Final Response to CMA WACC Consultations

Paper 2(B): Proportions of New Debt and Embedded Debt

27 January 2021

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1. Executive summary

1.1 Overview

1.1.1 YWS has identified several errors within the CMA's assessment of the proportions of new debt and embedded debt. The errors result directly from the CMA's misconstruction of the anchoring that it should take from the "average number of years to maturity" data presented in companies' APRs.

1.1.2 The errors have led the CMA to materially overstate the proportion of new debt and, consequently, materially understate the cost of debt allowed for the notional company.

1.1.3 The errors can easily be corrected, and in this paper YWS sets out the revised methodology that the CMA should apply. **Based on the evidence, the appropriate range for the proportion of new debt is 11% to 15%.**

1.2 Outline of this paper

1.2.1 YWS's submission on the proportion of new debt is structured as follows:

(a) **Section 2** sets out the errors in the Cost of Debt Working Paper.

(b) **Section 3** outlines YWS's revised calculations that result in a range of 11% to 15% for the proportion of new debt. Section 3 also shows that this calculation conforms with a cross-check to the actual range of 12% to 15%.

(c) **Section 4** concludes that the correct range for the proportion of new debt should be 11% to 15%, not 18% to 22%, as included within the CMA's Cost of Debt Working Paper.

2. Material errors within the CMA's approach to determining the split of embedded debt to new debt

2.1 Overview

2.1.1 YWS noted in its 13 January Response to the CMA's Cost of Debt Working Paper that there are two material errors within the CMA's proposed split of embedded debt and new debt. They involve:

(a) a systemic overstatement by the CMA of the rate at which existing debt will be replaced by new debt, caused by a

misinterpretation of "weighted average number of years to maturity"; and

(b) an error in the application of the N=T/M formula that the CMA used to calculate the proportion of new debt (an error that was first identified by YWS in the October 2020 PFs Response).[1]

2.1.2 YWS also considers that the CMA's Cost of Debt Working Paper did not contain an appropriate cross-check of the CMA's assumptions to data for the water sector's actual mix of debt.

2.2 Unrealistic characterisation of "weighted average number of year to maturity"

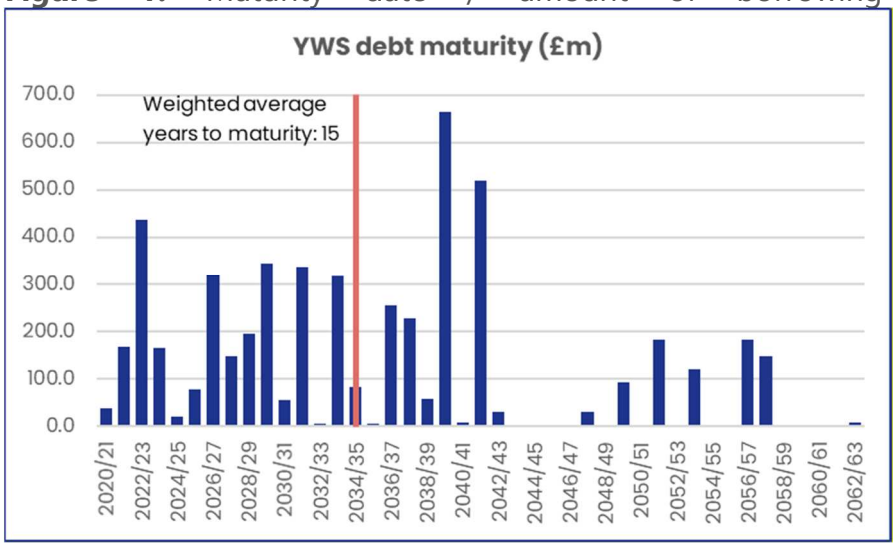
2.2.1 As detailed within YWS's 13 January Response, YWS believes that the CMA has misinterpreted the reported weighted average maturity data for the sector.

2.2.2 The sector average maturity of ~13 years reported within water companies' APRs that the CMA references in the Cost of Debt Working Paper is the average remaining tenor across all industry debt instruments – i.e. the average number of years from a chosen start date of 31 March 2020 until each instrument matures.

2.2.3 Figure 1 sets out the YWS data that feeds into the industry average calculation.

[1] YWS, Response to the CMA's Provisional Findings of 29 September 2020 (27 October 2020), Table 1.

