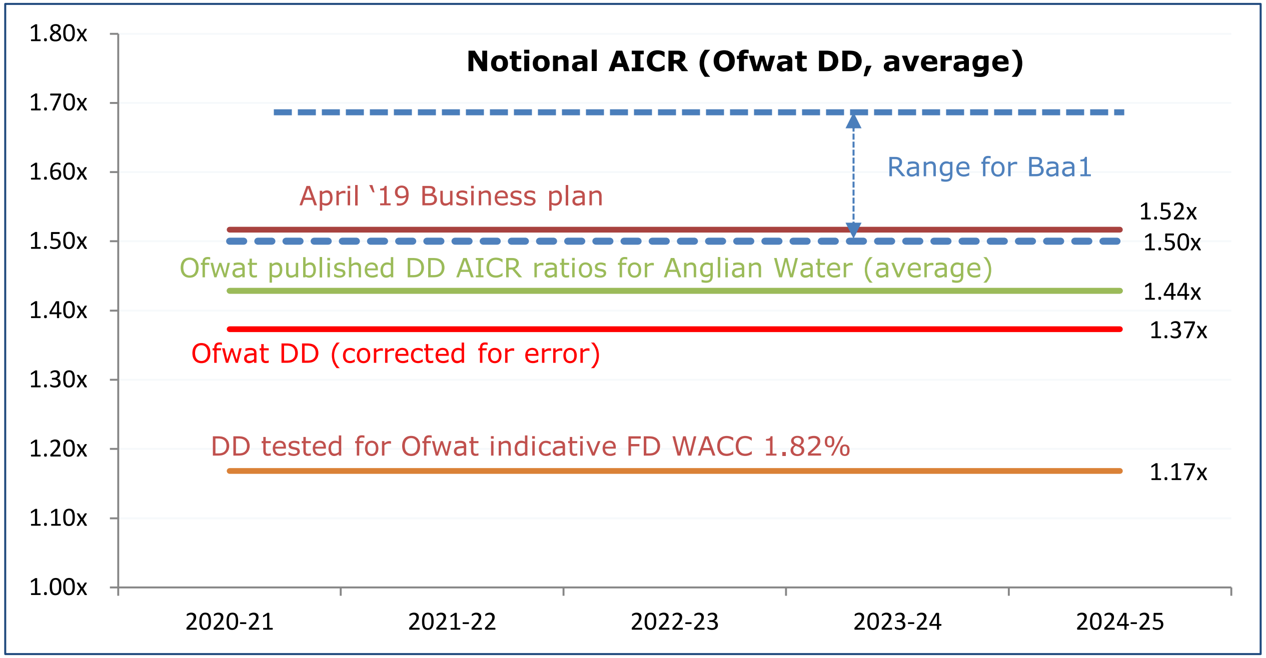
- *The Draft Determination introduces significant new risks with cost challenges across the sector: an increased assumption of the 'halo' effect and asymmetric downside risks due to RORE ranges along with a WACC which achieves the bottom half of the Baa2 credit rating range (1.30x-1.50x).*

- *A company that is rated at the Baa2 level could not be expected to achieve the level of financing indicated by the pricing of the iBoxx non-financial index that Ofwat has chosen, which reflects an average rating of A3/Baa1.*

- *In the light of the above, we conclude that a notional company is not therefore financeable at a WACC of 2.19% and with the balance of risk represented by the Draft Determination. A notional company would clearly also not therefore be financeable at the lower WACC of 1.82% that Ofwat suggests.*

[1] ANH (2018) , 'PR19 – Notional Company Financeability'

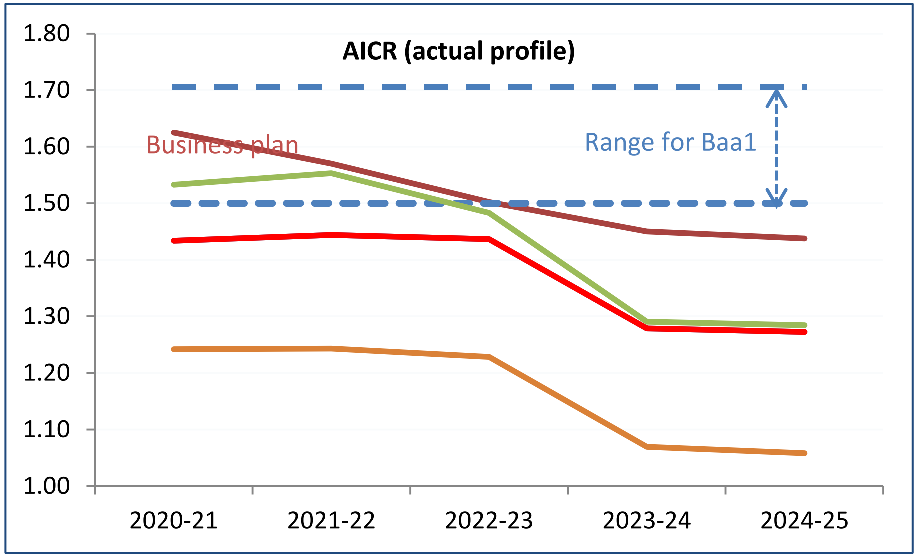
1.1. Draft Determination Notional AICR Ratios appear incorrect

