



Evidence on Company Specific Adjustment for Portsmouth Water's Cost of Debt

Portsmouth Water

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Executive Summary

Portsmouth Water commissioned NERA Economic Consulting (NERA) to review market evidence on the efficient incremental cost associated with its debt costs relative to a notionally efficient company, in order to estimate a company specific adjustment for Portsmouth Water for PR19. In order to estimate the uplift for Portsmouth Water's debt costs, we provide an updated estimate of the premium for small WoC debt costs compared to the wider industry. We also review Ofwat's proposed customer benefits test.

At PR14, Ofwat estimated an uplift of 25 bps for small WoC debt costs

At PR14, PwC, Ofwat's advisers, considered three main sources to identify the company specific adjustment for small WoC debt costs: Artesian finance, public bond issuance, and company data and interviews on bank loan finance. For Artesian, PwC identified an adjustment of 26 bps; for small WoC bond yields-at-issuance PwC identified a premium of 30 bps; and, for bank finance between 20 and 40 bps. For traded yields for small WoCs, Ofwat's advisers did not identify any relevant data. Overall, Ofwat determined an adjustment for Portsmouth and Bournemouth Water's debt costs of 25 bps, towards the lower-end of the range of evidence of between 20 and 40 bps. (See Table 1.)

At the Bristol Water appeal in 2015, the CMA determined a company adjustment for Bristol Water's debt costs of 40 bps drawing on Ofwat's evidence for small WoC Artesian bond financing costs.

We estimate an up-to-date adjustment to reflect Portsmouth's efficient debt costs relative to a notionally efficient company of 30 bps for PR19

In updating the evidence to estimate a company specific adjustment for Portsmouth's debt costs for PR19, we consider evidence on public bond yields-at-issuance, as well as traded yields. We do not update Ofwat's PR14 estimates of the premium associated with Artesian finance as there are no further public issues. Nor have we updated Ofwat's PR14 evidence on bank debt, as there is no further available public evidence on the relative costs of bank debt. However, we comment on Ofwat's interpretation of the PR14 evidence for these sources.

Table 1 summarises the results of our updated market evidence compared to Ofwat's PR14 estimates. Our analysis of the empirical evidence on yields-at-issuance shows that WoC spreads are 28 bps above WaSCs, consistent with PwC's estimate of 30 bps at PR14. Our analysis of the evidence on traded yields shows that on average WoC spreads are 22 bps above those of the comparator WaSC. By contrast, PwC found no evidence for a WoC premium for traded yields at PR14.

In general, we identify more compelling evidence for a premium for small WoC debt costs than Ofwat at PR14. Our analysis is more comprehensive and the estimates are more robust, as we draw on a far wider set of bonds than Ofwat at PR14 for both yields at issuance and traded yields.

Table 1
Comparison of Ofwat PR14 and NERA updated market evidence for an adjustment for Portsmouth Water’s debt costs

Source	Ofwat PR14 and CMA	NERA updated evidence	Comment
Market evidence for bonds			
Yield at issue	30 bps	28 bps	NERA estimate based on all GBP outstanding debt issues from 1998 to 2017; Ofwat restricted to 2008-2014
Traded yields	No evidence	22 bps	NERA estimate based on 5 WoC bonds vs Ofwat’s 2 bonds. Excludes AFW where debt costs may be affected by timing of securitisation as noted by Ofwat at PR14
Artesian and bank finance			
Artesian	26 bps (Ofwat) 40 bps (CMA)	26-40 bps	There are no further Artesian issues since PR14, and no further evidence on relative bank loan finance costs
Bank loan	20 bps (PR14 BP) 40 bps (survey)	20-40 bps	

Source: NERA analysis of data from Bloomberg, Bank of England, and PwC report.

At PR14, Ofwat determined a 25 bps adjustment for Portsmouth Water’s debt costs in the lower end of the range of 20 to 40 bps identified by its consultants. It appears that it selected a value towards the lower end of the range, as it considered that the survey evidence supporting a premium of 40 bps for bank loans was heavily influenced by one observation.

We disagree with Ofwat’s exclusion of survey evidence on bank loans in determining the uplift at PR14. We note that the survey was based on four observations, and excluding the highest estimate will inevitably affect the average. However, likewise, if we exclude the lowest estimate then the average also materially increases (to close to 50 bps). Given a sample size of four, there is no basis for excluding either the lowest or the highest survey response.

Overall, the evidence for an adjustment for debt costs for Portsmouth Water relative to the notionally efficiency company is more compelling than at PR14: the evidence from both bonds yield-at-issuance and traded yields is based on a wider sample, and supports a value of around 20 to 30 bps. Taking into account the evidence on Artesian loan finance of 26 bps by Ofwat and 40bps by CMA, and bank loan evidence of between 20 and 40 bps, we conclude that the evidence supports an uplift of 30 bps for Portsmouth Water for PR19.

We do not consider that Ofwat should apply a customer benefits test in principle

At PR14, Ofwat invoked a contentious “*customer benefits test*” at PR14 to deny an uplift for small WoCs’ debt costs other than for Portsmouth and Bournemouth Water. Ofwat’s calculation of the benefits was based on a company’s value as an independent comparator in Ofwat’s cost and service level modelling. Although the CMA did not consider the benefits test was valid in its 2015 decision for Bristol Water, in its recent consultation document,

Ofwat has suggested that companies should show that any adjustment for efficient debt financing costs is more than offset by customer benefits.