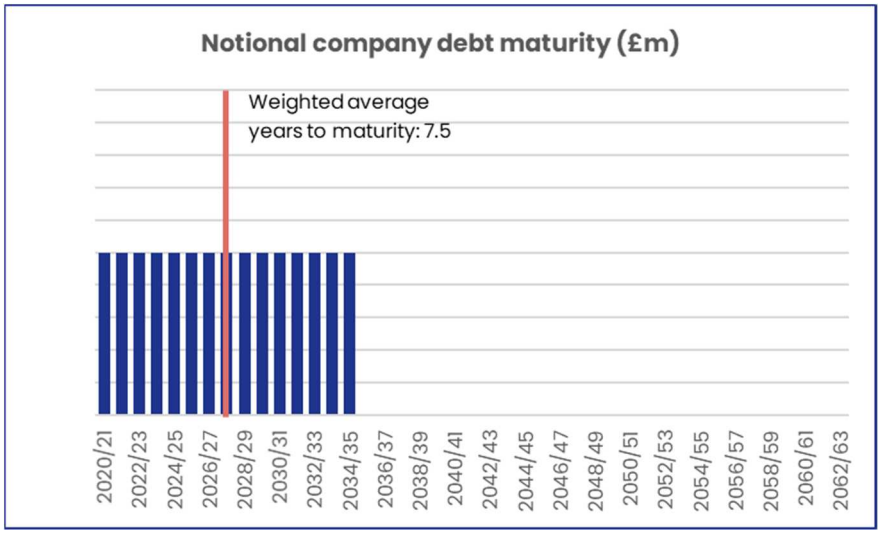
Figure 1: Maturity date / amount of borrowing (YWS)[2]



2.2.4 As YWS has previously noted, the CMA has drawn a false equivalence between the ~13 years and its proposed 15-year collapsing iBoxx average in paragraphs 69 and 78 of the Cost of Debt Working Paper.

2.2.5 The weighted average number of years to maturity as at 31 March 2020 for the notional company under the CMA's 15-year collapsing iBoxx average is, in effect, only 7.5 years, as set out in Figure 2.

Figure 2: Maturity date / amount of borrowing (notional company)



2.2.6 YWS cannot conceive of an economic rationale for the stark difference between the ~13 years sector weighted average to maturity and the notional construction. YWS considers this to be a clear error.

[2] YWS March 2020 debt maturities excluding RCF.

2.2.7 The 15-year collapsing average and 7.5 weighted average years to maturity cannot be taken as benchmarks for the mix of debt that an efficiently financed company would have taken into the AMP7 regulatory period.

2.2.8 Accordingly, the reference that the CMA took from its 15-year collapsing average when assessing the proportions of new and embedded debt was also unsound, leading the CMA to miscalculate the weights it should use in its cost of debt calculation.

2.3 Error within the N=T/M formula used to calculate the proportion of new debt

2.3.1 The CMA has proposed that the mix of embedded and new debt can be computed on a notional basis using the formula N = T/M, where N is the proportion of new debt in year T, T is the number of years in a price control period, and M is the weighted average number of years to maturity.

2.3.2 The formula implies that when T=M, all of a company's embedded debt will have matured and the weight for new debt ought to be 100%. However, M is the average number of years to maturity across a company's debt portfolio. When T=M, it is more logical to assume that approximately half of the embedded debt will have matured and half will still be in place. This is consistent with the picture shown for YWS in Figure 1.

2.3.3 The correct formula for the proportion of new debt in year T, is therefore:

$$N = 0.5 \times T / M$$

2.4 The CMA has not performed an appropriate actual cross-check of its notional assumptions

2.4.1 An appropriate cross-check to available actual industry data would have identified the errors set out above.

2.4.2 The App20 data submitted by each of the companies during PR19, and provided by Ofwat to the CMA, details existing instruments and the maturity dates of those instruments.

2.4.3 The App20 data does not show anything like the 35-40% of debt maturing before the end of AMP7 that the CMA would have needed to observe in order to justify a 20% average weight for new debt. Further details behind YWS's updated (and corrected) calculations are provided in Section 3 below.

3. YWS updated calculations

3.1 Overview

3.1.1 YWS details below revised (and corrected) calculations that address the errors outlined in Section 2 above.

3.1.2 The calculations clearly show that the **range for the proportion of new debt should be 11% to 15**%; which is materially different from the range of 18% to 22% that is used in the Cost of Debt Working Paper.

3.2 Notional approach

3.2.1 Based on the reported sector average maturities of 13 to 13.8 years quoted by the CMA, the corrected N = 0.5 x T/M formula results in a range of 11% to 12% for the proportion of new debt, as shown in the table below.