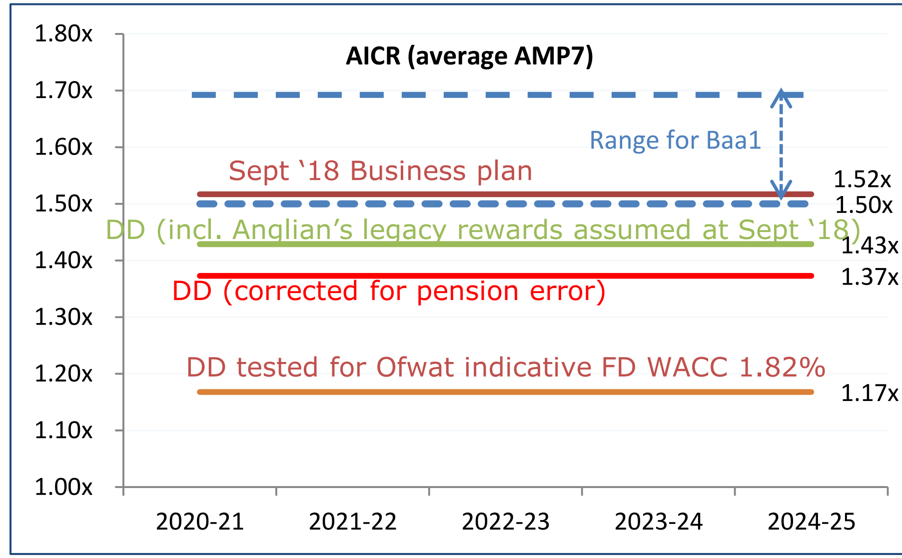


- *Draft Determination (DD) financial model calculates notional AICR ratios of 1.44x excluding any legacy adjustments on a WACC of 2.19%. Our previous paper showed a simple relationship between the cost of equity and the notional financeability and 2.19% would achieve only 1.37x AICR.*

- *We have since found that the DD financial model assumes a recovery of pension deficit through the price control revenues but does not deduct them as costs when assessing financeability thereby inflating AICR ratios. Once this error is corrected, the Ofwat published DD AICR ratio falls from 1.44x to 1.37x*

1.2. Update on Notional Company Adjusted Interest Cover Ratios.





- *Both Moody's [2] and Fitch [3] advise an AICR range between **1.50x-1.70x** to achieve Baa1 rating. Rating agencies now advise on targeting 'middle' of this range for a Baa1 rating.*

- *Ofwat's DD indicative WACC only achieves 1.37x (below the minimum 1.50x for Baa1) which is at the lower end of the range required for a Baa2 rating.*

- *Ofwat 'guidance' for a further cut of 37bps at the FD reduces AICR to 1.17x (expected to be sub-investment grade)*

- *For a notional company with a significant investment programme, unprecedented efficiency challenges, asymmetric ODI incentives, significant regulatory change (e.g. transition from RPI to CPIH) and facing general macroeconomic risks including Brexit, the Ofwat DD provides no headroom on the notional ratios.*

[2] Moody's (2019) , 'Ofwat tightens the screws further, July 2019'
[3] Fitch (2019), 'Ofwat Price Review Intensifies Pressure on UK Water Sector, July 2019'

1.3. Why should the notional company target at least Baa1?

	Long term ratings			
	Moody's	S&P	Fitch	ICR Range
Investment Grade	A3	A-	A-	1.7 - 2.0
	Baa1	BBB+	BBB+	1.5 - 1.7
	Baa2	BBB	BBB	1.3 - 1.5
	Baa3	BBB-	BBB-	

Average rating iBoxx non-financial index

Ofwat DD Notional company ratios

- *Resilience, including financial resilience, is a primary duty for Ofwat. It is key for all stakeholders, particularly customers, that the 'notional company' is financially resilient in the long-run.*

- *A key question is: could a notional company access debt markets at rates that match its funding criteria set by Ofwat i.e. the average of iBoxx non-financial index, and therefore be financeable in the long-run?*

- *Until PR09, Ofwat targeted A3/A- credit rating in their assessment of business plan financeability. At PR19 (and PR14) Ofwat asked companies to propose a credit rating. Those companies that targeted below Baa1 were asked to provide further evidence. Ofwat said:*

  > *"At the initial assessment stage we set actions for Portsmouth Water who targeted three notches headroom to the minimum investment grade (A3 (S&P)) and four companies that targeted one notch headroom (BBB, Baa2 and/or BBB (Fitch, Moody's, S&P)) in their original business plans. We asked each of the companies to provide further evidence to support its view that this target is reasonable for the notional company in the context of its proposed investment and maintaining long-term resilience. In revised business plans each of the companies now targets two notches headroom."*

- *This suggests that Baa1 provides the minimum credit rating target for the notional company.*

- *In line with the arguments in our 2018 paper on these same matters, our view remains that the notional company should target at least a Baa1 credit rating.*

If costs are set at Baa2 level (higher, due to lower rating) and revenues are set at Baa1 level (lower, based on higher rated IBoxx index), the notional company would not be sustainable in the long-run. Given that the iBoxx index assumed by Ofwat reflects an average rating of Baa1 or higher, it is essential in our view for the notional company to achieve at least Baa1 credit metrics.

1.4. PAYG rate – further divergence from rating agencies:

- *A key difference between Ofwat's views on financeability analysis and the credit rating agencies is the use of PAYG (Pay As You Go).*

- *Rating agencies have said they do not see the use of PAYG[2] as a legitimate mechanism to bring forward revenues to improve financeability. Moody's said:*

> *"The regulator views the adjustment of PAYG and run-off rates as economically equivalent to the change in indexation measures, because they involve a trade-off between fast money (received through revenue through the detriment of RCV growth) and slow money (increased RCV growth with lower short-term revenue). However, we believe that there is a key difference: the switch to CPIH is a permanent change that applies to all companies in a similar way, while PAYG and run-off rates are partly within companies' control and can change between periods, distorting comparability between companies and over time. We will continue to remove the regulatory depreciation as well as excess PAYG to calculate company-specific AICR ratios."*

- *In July 2019, Fitch also announced that they will remove any PAYG from the ratios to calculate underlying interest coverage. [3] Fitch also said that they expect the notional company to achieve roughly 1.6x to be rated at Baa1 level (middle of their range from 1.5x-1.7x).*

- *Companies rely heavily on credit rating agencies, who set their credit rating level. A higher credit rating then allows them to access global markets and obtain lower cost debt. Obtaining the best interest rates benefits customers as ultimate costs are lower.*

Ofwat takes the view that PAYG can be used to improve financeability if the level of WACC does not provide sufficient interest cover. Rating agencies do not agree. Given that rating agencies decide credit worthiness, it follows that companies should take into account rating agency guidance when assessing financeability.