We disagree with the application of a customer benefits test to the recognition of efficient financing costs in principle, as per the CMA 2015 decision. Ofwat has acknowledged at all previous reviews that small WoCs face higher debt costs, and updated market evidence continues to support an uplift of 30 bps for PR19. Ofwat's duties require it to secure that companies are able to finance their activities, including by securing reasonable returns on capital. This means that Ofwat should set an allowance for Portsmouth Water that reflects the efficient cost of debt: there is no requirement to submit the recovery of efficient costs to a consumer benefits test.

Notwithstanding our concern in principle, our analysis suggests that Portsmouth Water provides substantive customer benefits given its strong cost and service level performance. For example, at PR14 Ofwat estimated a consumer benefit in relation to Portsmouth's strong cost performance of between £37 and £50 million, a magnitude of order greater than the cost of the uplift to reflect higher financing costs at PR14 of £4 million. Portsmouth is also a leading performer on the SIM which further enhances its benefit as an independent comparator.

As well as size, Ofwat should allow a company specific adjustment to reflect Portsmouth Water's atypical debt structure, and the associated timing of its debt issues

As we have explained in a previous report to Ofwat,¹ if Ofwat determines the notionally efficient embedded debt costs based on the industry average, Portsmouth Water's embedded cost of debt allowance should also reflect the difference between the efficient benchmark value corresponding to the time of its debt issuance (e.g. where the allowance is based on an iBoxx index) and Ofwat's allowed industry average, to reflect Portsmouth Water's atypical debt structure and associated timing of its debt issuance.

As we explain in our earlier report, allowing for a company specific adjustment based on the efficient benchmark index value corresponding to the time of Portsmouth Water's debt issuance would meet Ofwat's objectives for setting the cost of debt allowance. Namely, such an approach would ensure that *customers will only face the efficient cost of debt for a notionally structured company*, given the benchmark can be selected to reflect Ofwat's notional rating and structure, and provide incentives *to minimise debt costs*, given the use of a benchmark that is independent of Portsmouth Water's actual costs.

As we also explain in our earlier report, the recognition of the timing of debt issues for companies with atypical debt structures relative to the wider industry, as per Portsmouth Water, is entirely consistent with good regulatory practice, including Ofwat's approach to setting the cost of debt for the Thames Tideway Tunnel, as well as practice in determining debt costs for energy network companies with atypical debt issuance.

¹ NERA (October 2016) Response to Ofwat's Cost of Debt Consultation for PR19. Link: (See: https://www.portsmouthwater.co.uk/wp-content/uploads/2017/01/161017-Ofwat-Cost-of-Debt-Indexation-Mechanism_FINAL.pdf)

1. Introduction

Portsmouth Water commissioned NERA Economic Consulting (NERA) to review market evidence on the efficient incremental cost associated with its debt costs relative to a notionally efficient company, in order to estimate a company specific adjustment for Portsmouth Water for PR19. In order to estimate the uplift for Portsmouth Water's debt costs, we provide an updated estimate of the premium for small WoC debt costs compared to the wider industry. We also review Ofwat's proposed customer benefits test.

The scope of this report does not include a review of evidence on the incremental costs faced by Portsmouth or water-only-companies in relation to equity financing costs.

The report is structured as follows:

- Section 2 provides a review of Ofwat's approach to determining the company specific adjustment for financing costs for WoCs at PR14, CMA's Bristol Water decision in 2015 in relation to small WoC financing costs, and sets out our proposed approach to updating the evidence.
- Section 3 provides market evidence to support an adjustment for Portsmouth Water's debt financing costs at PR19
- Section 4 considers the validity of Ofwat's customer benefits test
- Section 5 draws conclusions.

2. Review of Regulatory Precedent, and Our Approach

In this section, we summarise the methods that Ofwat adopted to estimate the company specific adjustment for small WoC financing costs at PR14, and the Competition and Market Authority (CMA) consideration of this issue at the Bristol Water appeal. We do not describe the approach to the customer benefits test here but cover this in section 4.

Overall, we observe that at PR14 Ofwat considered the premium associated with Artesian finance, bank debt finance, and public bond issuance. We conclude that we should update evidence associated with public bond issuance in the absence of further public or market evidence on Artesian and bank debt finance.

2.1. Ofwat approach at PR14, and Bristol Water appeal

2.1.1. Ofwat allowed an uplift of 25 bps for debt costs

At PR14, Ofwat allowed Portsmouth and Bournemouth Water a 0.15 per cent uplift to the WACC, or equivalent to 25 bps on the cost of debt.² Ofwat invoked a contentious “*customer benefits test*” at PR14 to deny a similar adjustment for other *small* WoCs (then comprising, Bournemouth, Bristol, Dee Valley, Portsmouth, South Staffordshire Cambridge, and Sutton and East Surrey). We consider the customer benefits test in detail in section 4. Ofwat did not consider that there was evidence to support an uplift for large WoCs’ debt financing costs, comprising Affinity Water and South East Water.