Table 1: Notional new debt calculation (actual industry debt maturity)

Notional benchmark approach	Low	High
Weighted average maturity (years)	13.8	13.0
Notional formula (N = 50% * T/M)	18.1%	19.2%
RCV growth (Ofwat assumption)	3.9%	3.9%
New debt at end of period	**22.0%**	**23.1%**
Average new debt across period	**11.0%**	**11.6%**

3.2.2 Alternatively, if the CMA were to revert to a 20-year collapsing average (equivalent to a 10-year average maturity) as discussed within YWS's separate paper on embedded debt, the above analysis would result in an average new debt proportion of 14.5%.

3.2.3 The above results in a notional range of 11.0% to 14.5%.

3.3 Actual cross-check

3.3.1 As noted above, a cross-check against actual data can be undertaken using the App20 data provided by Ofwat, which details maturities of actual sector debt reported at March 2018. While this is two years out-of-date, it is unlikely that a material amount of any new debt raised in the two-year period to March 2020 will have had a tenor of less than seven years, meaning that any new debt raised in that period will be very unlikely to mature before March 2025.

3.3.2 This data set shows that £13bn of debt is due to mature across the five-year period to March 2025. Once accretion on index-linked debt and RCV growth are also factored in, the analysis shows an average new debt figure of 12%, as shown by Table 2.

Table 2: Actual new debt calculation (£bn). Source: Ofwat App20 data file

App20 cross check analysis	£bn
Existing debt maturities in 20/21	2,499
Existing debt maturities in 20/22	2,038
Existing debt maturities in 20/23	2,904
Existing debt maturities in 20/24	3,155
Existing debt maturities in 20/25	2,436
Total new debt	**13,031**
Remaining IL debt at March 2025	25,164
Accretion at 2.9% on remaining IL debt	3,867
Total debt at March 2025 including accretion	**63,459**
Proportion of new debt at March 2025	20.5%
RCV growth (Ofwat assumption)	3.9%
Total new debt at March 2025	**24.4%**
Average new debt across period	**12.2%**

3.4 Ofwat "company data-led" approach

3.4.1 Ofwat's PR19 FD "company data-led" approach analysed company business plans and determined an average new debt range of 14% to 17%.

3.4.2 It is important to note that Ofwat's analysis is based on companies' business plan submissions, which assumed total sector costs of £54.8bn; however Ofwat's FD only allowed costs of £49.6bn, a shortfall of £5.2bn. Based on the notional gearing assumption of 60%, this means total sector new debt would be approximately £3.1bn lower than included within Ofwat's analysis.

3.4.3 Adjusting Ofwat's analysis to reflect this reduction in new debt would reduce the average new debt range down to 12% to 15% as shown by Table 3.

Table 3: average new debt across the period

Company led approach	Low	High
Industry business plan costs (£bn)	54,846	54,846
Ofwat FD costs (£bn)	49,623	49,623
Cost variance (£bn)	5,223	5,223
Variance at 60% notional gearing (£bn)	3,134	3,134
Closing debt per Business plan App19 (£bn)	65,879	65,879
Ofwat range of new debt at end of period	28%	34.0%
Ofwat assumed new debt (£bn)	18,446	22,399
Adjusted new debt (£bn)	15,312	19,265
Adjusted closing debt (£bn)	62,745	62,745
Adjusted proportion of new debt at end of period	**24%**	**31%**
Average new debt across period	**12%**	**15%**

4. Conclusion

4.1.1 YWS agrees with the CMA that a benchmark-led approach should be the primary approach to setting the allowed cost of debt. This includes the approach to calculating the proportions of embedded and new debt. The benchmark-led approach can then be supported by actual data as a cross-check.

4.1.2 Unfortunately, the CMA's calculations in its Cost of Debt Working Paper were afflicted by the two errors outlined in section 2 of this paper. These errors must be corrected in the CMA's Final Determination.

4.1.3 A corrected notional approach produces a range of 11% to 15% for the proportion of new debt as set out in section 3. The cross-check to actual data gives a similar range of 12% to 15%. This indicates that the appropriate range is 11% to 15%.

4.1.4 Table 4 summarises the figures presented by the CMA, together with YWS's amended figures that correct the errors made by the CMA.

Table 4: Summary of new debt proportion analysis

New debt proportion analysis	Ofwat FD	CMA PF	CMA Condoc	Corrected range
Notional	20-21%	13.0%	18.5-22.0%	11-15%
Company led	14-17%	14-17%	14-17%	12-15%
Actual - App20 analysis	n/a	n/a	n/a	12.0%
Overall range	**14-21%**	**13-21%**	**18-22%**	**11-15%**

4.1.5 The result of these three errors is that **the CMA has materially overstated the proportion of new debt. The correct range is c11%-15%, rather than 18%-22%.**