[2] Moody's (2019) , 'Ofwat tightens the screws further, July 2019'
[3] Fitch (2019), 'Ofwat Price Review Intensifies Pressure on UK Water Sector, July 2019'

1.5. History of financeability assessments at previous price controls

	PR04	PR09	PR19 (indicative)	PR19 (Draft Determination)
Assume RCV	£100	£100	£100	£100
Assumed gearing	55%	57.5%	60.0%	60.0%
Assumed RPI linked debt (proportion of total)	*0%*	*30%*	*33% **	*33% **
Assumed cost of debt & inflation (PR04 to PR14- Ofwat FD assumption)	£55 x (4.3% + 2.5%)	£40.2x (3.6%+ 2.8%) + 17.5*(3.6 %) =2.6+0.6	£40.2x (1.33% + 3%) 4.36%+ £19.8 x (1.33%) =1.75+0.26	£40.2x (1.34% + 3%) 4.36%+ £19.8 x (1.33%) =1.75+0.26
Notional Interest	**-£3.74**	**-£3.2**	**-£2.01**	**-£2.02**
Return (cost of capital)	+5.81	+5.1	+2.8 *	+2.64 *
Notional AICR ratio (WACC/Interest)	**1.55x**	**1.59x**	**1.39x (lower than 1.5x)**	**1.31x (1.37x incl retail) (lower than 1.5x)**
Ofwat action to resolve the issue	**Regulator applied Financeability uplifts**	**Assume RPI linked debt**	**Moody's announced removing any PAYG adjustment from the underlying economic element of credit ratios** **All rating agencies have expressed concern on the use of PAYG to solve ratio**	**In July 2019, Fitch also joined Moody's in making clear that they would remove any PAYG before they assess AICR ratios.**
Resultant average WASC AICR ratio	**c1.6x**	**c1.6x**	**1.39 (1.44x incl retail margin)**	**1.31x (1.37x including retail)**

**Wholesale blended, also referenced by Moody's on their research dated 15 Jan 2018. Assumption of 20% RPI linked debt reduces AICR ratios to 1.25x.*

*** Moody's (2013), 'Special Comment: Speed of Money Cannot Address Potential Financeability Concerns, 16 May 2013'*

2. Risks that are <u>not captured</u> in Ofwat's notional company financeability analysis

2.1. Embedded debt – new methodology and swaps disallowed

- *Ofwat has changed the methodology since its 'early view':*
  - *In the 'early view' the point estimate was based on the company-level median based on 'actual costs'. This same statistic is used in the DD as the upper end of the range but the point estimate changed to be based on iBoxx.*
- *Ofwat has excluded the majority of swaps in its assessment of embedded cost of debt. These swaps reflect existing real costs for those companies, that cannot now be avoided. It is worth considering why some of these swaps were taken out and how they have benefitted customers:*
  - *In the 2000's, nominal interest rates were high and real WACC low: to bridge the gap between nominal costs and real funding, companies took index-linked debt. Given the very limited market for index-linked debt at the time, many companies used swaps which provide the same effect as taking a bond.*
  - *This innovation at the time also allowed Ofwat to assume 33% RPI index-linked debt in their assessment of financeabilty and to discharge its financeability duty (see slide 6). Ofwat still makes that assumption. Many water companies still carry those long-dated index-linked swaps. These swaps were economically justified and clearly benefitted customers. These are a prominent part of 'embedded debt' for companies and therefore it is retrospective to remove their cost allowance now.*
- *Derivatives play an important role in the sector. By retrospectively disallowing swap costs, Ofwat would set a precedent that will disincentivise companies from using innovative and lower cost products in the future. The proposed approach would harm customers and be inconsistent with the principles of good economic regulation.*

Decisions to take index-linked derivatives in the early 2000's have directly benefitted customers by helping the regulator assume index-linked debt in the regulatory model and discharge its financeability duty. These long-dated instruments remain part of company's real costs and therefore should be included in the allowance.

2.2. Embedded debt: efficiency or risk taking?

- *Past market evidence shows that pricing of debt for water companies tends to be within a tight band as it is affected more by macroeconomic and regulatory factors and less by company specific factors. Difference in 'embedded cost' tends to reflect tenor, timing and type of debt.*

- *Different companies take different approaches to financing driven by appetite for risk. Some companies choose to take longer dated debt, others may keep a higher proportion of 'floating rate' debt – usually cheaper but by nature more risky. No one approach is "right", but a lower risk appetite will tend to result in more longer dated fixed rate debt.*

- *Crucially though, in the current cycle of lower interest rates, companies that carry longer dated debt tend now to have higher cost of debt. This cannot be seen as inefficiency, as companies did the right thing at the time, and followed regulatory incentives then applying which encouraged them to fix their risk exposure, not rates.*

- *Removing the costs attached to past longer dated instruments penalises companies that simply responded to regulatory incentives at the time. More importantly, water companies build long-term capital assets, it is right for companies to take a longer-term approach to financing.*

- *A number of companies, particularly WOCs, are now exposed to new risks due to CPIH as their majority of embedded costs are linked to RPI. Ofwat's notional company analysis does not capture these risks. Brexit-related currency and therefore inflation risks are at the highest they have been.*