At PR14, PwC, Ofwat’s advisers, reviewed a number of different sources of evidence in determining a company specific adjustment for debt financing costs including Artesian finance, public bond issues, and bank loan finance. For Artesian and bank loan finance, PwC compared the spreads *at issuance*³ on WoC debt relative to WaSC debt. For Artesian finance, PwC estimated a debt premium of 26 bps relative to its wider industry cost of debt allowance.⁴ For public bonds, PwC identified a 30 bps premium for *small* WoC spreads *at issuance*, although noted that there have been relatively few issuances.⁵

For public bond issues, PwC also compared spreads to benchmark gilt for WoCs relative to WaSCs based on *traded yields*. PwC concluded that there was no evidence for a premium based on yield-to-maturity for large WoCs and stated that there was no available data on traded yield spreads for small WoCs.⁶

² Ofwat (2014) Final price control determination notice: policy chapter A7 - Annex 3: benefits assessment of an uplift on the cost of capital, p.4. Link: https://www.ofwat.gov.uk/wp-content/uploads/2015/10/det_pr20141212riskrewardbenefits.pdf

³ Where the spread at issuance is defined as the yield-at-issuance of the WoC debt relative to the benchmark gilt yield-at-issuance of comparable maturity.

⁴ PwC (2014) Company specific adjustments to the WACC, A report prepared by Ofwat, p.14. Link: https://www.ofwat.gov.uk/wp-content/uploads/2015/10/rpt_com1408pwcuplift.pdf

⁵ PwC (2014) op. cit, p.16.

⁶ PwC (2014) op. cit, p.19.

PwC also considered the higher costs of bank finance, noting that WoCs typically use more bank debt than WaSCs because of the minimum efficient scale of bond finance. It concluded that evidence from the pricing of existing bank debt from companies' business plan submissions, and also from interviews with commercial banks, shows that WoCs pay a premium on bank debt of between 20 and 40bps relative to WaSC costs.⁷

Table 2.1
Ofwat's advisers identified a *small* water-only-company premium of between 20 and 40 bps

Source	Estimated premium
Artesian finance	26 bps
Bond finance (yield at issue)	30 bps
Bond finance (traded yields)	No available data for small WoCs
Bank finance	20-40 bps

Source: NERA analysis of PwC (2014). op. cit., p. 21

In interpreting the evidence, Ofwat allowed for an uplift of 25 bps for small water-only-companies in the lower part of the observed range of 20-40 bps. Ofwat's advisers noted that the upper-end premium for WoC bank financing costs of 40 bps was heavily influenced by a single observation, and therefore discounted the upper-end value, erroneously in our view, as we explain in section 4.3.⁸

2.1.2. CMA estimated a debt premium of 40 bps

In its Bristol Water 2015 decision, the CMA estimated a company specific adjustment for debt financing costs of 37 bps based on Ofwat's own estimates of the higher costs associated with Artesian debt finance relative to the allowed cost of debt based on the industry average.⁹ The 2015 decision was in line with CMA's (then CC) 2010 estimate of 40 bps.¹⁰

In addition, the CMA 2015 decision included extensive discussion of Ofwat's PR14 customer benefits test which we address in section 4.

⁷ PwC (2014) op. cit., p.17.

⁸ PwC (2014) op. cit, pp.21-23.

⁹ The CMA's 2015 estimate was based on the higher cost of Artesian finance relative to the benchmark iBoxx index as identified by Ofwat's advisers of 11 bps, and allowing for the lower WaSC financing cost relative to the benchmark of 26 bps. Source: CMA (2015) Bristol Water plc, p 308. Link: https://assets.publishing.service.gov.uk/media/56279924ed915d194b000001/Bristol_Water_plc_final_determination.pdf

¹⁰ In BW 2010 appeal, the CMA (then CC) estimated a premium for small companies' financing costs of 40 bps consistent with Ofwat's estimate at PR09. Source: CMA (2015) Bristol Water plc, p 307. Link: https://assets.publishing.service.gov.uk/media/56279924ed915d194b000001/Bristol_Water_plc_final_determination.pdf

2.2. Conclusions, and our approach

At PR14, Ofwat's advisers reviewed three main sources to identify the required uplift for higher debt financing costs for WoCs: Artesian finance, public bond issuance, and company data and interviews on bank loan finance. For Artesian, PwC identified a premium of 26 bps, for small WoC bond yields-at-issuance PwC identified a premium of 30 bps, and for bank finance between 20-40 bps. For traded yields for small WoCs, PwC did not identify any relevant data. Overall, Ofwat determined an uplift for small WoCs of 25 bps towards the lower-end of the range.

In updating the evidence base to estimate the company specific adjustment for Portsmouth Water' debt costs for PR19, we consider public bond yields at issue where Ofwat identified a premium of 30 bps, as well as traded yields (where Ofwat's advisers failed to identify any relevant small WoC data). We do not update Ofwat's PR14 estimates of the premium associated with Artesian finance as there are no further public issues. Nor have we updated Ofwat's PR14 evidence on bank debt, as there is no further available public evidence on the relative costs of bank debt. We do, however, comment on Ofwat's interpretation of the PR14 evidence for these sources.

3. Market Evidence for Debt Premia at PR19

In this section, we set out market evidence for higher debt financing costs for small Portsmouth Water based on a comparison of WoC and WaSC relative bond financing costs. We update the bond market evidence for the bond issues since PR14, as well as including public bond issues omitted from Ofwat's analysis at PR14.

We conclude that latest market evidence for public bonds supports an adjustment for Portsmouth Water' debt costs of 30 bps relative to the notionally efficient company.

