Draft Determination Representations

WSH.DD.RR.1

The Financing of Functions: WACC and Financeability

30 August 2019

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1. Introduction

One of regulators' primary objectives when setting price controls is to ensure that efficient companies are able to attract capital from investors and creditors so that they can finance their functions. In line with convention, Ofwat has focused on meeting this requirement, in the first instance, by preparing an estimate of the cost of capital (WACC). It has set this at 3.19% on a real (CPIH) basis at the Appointee level in the Draft Determinations, equivalent to 2.19% on a real RPI basis,[1] and signalled that recent and current market developments could justify a yet lower figure at the Final Determination stage. It also examines financeability as a subsequent 'final check' to ensure that, when all the individual components of the companies' business plans (including totex, cost of capital, PAYG and RCV run-off levers) are taken together, an efficient company can generate cash flows sufficient to meet its financing needs.

Our position on the Draft Determination can be summarised as follows:

- we are unable to give assurance that our Draft Determination is financeable, given that we have a significantly weaker set of key financial ratios (for the notional company) in the draft determination than any other company in the sector (section 2);
- we have serious misgivings about Ofwat's approach to the estimation of the WACC, and many of the choices and judgements made in the way it has been applied at the Draft Determination stage (section 3);
- we are submitting a revised Business Plan which is financeable, making use of the PAYG and RCV run-off rate 'levers' to deliver a package of financial ratios which, in the round, are on the margin of what is necessary to deliver the required credit rating for a notional company (section 4);
- we are not able to give assurance that a Final Determination would be financeable at an even lower WACC, as a further reduction in WACC could only be partially offset by further changes to the financeability 'levers' (section 5).

We conclude that further reductions in WACC at the Final Determination, driven largely by unprecedented 'spot rates' for key market data, would not be financeable for the sector and would not deliver an optimal or sustainable outcome for customers.

2. Financeability assessment of the Draft Determination

Our Draft Determination reflects the following decisions made by Ofwat:

- a WACC for the wholesale businesses of 3.08% on a CPIH basis;
- the objective of providing sufficient headroom above a minimum investment grade credit rating to withstand a deterioration in credit risk or potential cost shocks. Ofwat indicates that it considers that target ratings of BBB+/Baa1 provide sufficient headroom;
- an increase in the PAYG ratio to bring forward approximately £62m of revenue, on the basis that without that adjustment, "*financial ratios in the round do not provide sufficient headroom to a minimum investment grade credit rating*"; and

[1] The 2.19% real RPI figure is a sharp reduction from the comparable Appointee WACC of 3.74% which Ofwat used at PR14.

- as a result, Ofwat calculates that the draft determination delivers an average AICR of 1.5 and an average FFO/net debt ratio of 7.56% across the five year period, using Ofwat's ratio definitions.

Ofwat invites companies to provide board assurance that the draft determination will be financeable. It also invites companies to note movements in capital markets since the 'cut-off point' of 28th February that it used for calculating its estimate of the WACC and to give board assurance that, at the lower WACC implied by those movements, the notional company would nonetheless be financeable at the final determination.

The Welsh Water Board has given the draft determination very careful consideration and has concluded that it is unable to provide assurance that the company would be financeable. The primary reasons for these conclusions are as follows.

First, it is evident that Ofwat's assessment of the WACC for the sector is too low. Since, on its own analysis, it is necessary to advance revenue for around a half of the companies in the sector (8 out of 17) in order to achieve financeability, a WACC of 3.08% on a CPIH basis cannot be said to be the rate of return that investors and creditors reasonably require in order to commit capital to the sector. The following section looks in more detail at particular points where we cannot accept Ofwat's assessment of the WACC.