- ***The Civil Aviation Authority has decided to not transition to CPIH for these very reasons.** Water companies are far more exposed to RPI risk than airports due to a higher level of index-linked debt. The move to CPIH therefore introduces a new and significant risk for the notional company – credit rating agencies are responding to these risks with negative outlooks for the sector as a whole.*

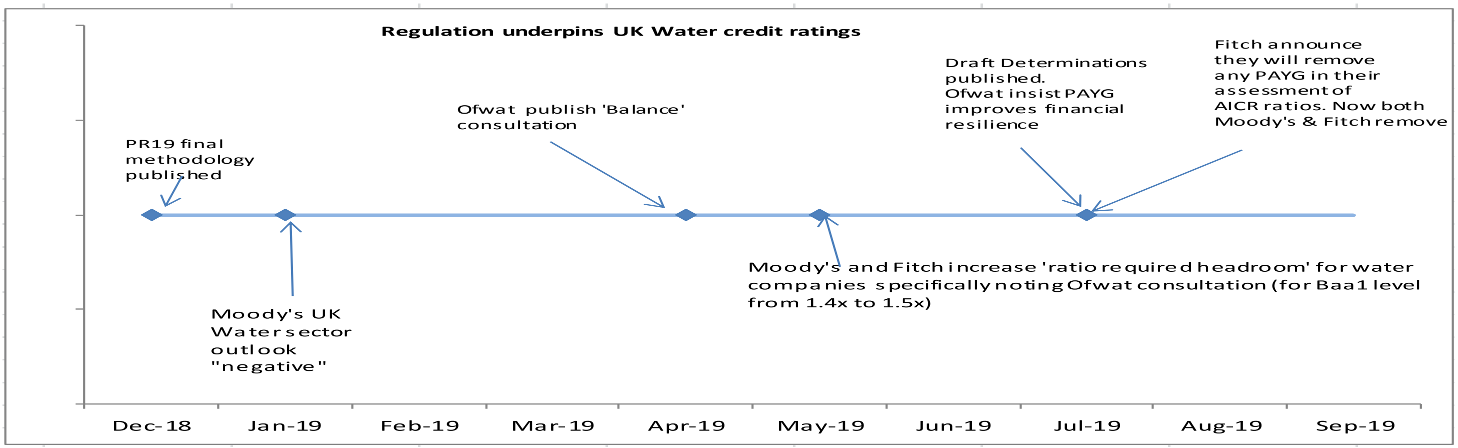
2.3. Ofwat's assumption of a 'halo effect'

- *Ofwat's early view of WACC assumed a 15bps 'halo effect' which reflects an assumption that a notional water company will outperform the iBoxx non-financial index over AMP7 period. In its Draft Determination, Ofwat has increased the assumption of a halo effect from 15bps to 25bps.*

- *A 'Halo' effect is a historic concept, it existed before 2011 and particularly during the Global Financial Crisis when debt investors paid a premium to invest in regulated assets. The CMA said in 2015:*

"Any analysis of the halo effect needs to be treated with some caution, since it depends on factors such as the time period selected for the analysis; the approach taken with any outlier observations; differences between debt in the regulated entity and that at a Group Company level (non-regulated business); together with the approach taken with some debt that has unusual lengths of maturity (either short or very long). A number of factors may influence this reduction, including changes to the credit ratings and capital structures of the DNOs, together with changes to external market conditions. This is illustrated ….where the halo effect is around 45 basis points for debt issued by the DNOs up to the end of 2009, but then there is, on average, no halo effect thereafter". [8]

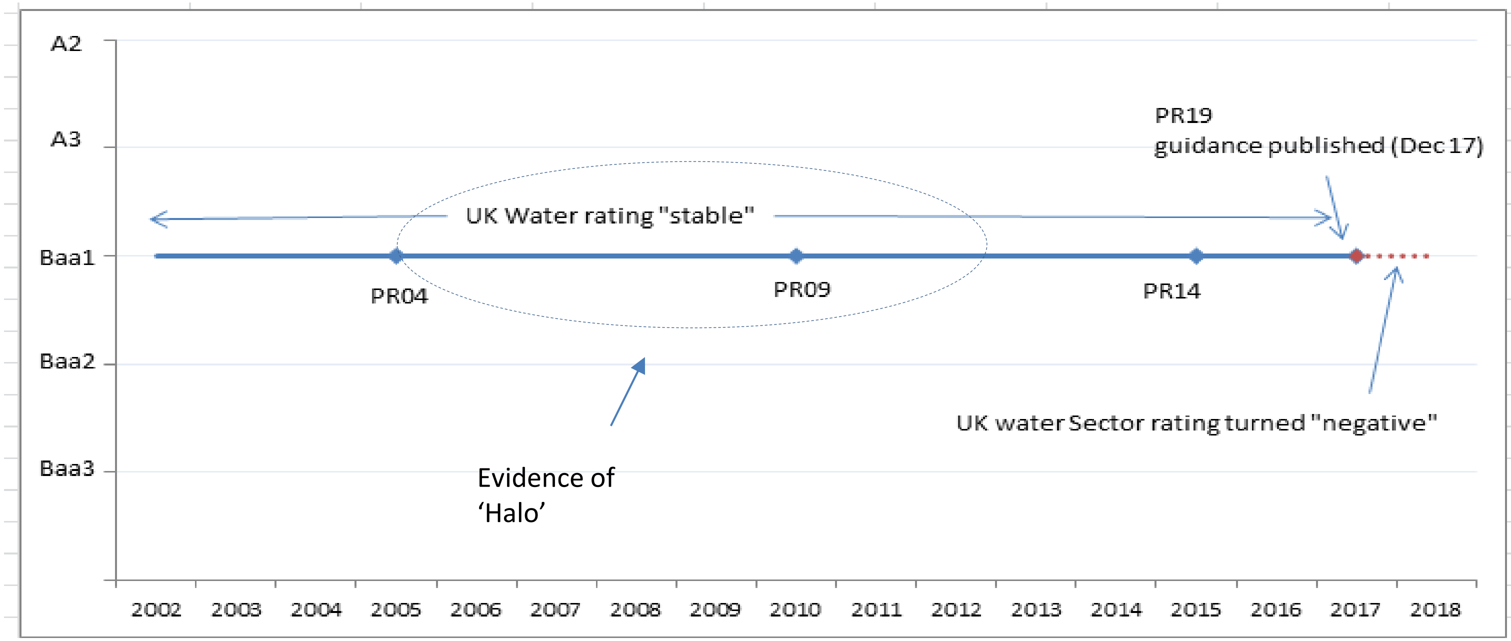
- *It is also important to note that over the last two years credit rating agencies have taken a particularly strong negative view of the sector, directly as a result of continual regulatory changes:*