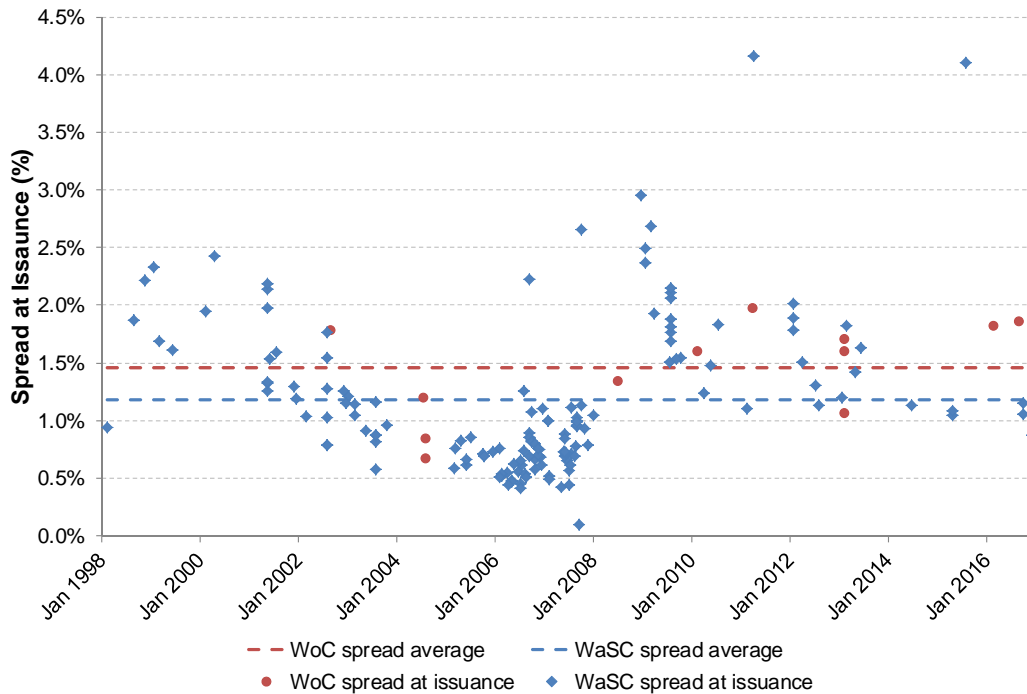
3.1. Updated evidence on bond yields at issue

Figure 3.1 shows the spreads at issuance for all outstanding WoC and WaSC bonds¹¹, as well as their respective averages over the period of analysis. We calculate the spread as the difference between the WoC bond yield-at-issuance and the benchmark UK government bond yield with the same tenor, consistent with Ofwat's approach in PR14. The comparison of spreads as opposed to yields ensures that we control for differences in the tenor of the bonds, type of bond, and time of issuance.¹²

¹¹ We consider all outstanding GBP-denominated, fixed rate, with no embedded options, bullet bonds. We removed bonds with negative spreads over gilt yields.

¹² A comparison of yields may not provide a measure of the relative premium as the difference in yields for bonds with different maturity reflects 1) the difference in benchmark gilt rate for the two different maturities, and 2) the differences in credit risk. To estimate the WoC debt premium, we need to isolate the difference in credit risk, and therefore our preferred approach is to compare the spread, based on the WoC bond yield-at-issuance over the benchmark gilt yield.

Figure 3.1
Updated market evidence on yield-at-issuance supports a premium for debt costs



Source: NERA Analysis of data from Bloomberg and Bank of England

Overall, we calculate the average spreads at issuance for WoCs and WaSCs to be 1.46 per cent and 1.18 per cent respectively, implying a debt premium of 28 bps as shown in Table 3.1.

Table 3.1
We calculate an average difference in spreads between WoCs and WaSCs of 28 bps

	Average spread to benchmark gilt
Water-only-companies	1.46%
Water-and-sewerage companies	1.18%
Difference (%)	28 bps

Source: NERA calculation of data from Bloomberg and Bank of England

3.1.1. Comparison with Ofwat

Our estimate of the debt premium for WoCs based on bond yields-at-issuance of 28bps is consistent with the 30 bps identified by Ofwat at PR14.¹³

¹³ PwC (August 2014): Company specific adjustments to the WACC, p. 16.

We consider that our analysis is more comprehensive and robust than Ofwat's PR14 analysis, as our sample includes 12 WoC bonds compared to PwC's 7 bonds, and a far greater set of WaSC bonds. At PR14, PwC restricted the sample to bonds issued in the period between January 2008 and June 2014. We do not understand PwC's rationale for excluding the pre-2008 period, particularly given the small number of WoC bond issues for PwC's selected period. In our updated analysis, we have included both pre-2008 bonds and the most recent bond issues since Ofwat's PR14 analysis.

3.2. Updated evidence on traded yields

To estimate the debt premium based on traded yields, we compare debt spreads on WoC nominal bonds relative to debt spreads for comparable WaSC nominal bonds. For index-linked bonds, due to limited data on debt spreads¹⁴, we compare the traded yields of the WoC bonds and WaSC comparators.

To ensure a like-for-like comparison, we identify comparator WaSC bonds using the following criteria:¹⁵

- GBP-denominated bond (to control for currency risk);
- Fixed-rate bond (to control for interest rate risk);
- No embedded options, meaning the bond is not callable or sinkable;
- Bullet bonds, meaning that there is no repayment prior to redemption;
- Credit rating (to control for differences in credit risk); and
- Maturity (to control for differences in spreads over time).

These selection criteria are consistent with the approach taken by Ofwat in PR14, although we also exclude bonds that will mature before 2026, i.e. excluding those with around less than ten years remaining maturity. We exclude short maturity bonds because as a bond approaches maturity, the credit spread will tend to zero since at maturity the spread will be zero by definition. Therefore, we expect any difference in the spread for WoC and WaSCs bonds close to maturity to be low, and will understate the adjustment to debt costs required by Portsmouth Water (which needs to be compensated for the estimated difference in spread at issuance).