Second, we do not think that the forecast financial ratios produced by the draft determination are consistent with Ofwat's overall approach for securing the target BBB+/Baa1 rating for companies – leaving Welsh Water with a materially weaker set of financial ratios than any other company in the sector. On Ofwat's measure of FFO/net debt, the five year average for Welsh Water of 7.56% is comfortably the lowest figure in the sector, and falls well short of the 9% threshold that could broadly be considered to be consistent with the target rating. Similarly, the RCF/net debt ratio of 5.5% for Welsh Water is well below the threshold of around 7% applied to other companies. The divergence between Welsh Water and all the other water and sewerage companies (WASCs) for these cashflow measures is demonstrated in the table below, highlighting in particular the much higher levels for Severn Trent, United Utilities and Thames Water, where Ofwat has intervened specifically to restore a financeable level for the FFO/net debt ratios for those companies.

Table – Key cashflow ratios in notional company Draft Determinations

Company	FFO/net debt	RCF/net debt	RCV run-off rate
Anglian	9.28%	7.24%	4.67%
Northumbrian	9.96%	7.86%	4.84%
Severn Trent	10.02%*	7.62%	5.0%
Southern	10.89%	8.93%	5.16%
South West	11.93%	9.54%	4.9%
Thames	8.80%*	6.82%	4.35%
United Utilities	9.81%*	6.66%	4.6%
Wessex	9.23%	7.26%	4.25%
Yorkshire	9.35%	7.36%	3.75%
DD Threshold	c. 9%	c. 7%	-
Welsh Water	7.56%	5.50%	3.52%

Note: * denotes companies where Ofwat intervened at the draft determination stage to restore an acceptable level of FFO/net debt.

We agree with Ofwat's position that consideration of financial ratios is a matter of looking at all the evidence 'in the round', and that one cannot rely upon single point ratios, but since our AICR at 1.5x (on Ofwat's measure) is itself 'on the cusp', and none of the key ratios is showing a sharply improving trend over the AMP7 period, we do not think the notional company could secure the target rating at this level, given how much weaker Welsh Water's key ratios are than those for all the other companies in the sector.

Third, the definitions of Ofwat's ratios differ in important respects from those that are used by the ratings agencies, and consistently produce better figures. On Moody's definition of AICR the notional company only averages 1.37x over the course of the AMP7 period, and on S&P's definition of FFO/net debt the corresponding figure is 6.6%. We note the respective views of Ofwat and the ratings agencies in relation to methodological issues in defining ratios, especially as regards the question of "speed of money adjustments". However, as our licence obligations dictate, we are obliged to ensure that our credit rating remains in the investment grade in practice and so we have to give primary regard to the actual ratings methodologies used by the rating agencies. Clearly, both the AICR and the FFO/net debt ratios as calculated by the rating agencies would fall significantly short of levels that are established in the draft determinations across the sector to be consistent with the target BBB+/Baa1 rating.

Fourth, the draft determination for Welsh Water does not provide full funding for the delivery of certain clear, statutory obligations (see documents WSH.DD.CE.3 Network water quality, WSH.DD.CE.6 Cyber Security, WSH.DD.CD.9 DWMPs, WSH.DD.CE.10 Cwm Taf Water Supply Strategy). Whatever the rationale for this under-funding, the assessment of financeability made by the company obviously has to allow for the full costs of meeting its statutory obligations, leading to a deterioration in interest cover and cashflow ratios to levels that are not consistent with the target BBB+/Baa1 rating.

Fifth, any assessment of financeability has to be carried out in the context not just of a 'central case' but also of a wider appreciation of future cash flows and the various risks and uncertainties to which they are subject. Since the draft determination proposes significant reductions in AMP7 expenditure, including the omission of some costs that we will face to improve service performance in line with targets set by Ofwat (or incur commensurate penalties for performance shortfalls), the expected distribution of cash flows around the draft determination projections is heavily skewed to the downside (as evidenced by Ofwat's own presentation of our RORE range). This is exacerbated by the adjustments that Ofwat has imposed on our ODI package, the variances from which are now heavily skewed to the downside.