- *As demonstrated on slide 4, the proposed WACC in the DD would place the notional company at the lower half of Baa2, whilst the assumed cost of debt for a notional company will be at a rating of A3/Baa1. Therefore it is inconsistent to then assume a 'halo' effect of 25bps above the A3/Baa1 debt index.*

[8] 'Paras. 8.48 – 8.50, CMA's Final Determination Bristish gas Trading Limited (2015)'

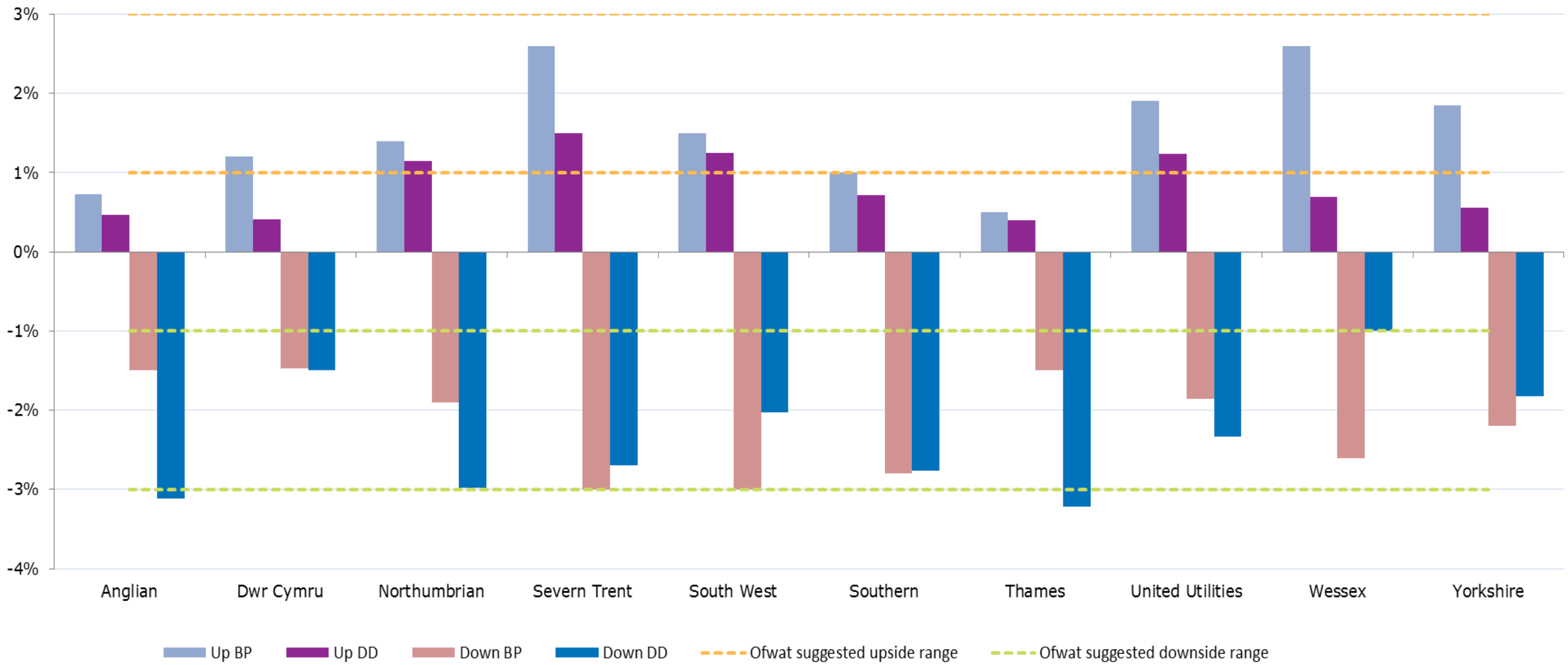
2.4. With the UK water sector now on a negative rating, an assumption of a 'halo' for AMP7 is untenable



- *Water companies have outperformed indices in the past. However, most of that reflects a time when macroeconomic conditions favoured regulated assets and the 'notional company' achieved ratios equivalent to A3 credit rating levels.*

- *Recent actions by credit rating agencies, and a less favourable general regulatory environment makes it more likely that companies will under-perform iBoxx indices in future. The average rating within Ofwat's chosen iBoxx non-financial index is A3. Ofwat's notional financeability test does not capture this likely underperformance.*