Table 3.2 shows the difference in the spread for WoC nominal bonds relative to WaSC comparator bonds, drawing on the above selection criteria. Our analysis shows that the spread for two of the four Affinity Water bonds is negative (i.e. less than the WaSC comparators), and on average the spread across the four bonds approximately zero. By contrast, the spreads for the remaining bonds are higher, with the spread on South East Water bonds around 30 bps. The Bristol Water and South Staffordshire Water bonds all have positive spreads over their WaSC comparators, albeit lower than South East Water.

¹⁴ Bloomberg does not provide a reliable estimate for the spread to benchmark gilt for index-linked bonds.

¹⁵ See Appendix A for the list of WoC bonds and comparators.

We have concerns about the use of Affinity bonds to estimate the required adjustment for Portsmouth Water, given the timing of its securitisation may have affected the traded yield. As noted by PwC at PR14: *“the timing of Affinity Water’s securitisation plays a significant part in reducing the average spread”*¹⁶.

Overall, we consider that the evidence supports an average WoC bond spread relative to the wider industry of 22 bps, excluding Affinity bond spreads which may be affected by the timing of the securitisation.

¹⁶ PwC (August 2014): Company specific adjustments to the WACC, page 16

Table 3.2
Estimates of the debt premium for WoCs based on traded yields

Issuer	AFW	AFW	AFW	SEW	AFW	AFW	BRL	SEW	SSC	Average	Average (exc. AFW)
Type	Nominal	Nominal	Nominal	Nominal	ILD	ILD	ILD	ILD	ILD		
Maturity	7/13/2026	3/31/2036	8/22/2042	3/29/2029	06/01/2045	06/01/2033	3/25/2041	06/03/2041	6/30/2051		
Rating	A3	A3	A3	Baa2	A3	Baa3	Baa1	Baa2	Baa2		
Spread	16.5	-9.9	6.3	31.3	-5.4	1.9	4.7	27.2	24.8	10.8	22.0

Source: NERA analysis of data from Bloomberg

3.2.1. Comparison with Ofwat

Our analysis of the evidence on current yields shows that the on average WoC spread are 11 (including all bonds) to 22 bps (excluding Affinity bonds) above those of the WaSC. As per Ofwat's approach at PR14, we have concerns about the use of Affinity Water bonds as the traded yields may be affected by the timing of its securitisation. Therefore, we consider that we should exclude Affinity from the sample – with the remaining bonds supporting a premium of 22bps.

By contrast to our preferred estimate of 22 bps, for PR14 Ofwat concluded that there was no evidence for a debt premium based on Affinity and South East Water bonds. For small WoCs, PwC did not present any empirical analysis due to an apparent lack of available data; it is not clear to us why PwC did not consider the three Bristol Water and South Staffordshire Water bonds included in our sample.

Our analysis is more comprehensive than Ofwat's analysis at PR14. We present evidence for nine WoC bonds compared to PwC's consideration of only two bonds (for Affinity and South East Water) at PR14. In addition, our comparator set for each WoC bonds contains on average 5 WaSC bonds compared to three comparators used by PwC.

3.3. Conclusions on debt premium

Table 3.3 summarises the results of our updated market evidence compared to Ofwat's PR14 estimates. Our analysis of the empirical evidence on yields-at-issuance shows that WoC spreads are 28 bps above those of the WaSCs consistent with Ofwat's estimate of 30 bps at PR14¹⁷. Our analysis of the evidence on traded yields shows that the on average WoC spreads are 22 bps above those of the comparator WaSC. By contrast, Ofwat found no evidence for a debt premium for traded yields at PR14.

In general, we find more substantive evidence for a debt premium than Ofwat at PR14. Our analysis is more comprehensive and robust, as we draw on a wider set of bonds than Ofwat at PR14 for both yields at issuance and traded yields.

¹⁷ PwC (August 2014): Company specific adjustments to the WACC, page 16.

Table 3.3
Comparison of Ofwat PR14 and NERA updated market evidence for debt premium

Source	Ofwat PR14/ CMA	NERA updated evidence	Comment
Market evidence for bonds			
Yield at issue	30 bps	28 bps	NERA estimate based on all GBP outstanding debt issues; Ofwat restricted to 2008-2014
Traded yields	No evidence	22 bps	NERA estimate based on 5 WoC bonds vs Ofwat's 2 bonds. Excludes AFW where debt costs may be affected by timing of securitisation as noted by Ofwat at PR14
Artesian and bank finance			
Artesian	26 bps (Ofwat) 40 bps (CMA)	26-40 bps	There are no further Artesian issues since PR14, and no further market evidence on relative costs of bank loan finance
Bank loan	20 bps (PR14 BP) 40 bps (survey)	20-40 bps	

Source: NERA analysis of data from Bloomberg, Bank of England, and PwC report.

At PR14, Ofwat determined a 25 bps uplift for debt costs for Portsmouth Water in the lower end of the range of 20 to 40 bps identified by its consultants. It appears that it selected a value towards the lower end of the range, as its advisers considered that the survey evidence supporting a debt premium of 40 bps for bank loans was heavily influenced by one observation.

We disagree with Ofwat's exclusion of survey evidence on bank loans in determining the uplift for higher debt financing cost at PR14. We note that the survey was based on four observations, and excluding the highest estimate for the debt premium will inevitably affect the average – with the average falling from 41 bps to 27 bps.¹⁸ However, likewise, if we exclude the lowest estimate then the average also materially increases to 47 bps. Given the sample size of four, there is no basis for excluding either the lowest or the highest survey response.