In summary, the Welsh Water Board cannot provide assurance that the Draft Determination is financeable because it does not produce financial ratios that are adequate to secure the target rating, being significantly below those for all other companies in the sector, and leaves no headroom to accommodate the substantial downside that is built into other aspects of the determination.

3. Ofwat's proposed WACC

We acknowledge that regulators' decisions on what allowed rate of return should be built into price controls are not straightforward, and further that this challenge has been exacerbated for Ofwat at this price review by the unusual and fluctuating state of global capital markets, coupled with UK-specific uncertainties around Brexit. However, we are not able to either Ofwat's approach to the WACC, or particular elements of the calculations themselves.

On Ofwat's approach:

- the weighted average cost of capital is the return that investors and creditors reasonably require in order to commit capital to the business. Yet Ofwat approaches the calculation of the WACC as a largely mechanistic exercise, with financeability being treated as a separate 'final check'. Since, on Ofwat's draft determinations, the allowed return is insufficient to secure financeability for almost half the companies in the sector, the WACC cannot be right. On the face of it, therefore, there is a need to re-visit the approach to the WACC;

- in order to calculate the WACC Ofwat mainly relies on the application of the Capital Asset Pricing Model (CAPM). We acknowledge that the CAPM has been the 'toolkit of choice' for UK regulators when estimating the cost of capital. However, we are concerned with Ofwat's unquestioning application of this approach. For one, CAPM is not without its critics, but perhaps more importantly we think there is a need to pause and reflect on its applicability at a time when orthodox economic theory appears to be struggling to explain movements in global capital markets. Simply "taking readings off the dashboard" risks generating erroneous results at a time when market signals remain deeply counter-intuitive and confound economists;[2] and

- CAPM's theoretical application relies on the assumption that non-systematic risk, i.e risks to which a firm is subject that are not correlated with the market, are symmetrically distributed, and can therefore be 'diversified away'. Where such 'specific risks' are asymmetrically distributed, however, it is necessary to make adjustments to the results of the CAPM calculations,[3] otherwise they will not result in an allowed rate of return which is financeable in practice. On Ofwat's own RORE range analysis, companies face risks that are heavily skewed to the downside. Other risks, not captured in Ofwat's analysis, are also asymmetrically distributed to the downside, notably regulatory and political risk. We note that Ofwat acknowledges the increase in asymmetric risk, because this is the justification for the larger 'equity buffer' that it thinks is appropriate for the notional company (see Cost of Capital

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[2] Thus, for example, we note Ofwat's invitation for views on its approach to un-levering and re-levering for the purposes of estimating beta values, a highly specific question about the application of one detail within the application of the CAPM toolkit. We do not think there is a case for moving away from the approach adopted in the 'early view', but the more important point is that Ofwat should be taking a wider view and critically evaluating whether these are the right questions to be asking in the first place.

[3] Or, strictly, to make adjustments to the cash flows to which they are applied to take into account the probability distribution around the base forecasts.

Technical Appendix, p11), but does not take it into account in setting allowed returns.[4]

In short, given the wider macroeconomic context, we do not think that it is appropriate just to 'turn the handle' mechanistically on the CAPM methodology without wider consideration of the context in which it is being applied, its limitations, and the need to interpret its results with due caution in current market circumstances.

In addition to these general concerns, we have a number of specific observations regarding the detailed way in which the CAPM methodology has been used in the draft determination:

- Ofwat relies excessively on recent spot values to inform its WACC calculations (e.g. the latest yields on the iBoxx indices). The allowed rate of return needs to be appropriate for the whole of the AMP7 period. As there is no direct evidence as to what the actual cost of capital will turn out to be, it is necessary to exercise judgement having regard to all available evidence, not just recent short term market movements. We note that Ofwat relies heavily on pre-2008 evidence to inform its AMP7 projections on frontier shift (see document WSH.DD.CE.1), and we consider that a greater consistency of approach should be applied here;