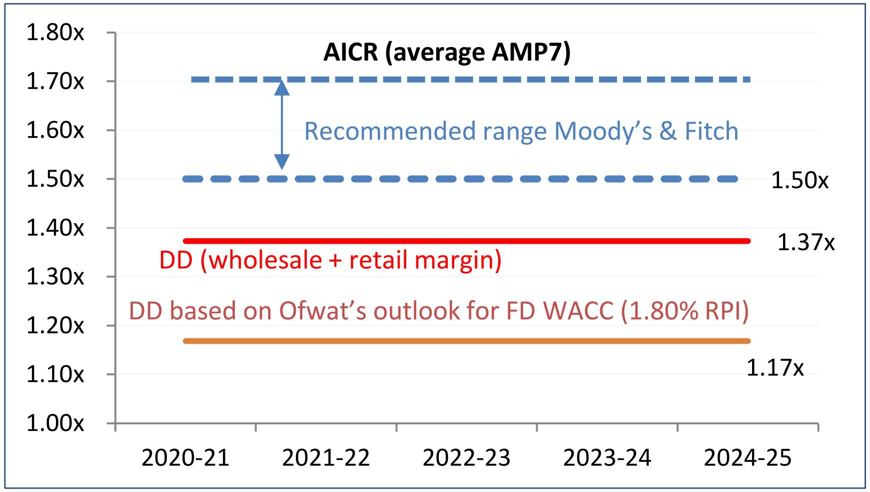
2.5. RORE: Most companies now face significant asymmetric downside risks

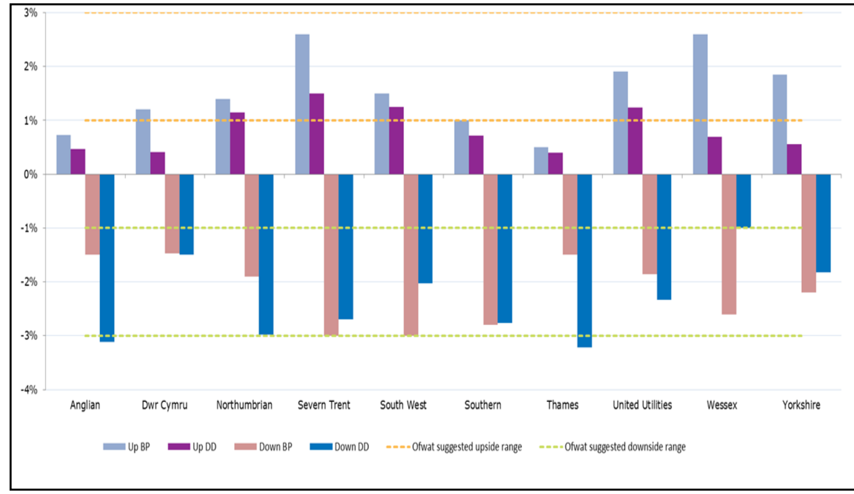


- *Ofwat's push for upper-quartile performance targets with a downside skew on penalties means that an average company, even if improving its performance, will be facing net penalties.* [5] *In the draft determinations, the range for upside reduced, whereas downside has increased significantly.*

[5] Calculations based on draft determination financial models published by Ofwat. Models for fast track companies may not reflect all policy changes on ODIs at the slow track draft determinations.

2.6. Conclusion: A notional company faces significant asymmetric downside risk along with a WACC that does not meet minimum required ratios





Considering the DD position in the round for the notional company:

- *A cost of capital that does not achieve 'minimum' required ratios for Baa1 rating*
- *Upper quartile performance targets and asymmetric downside skew on ODIs means an average company will face penalties*
- *Unprecedented regulatory challenges on:*
  - *Totex plans*
  - *Cost of debt: 25bps 'Halo' effect on future debt funding*
- *Greater exposure to risk from transition to CPIH, with unprecedented loss of confidence from credit rating agencies*
- *UK economy facing significant macroeconomic risks including Brexit*

Assessing these factors 'in the round' we find that the notional company is not financeable under the DD assumptions.

3. What is the right WACC for a notional water company to ensure financeability and long term financial resilience?

3.1. What is the appropriate cost of embedded debt for the notional company

- *Europe Economics (commissioned by Ofwat) in 2017 recommended that Ofwat assume a nominal cost of embedded debt of 4.90%. 6 They removed very expensive swaps but took into account index-linked swaps. Ofwat has now proposed to disallow most swaps in the Draft Determination.*

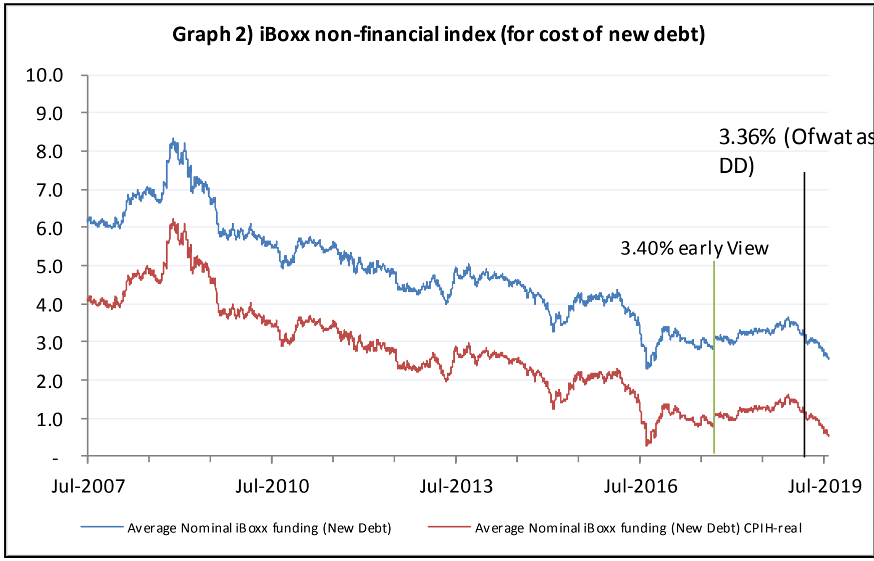
- *In our view, consideration should be given to allowing the costs of these swaps, which companies took out for sound economic reasons at the time. This would result in a higher cost of embedded debt than Ofwat calculates under the 'balance sheet' approach.*