Overall, the evidence for a debt premium is greater than at PR14: the evidence from both bonds yield-at-issuance and traded yields is based on a wider sample, and supports a value of around 20 to 30 bps. Taking into account the evidence on Artesian loan finance of 26 bps (Ofwat) to 40bps (CMA), and bank loan evidence of between 20 and 40 bps, we conclude that the evidence supports an uplift for Portsmouth Water's efficient debt costs of 30 bps for PR19.

¹⁸ Ofwat (2014) Final price control determination notice: policy chapter A1 – Annex 3: benefits assessment of an uplift on the cost of capital, p 17.

4. Customer Benefits Test

4.1. Ofwat's customer benefits test

At PR14, Ofwat determined that small WoCs have a higher cost of debt than the wider industry, but subjected the recovery of such costs to a customer benefits test. Ofwat considered that the benefits test was required in order to strike an appropriate balance between its duty to making sure efficient companies are financeable, and its other statutory duties, and in particular its consumer objective.¹⁹

Ofwat constructed the following hypothesis as the basis for its test: it considered that if it did not allow an uplift to debt costs to reflect WoCs' efficient financing costs, companies will experience reduced returns on equity, and may seek to mitigate the loss to equity through a merger. Since Ofwat relies on cross-company benchmarking, it considered that the loss of a comparator from a merger could impact on its ability to set cost and quality performance for the wider industry. The likelihood of a merger and the loss of a comparator therefore constituted a potential justification for an uplift to the cost of debt allowance, in its view.²⁰ Specifically, Ofwat considered how, if no uplift was allowed this would impact:

- the likelihood of a merger occurring (where Ofwat considered the likelihood of a merger would increase by one-sixth to one-third in the absence of an uplift for higher debt costs);
- whether mergers which removed a comparator would result in weaker cost efficiency and service level challenges;
- reduction in financing costs from not allowing an uplift.

Table 4.1 presents the outcome of Ofwat's customer benefits test, which resulted in Ofwat allowing an uplift to allowed debt costs for both Portsmouth and Bournemouth but disallowing an uplift for four of the six companies considered by Ofwat to face higher financing costs.²¹

¹⁹ Ofwat (2014) Final price control determination notice: policy chapter A1 – Annex 3: benefits assessment of an uplift on the cost of capital, p. 11. Link: https://0980a19b0bb02fe4a86d-0df48efcb31bcf2ed0366d316cab9ab8.ssl.cf3.rackcdn.com/wp-content/uploads/2015/10/det_pr20141212riskrewardbenefits.pdf

²⁰ Ofwat (2014) Final price control determination notice: policy chapter A1 – Annex 3: benefits assessment of an uplift on the cost of capital, p 5.

²¹ Ofwat considered that large water-only-companies did not face higher financing costs. Ofwat (2014) Final price control determination notice: policy chapter A1 – Annex 3: benefits assessment of an uplift on the cost of capital, p 3.

Table 4.1
At PR14, Ofwat subjected a company specific adjustment on debt costs to a customer benefits test²²

	BRL	DVW	PRT	SBW	SES	SSC
Wholesale costs benchmark	-19 to -10	-11 to -6	7 to 15	4 to 8	-7 to -4	-4 to -2
SIM	1 to 3	-2 to -1	-0 to -0	2 to 4	1 to 1	2 to 4
WQC*	x	x	✓	✓	✓	x
MZC†	✓	x	x	✓	✓	x
WSt‡	x	✓	✓	✓	x	x
Comparator benefits	-18 to -7	-13 to -7	7 to 15	6 to 12	-6 to -3	0 to 0
Increased financing cost	-13	-2	-4	-4	-6	-9
Net benefits	-29 to -21	-16 to -9	4 to 11	2 to 8	-12 to -9	-9 to -9

The most substantive quantitative factor in Ofwat’s assessment was an estimate of the implied costs associated with losing a comparator for its wholesale cost benchmarking. Ofwat quantified the loss on the basis of the likelihood of the company being in the top efficiency quartile (and hence included in the efficiency benchmarks), and the associated impact of removing them. As shown in Table 4.1, Portsmouth scored well on this criterion, as a relatively efficient company based on Ofwat’s PR14 efficiency analysis.²³

In its recent consultation methodology Ofwat has stated that “*if any company considers its size specifically results in it having higher financing costs than a notionally efficient company, and it considers these should be reflected in a company-specific cost of capital adjustment, we would expect the additional costs to customers would be more than offset by the benefits customers receive from the company.*”²⁴

4.2. CMA review of Ofwat’s test

The CMA considered Ofwat’s customer benefits test as part of the BW 2015 appeal. Overall, the CMA did not consider that Ofwat’s test was relevant, and could result in Ofwat not setting a cost of capital consistent with WoCs’ efficient financing cost.²⁵

The CMA was unconvinced that there was a causal link between the cost of debt required to finance the companies, and the benefits outlined by Ofwat. As a result, it did not believe that the customer benefits test was necessary to meet its duty to customers. The CMA noted that customers of small companies would pay more as a result of the uplift to debt costs.

²² CMA (2015) Bristol Water plc, Appendix A10(1), p. 13. Link: https://assets.publishing.service.gov.uk/media/5627997640f0b6036800001/Appendices_5.1_-_11.1_and_glossary.pdf .