- Ofwat sets the real risk free rate at -0.45% on a CPIH basis, and states "*we consider there is no reason in economic theory why a negative rate could not manifest over a period of time*". However, it does not elaborate on this statement. Since, *prima facie*, rational economic agents would not be expected to be indifferent between 'more today and less tomorrow', we think there is an obligation on Ofwat to justify this statement, (or revert to a positive risk-free rate);

- in any event, we note that Ofwat argues for a figure for the risk-free rate which lies at the bottom of the data range of +0.02% to -0.49%. We accept Ofwat's point that using the nominal gilts approach may lead to exaggerated estimates because of the inflation risk premium, but we also agree with Europe Economics that this is likely to be small. By the same token, since Ofwat has fallen into line with the more conventional approach of using the return on index-linked gilts, it should also recognise the premium that those assets command by virtue of their scarcity value, which depresses the implied value of the risk free rate. Leaving aside the question of consistency with economic theory, this would imply a figure much more in line with Europe Economics' estimate of -0.19% on a CPIH basis;

- Ofwat's use of unlevered beta estimates for two listed water companies over a comparatively short period is questionable, because of the circularity between the data that Ofwat analyses and its own regulatory decisions. A lower WACC signalled by the regulator leads to lower share prices, which lead to a lower levered beta reading, which feeds through into an even lower expected WACC, lower share prices, and so forth. We note, in particular, the big reduction in WACC implied by movement in unlevered beta between the end of February and 28 June 2019 (see Cost of Capital Technical Appendix p.17). Ofwat should either look at a longer time

[4] If such risks were *not* asymmetrical, and could therefore be diversified away, there would be no need for a larger 'equity buffer'.

series that is not so heavily influenced by PR19 itself, or examine evidence from a wider comparator group of companies across similar sectors;

- by contrast, Ofwat and PwC discount the higher figures for Total Market Return as at February 2019 on the grounds that they reflect share price weakness at that time - the same factor that generates a lower estimate for unlevered beta. This reinforces the view that Ofwat should avoid using spot estimates of variables drawn from share price data, and consider market evidence over a longer timeframe, preferably excluding periods when share prices will be heavily influenced by the price review itself;

- in estimating the historical cost of debt Ofwat has not taken into account the higher costs of junior debt raised by some companies as a way of achieving lower costs of senior debt. Ofwat has also been selective in excluding consideration of the costs of swaps, even though these are a legitimate part of the issuance costs that companies incur to get the 'best all-round deal' at the time debt is raised, ensuring the lowest long-term cost to customers. As a result, Ofwat's estimate of the cost of embedded debt is too low;

- finally, we do not accept the validity of the 25 basis point 'halo effect' that Ofwat proposes to use as the basis for a downward adjustment in its calculations of the cost of debt. For one, as noted above, Ofwat's measurement of the historical cost of debt does not take into account all the actual costs legitimately incurred. More specifically, even if water companies have outperformed the relevant index in the past, Ofwat has not explained why it would be safe to assume that this would continue in the future. Nor does it take into account that any 'halo effect' would be expected to have contracted *pro rata* with underlying interest rates, rather than remaining unchanged at a fixed basis point margin. Finally, and in any event, it is clearly inconsistent to argue on the one hand that there has been a 'halo effect', whilst on the other arguing that the costs of embedded debt should be based on market indices rather than water company issuance, on the grounds that the latter might be inefficient.