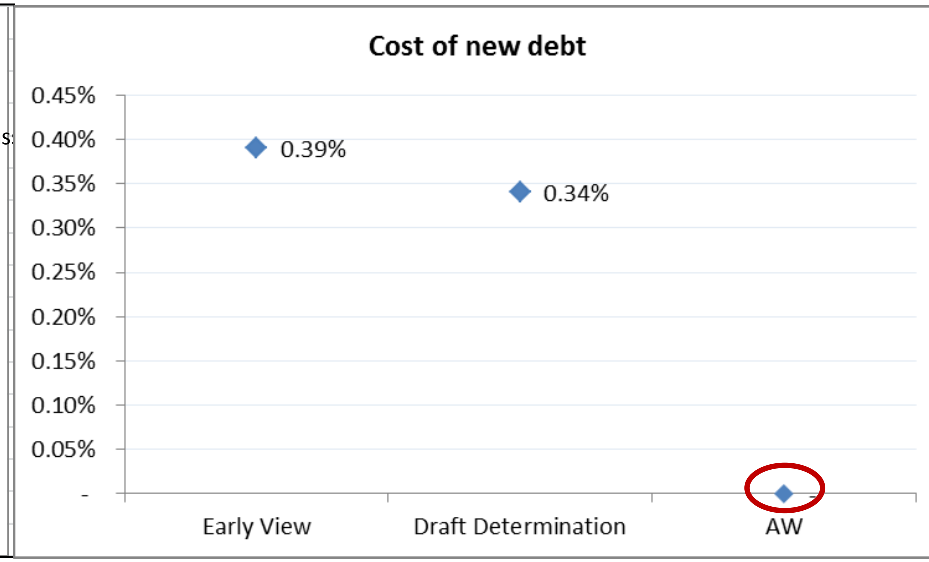
- *Between the "early view" and the Draft Determination, Ofwat repositioned its range for the cost of embedded debt relative to the company-level median cost.*

- *In the early view, the company-level median determined the point estimate; in the Draft Determination the company-level median determines the upper-end of the range and Ofwat has changed methodology by linking the point estimate to the iBoxx indices and changing the way the iBoxx indices are used in the calculation.*

We consider that at a minimum, the early view of the cost of embedded debt should be retained (i.e. 1.59% RPI-real)

3.2. Cost of new debt





- ➢ *Whilst our analysis suggests that the assumption for the cost of embedded debt should be higher than Ofwat has suggested, the cost of new debt, which reflects future financing, should reflect changes in market conditions*

- ➢ *Markets have come down significantly since the 'early view WACC' driven by macroeconomic factors including Brexit. We believe it is in the customer interest to reduce the assumed cost of new debt below that assumed in the Draft Determinations, but that any assumption of a 'halo' effect should be removed.*

- ➢ *Consideration should be given to retaining some headroom above the forward rates given the extreme uncertainty in the debt markets. With Ofwat's new indexation mechanism, any difference between assumed and actual will be returned back to customers in full.*

Given that market rates have come down, we do believe that it is in the customer interest to reduce the assumption of cost of new debt to 0% from Ofwat assumed 0.34% in the Draft Determination.

3.3. In the current unusual environment, credit metrics provide an important check on the cost of equity estimate

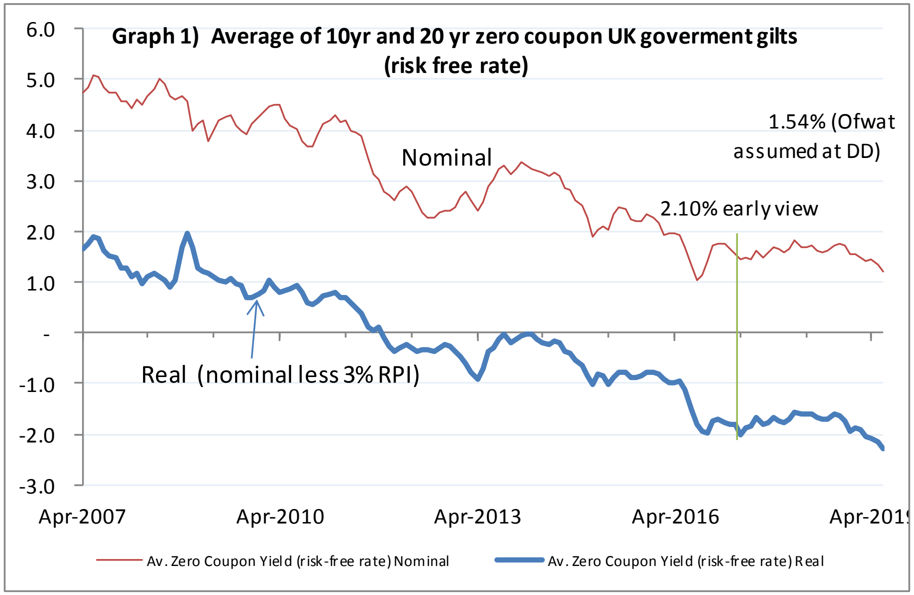
	Ofwat Draft Determination	Guidance from experts	Comments
TMR's	5.47%	6.78%	Middle of range advised by KMPG
Risk free rate	-1.42%	-1.05%	Nominal Guilts deflated by RPI (consistent with Ofwat's early view approach on WACC)
Beta	0.71	0.81	Based on 5-year assessment period
Cost of equity	**3.46%**	**5.30%**	