²³ Ofwat (2014) Final price control determination notice: policy chapter A7 - Annex 3: benefits assessment of an uplift on the cost of capital Link: https://www.ofwat.gov.uk/wp-content/uploads/2015/10/det_pr20141212riskrewardbenefits.pdf

²⁴ Ofwat (July 2017) Delivering Water 2020: Consulting on our methodology for the 2019 price review, p.206. Link: <https://0980a19b0bb02fe4a86d-0df48efcb31bcf2ed0366d316cab9ab8.ssl.cf3.rackcdn.com/wp-content/uploads/2017/07/Delivering-Water-2020-Consulting-on-our-PR19-draft-methodology-2.pdf>

²⁵ CMA (2015) Bristol Water plc, para 58. Link: https://assets.publishing.service.gov.uk/media/5627997640f0b6036800001/Appendices_5.1_-_11.1_and_glossary.pdf

However, there are many reasons why bills are different for customers of smaller companies, and it was not clear that this implied a need to adjust the approach to the cost of capital.²⁶

The CMA also noted that regulatory consistency has a beneficial effect. The CMA expressed a concern that removing the debt premium from the notional cost of embedded debt calculation (without evidence of changing market conditions) raised the risk of stranded costs. In particular, it considered Ofwat's approach ran contrary to the reasonable expectation of investors that they could, on average over time, recover the cost of efficiently incurred debt.

In response to the CMA's provisional findings, Ofwat disagreed with the CMA's interpretation of the customer benefits test. The CMA characterises Ofwat's position as follows:²⁷

the new special water merger regime reduces the disincentive on companies to merge if appropriate, to avoid the higher costs associated with smaller companies; and

in that context, the customer benefits test was required to ensure that customers only pay a premium where companies can be shown to demonstrate clear benefits as a comparator.

In response to Ofwat, the CMA stated that in its view the primary consideration in setting the cost of capital was whether efficient companies could finance their functions. The CMA noted that Ofwat accepted that small companies have, on average, a higher cost of capital, and the CMA considered that this should be taken into account in the assumption on the cost of finance.

The CMA added that if Ofwat was concerned that some small WoCs were not efficient, and therefore did not represent good comparators, then it would expect this to be reflected within the price control settlement in its determination of efficient costs.

As well as conceptual concern with the customer benefits test, the CMA also considered Ofwat's assumptions on the likelihood of a merger, and whether any merger would actually result in the estimated customer effects, was subject to a wide range of uncertainty.

4.3. Our review

As per CMA Bristol Water decision, we consider that Ofwat should allow companies their efficient financing cost consistent with its financing duty. Ofwat has acknowledged at all previous reviews that small WoCs face higher debt costs, and our review shows that market evidence continues to support a uplift to small companies' cost of debt allowance. Ofwat's duties require it to secure that companies are able to finance their activities, including by securing reasonable returns on capital.²⁸ This means that Ofwat should set an allowance for Portsmouth Water that reflects the debt premium: there is no requirement to submit the recovery of efficient costs to a consumer benefits test.

²⁶ See: CMA (2015) op. cit. p.309. Link: https://assets.publishing.service.gov.uk/media/56279924ed915d194b000001/Bristol_Water_plc_final_determination.pdf

²⁷ See: CMA (2015) op. cit. p.310.

²⁸ WIA 91 Section 2(2(A)). Link: <http://www.legislation.gov.uk/ukpga/1991/56/section/2>

Setting aside our view that the benefits test is wrong in principle, we also have concerns about the calculation of the benefit. As per companies' submissions at PR14, we do not consider that the quantification of the benefits should be scaled-back by the incremental probability of a merger. The benefit should be defined more straightforwardly as the value of the company as an independent comparator. The only alternative for a WoC that is not allowed to recover its efficient financing costs is for it to eliminate these costs through a merger to form a larger entity (subject to the special merger regime). If a company provides sufficient customer benefit as an independent comparator, then this provides a clear reason to make an allowance for the debt premium. In addition, Ofwat's assumption around the increased likelihood of a merger – of between one-third and one-sixth – is subjective, as noted by the CMA.

At PR14, Ofwat calculated a benefit from retaining Portsmouth as a comparator of between £37 million and £50 million for the wholesale cost modelling alone but then scaled this benefit by the incremental probability of a merger taking place to derive a benefit of between £7 million and £15 million. The gross benefit from setting efficient wholesale costs – of £37-50 million – is far greater than the incremental cost at PR14 of recognising the debt uplift of £4 million.²⁹

Again setting aside our view that the benefits test is wrong in principle, if Ofwat were to apply a customer benefits test at PR19, then there is compelling evidence that Portsmouth Water provides substantive customer benefits given its consistently high-ranking in Ofwat's cost efficiency modelling, and its customer service performance.

At PR14, Ofwat determined that Portsmouth was the third and fifth most cost efficient company based on historical and forward-looking data respectively.³⁰ Furthermore, our analysis shows that Portsmouth Water has been the best ranking WoC on operating costs over successive reviews (see Figure 4.1), and one of the better performers on capital costs. Portsmouth is also the best performer on the service incentive measure (SIM) (see Figure 4.2).

²⁹ Ofwat (2014) Final price control determination notice: policy chapter A7 - Annex 3: benefits assessment of an uplift on the cost of capital, pp. 29&30

³⁰ Ofwat (2014) Final price control determination notice: policy chapter A7 - Annex 3: benefits assessment of an uplift on the cost of capital, pp 28&29.