4. Financeability and WACC in our revised Business Plan

In developing our revised Business Plan, we have taken into account many of the concerns we have with Ofwat's approach to financeability and the WACC, but have sought to keep differences to a minimum. The main features of our approach are as follows. For the notional company:

- we have allowed funding to meet all of our statutory obligations;

- we have 'solved' to achieve an average 1.5x AICR (Ofwat) across the AMP7 period by increasing PAYG ratios to above the 'natural rate';

- we have increased the RCV run-off rate by an average of 23bps to 3.75% (still the equal lowest for the water and sewerage companies), in order to deliver FFO/net debt and RCF/net debt ratios more in line with the levels considered financeable for all other companies at the draft determination;

- the profile of both AICR and FFO/net debt ratios across the five year period shows modest but steady improvement;
- we have reduced the dividend yield from Ofwat's assumption of 3.15% to 1.74%; and
- we have thereby accommodated Ofwat's headline draft determination wholesale WACC of 3.08% (CPIH real) within our revised business plan; albeit with no margin of headroom for any of the key financial ratios.

In addition, for the actual company, we have reduced the dividend yield to zero to preserve financeability.

This final adjustment has very significant implications for our continued ability to fund a proportion of our social tariff assistance for disadvantaged customers, which is discussed further in WSH.DD.OO.4 Social Tariffs. In summary, a further increase of 0.19% in the RCV run-off rate (to 3.94%) would be required to enable the actual company to continue to make a contribution to social tariffs at roughly the current level.

We are able to give assurance that the August Plan is financeable, having regard to the following considerations:

- although both the notional company AICR (Moodys) and FFO/net debt (S&P) ratios fall short of the 1.5x and 9% benchmarks respectively, taken together with our comparatively low and stable gearing (below 65%) we consider that the target ratings (BBB+/Baa1) are achievable albeit with no margin of headroom;
- although we have achieved this package of financial ratios by accelerating additional cash to meet the Ofwat ratios, the result does not lead to material depletion of the RCV, and produces PAYG ratios and run-off rates that remain in line with values elsewhere in the industry (see WSH.DD.RR.2 PAYG and RCV run off rates) for further details on our decisions on PAYG and RCV run-off rates); and
- the average bill profile for customers remains below that in our September 2018 business plan, for which we had very strong customer endorsement (92% acceptability) – this constrains our ability to achieve cashflow ratios that are fully in line with the norms established in the draft determinations for other companies in the sector.

5. Potential further reduction in WACC at the Final Determination

We have given careful consideration to Ofwat's requirement for companies to consider the potential impact of yet further reductions to the headline WACC for the final determination. Given that the Board of Welsh Water is not able to give assurance that the draft determination is financeable, it is logically unable to provide assurance that a final determination would be financeable at an as yet unspecified, but potentially materially lower, level of WACC.

However, we would like to make a number of observations on the possibility of a lower allowed rate of return at the Final Determination.

First, as noted earlier, we have grave doubts as to whether Ofwat's approach to the WACC is producing reliable and sustainable results, given in particular the impact of unprecedented current market conditions on spot rates and the problem of circularity between the estimation of unlevered betas, current share prices and the price review itself.

Second, although in the case of Welsh Water there is some scope to increase the RCV run-off rate further to offset the effects of a further reduction in WACC on the FFO/net debt and RCF/net debt ratios, this 'lever' does not impact on AICR. An increase in PAYG could restore the AICR ratio as defined by Ofwat but would not be taken into account in Moody's or Fitch's definitions of AICR, which would jeopardise the achievement of the target rating for the notional (and actual) company.

Third, the Welsh Water 'actual company' is already not committed to any level of dividends in our revised Business Plan, and so there is no scope to restore financeability by reducing assumed dividend payments.

Fourth, there is strong evidence that the level of allowed return in the Draft Determinations is already too low to deliver the required financeability for notional companies across the sector, for example as set out in the report "PR19 – Notional Company Financeability" published by Anglian Water. A further reduction in WACC would clearly result in key ratios which could not meet the financeability test for notional companies (for example, an AICR of 1.17x for a notional company at an indicative final determination WACC of RPI + 1.82%, according to the Anglian Water report).[5]

[5] A piece of research by Moody's after the draft determination came to the same conclusion: see "*Ofwat tightens the screws further*": 26th July 2019.