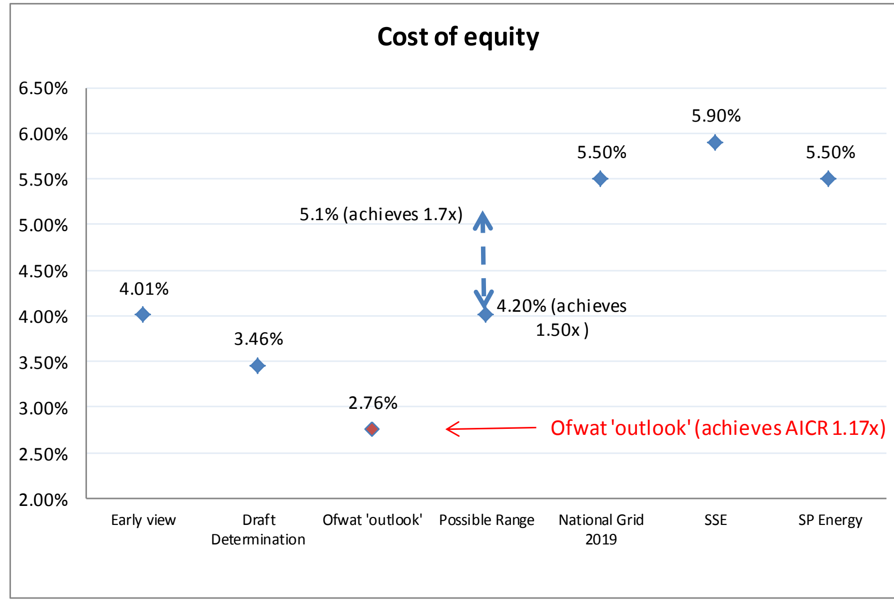
Note: Ofwat 'outlook' based on June data suggests cost of equity below 3%, which in our view, reduces the notional company to sub-investment grade

- *Is real TMR 5.5% or 6.8%? Experts have different views. PWC recommended 5.4% in their report to Ofwat, whereas KPMG refuted that evidence in their report (commissioned by water companies) and suggested a much higher range.* [7]
- *In the current extremely unusual environment, determining the underlying expected return on the market is a very challenging exercise for regulators, companies, investors, and advisers. This can be seen in the ranges presented by regulators (Ofwat, Ofgem), and energy distribution companies like National Grid, SSE etc. In these circumstances, the risk of underestimating the cost of equity is heightened.*
- *In our view, given the market conditions, and unprecedented pressure on credit metrics, when setting cost of capital allowances consideration should be given as to what level of financial resilience the cost of equity provides to the notional company. This should support AICR ratios that achieve <u>at least the minimum</u> required for Baa1 credit ratings.*

[7] KPMG (2017), ' A review of Ofwat's proposes approach to total market returns, August 2017'

3.4. Cost of Equity





- *Traditional economic theory does not explain current markets where investors are having to pay for safety (negative interest rates).*

- *Economists have different views on the appropriate risk free rate and cost of equity given these unusual market circumstances. Some feel this is a short-term blip – as inflation returns, rates will shoot up quickly. Others feel we are in a long-term deflationary stage. It is impossible to predict which view is correct.*

- *The DD position takes a particular view on interest rates, embedded debt, a presumed halo effect, ability to achieve unprecedented totex efficiencies, and downside-skewed penalties. These combine to create a much higher risk exposure for equity. Combined with the proposed cost of capital allowance. Ofwat is also assuming that companies can enhance their credit position with the use of PAYG, which is inconsistent with credit rating agency views.*

- *The rating agencies position suggests that Ofwat's proposed cost of equity leaves the notional company with very weak financial resilience.*

- *We conclude that the allowed cost of equity should be set at a level that meets <u>minimum</u> ratios.*

In our view, a cost of equity of at least 4.2% RPI is required to ensure a typical notional company can achieve the bottom end of Baa1 rating. This will still carry risks that the company would still achieve Baa1 rating, given other risks, however this should be the <u>minimum</u> consideration.

3.5. Possible WACC scenarios (RPI-real) for long-term financially resilient sector

	Early view	Low end	Mid
Embedded debt	1.59%	1.59%	1.59%
Proportion embedded vs new	70:30	80:20	80:20
Cost of new debt	0.39%	0	0
Cost of equity	4.02%	4.20%	4.60%
WACC	**2.40%**	**2.50%**	**2.66%**
Typical Notional company AICR achieved (excluding legacy or PAYG)	**1.46x**	**1.50x**	**1.60x**

Based on available evidence, we believe there are a range of possible options:

- *"Low" : we assume cost of equity to ensure that a typical notional company achieves the <u>bottom end</u> of the range for Baa1 rating (1.50x)*
    - *In this scenario, we would assume that our legacy revenues would take notional company ratios just above the minimum required 1.50x. We also assume a lower 20% proportion of 'new debt' in line with Ofwat assumption*
- *"Mid" : We assume cost of equity at 4.6% RPI-real, to ensure a typical notional company achieves the middle of the range for Baa1 rating.*

4. Conclusions

- *In September, most companies used Ofwat's early view of WACC to frame their Business Plans. Since then, the overall risks facing companies have increased significantly due to:*

  - *Regulatory challenges on Totex plans, embedded cost of debt, assumption of the 'halo' effect on the cost of new debt*

  - *Upper-quartile performance targets and downside-skewed ODIs: an average company will face penalties*

  - *Unprecedented loss of confidence in the sector from credit rating agencies*

  - *Significant macroeconomic risks including Brexit*

- *Assessing this 'in the round' we do not believe the Draft Determination, and the level of WACC proposed, is financeable for the notional company.*

- *Based on our analysis and the balance of evidence available, the minimum WACC for a notionally geared company should be somewhere around 2.5% RPI (based on the component parts discussed earlier). This will ensure a notional company could remain financially resilient over a longer term and achieve Baa1 level rating.*

- *A lower WACC of 2.4%, considered in our previous paper, could be feasible, but only if the balance of risk in the Draft Determination can be revisited for the Final Determination.*

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