Figure 4.1
Portsmouth has been a persistently strong performer on Ofwat’s cost assessment:
Water-only-companies’ opex ranking at successive reviews

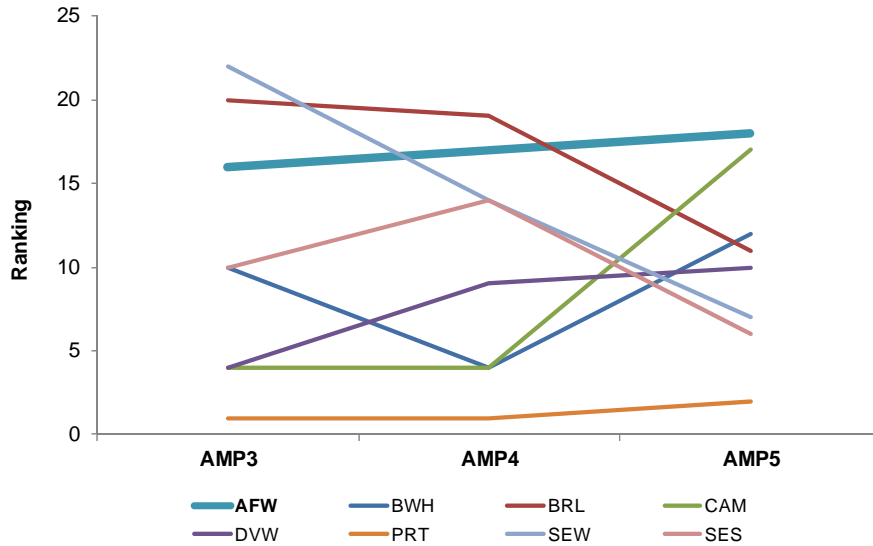
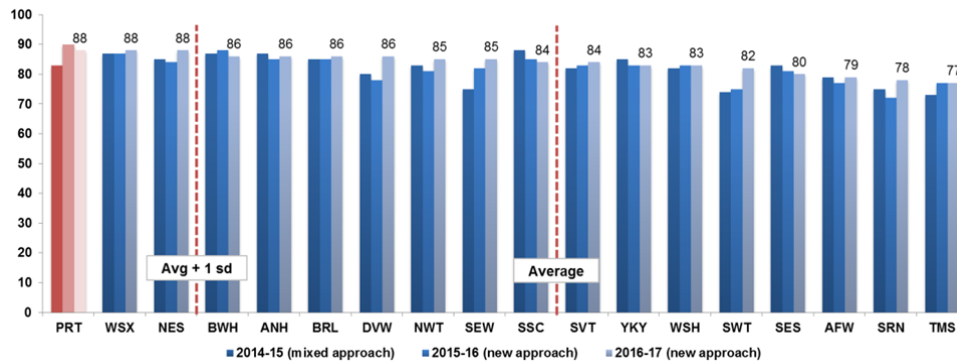


Figure 4.2
Portsmouth is the best performer on SIM over the most recent three year period



4.4. Conclusion

We do not consider that the customer benefits test should be applied in principle, consistent with the CMA 2015 Bristol Water decision. Notwithstanding our concern in principle, our analysis also suggests that Portsmouth Water provides substantive customer benefits, given its cost and service level performance, which are likely to be far greater than the incremental cost associated with allowing for its higher cost of debt finance. For example, Ofwat estimated benefit from wholesale cost modelling for Portsmouth of between £37 and £50 million is a magnitude of order greater than the uplift for the cost of debt at PR14 of £4 million, and the benefit excludes any customer benefit from Portsmouth’s leading performance on the SIM.

5. Conclusions on Portsmouth Water's Company Specific Adjustment for Debt Costs

5.1. Allowance for size

In this report, we have set out updated evidence on a company specific adjustment for Portsmouth Water's debt costs for PR19. Drawing on updated evidence for WoC and WaSC public bond data, as well as evidence for Artesian and bank loan finance at PR14, we conclude that the evidence supports an uplift of 30 bps for PR19.

We have also considered Ofwat's use of customer benefits test at PR14, and its requirement for companies to demonstrate any allowance for the higher cost of debt to be more than offset by customer benefits. We do not consider that the customer benefits test should be applied in principle, consistent with the CMA 2015 Bristol Water decision. Notwithstanding this, Portsmouth Water as an independent comparator provides substantive customer benefits given its cost and service level performance which is far greater than the incremental cost associated with the debt uplift, consistent with Ofwat's conclusions at PR19.

5.2. Allowance for atypical debt structure, and timing of debt issuance

As we have explained in a previous report for Ofwat commissioned by Portsmouth Water, as well as recognising the effects of size on financing costs, Ofwat should additionally allow for a company specific adjustment to reflect Portsmouth Water's atypical debt structure and the associated timing of its debt issues.³¹

To summarise the finding of our earlier report, Ofwat's proposed approach to compensating for embedded debt costs – based on the industry average embedded debt costs – may not compensate Portsmouth Water for its atypical and efficiently incurred embedded debt costs. If Ofwat determines the notionally efficient embedded debt costs based on the industry average, Portsmouth Water's company specific adjustment for embedded debt costs should also reflect the difference between the efficient benchmark value at the time of issuance of its historical debt and Ofwat's determination of the industry average.

Recognising the benchmark debt costs associated with the timing of Portsmouth Water's atypical debt structure would meet Ofwat's objectives for setting the cost of debt allowance as set out in its earlier cost of debt consultation. Namely, setting an embedded cost of debt allowance based on a notional A/BBB benchmark index will ensure that "*customers will only face the efficient cost of debt for a notionally structured company*", and provide incentives "*to minimise debt costs*", given the benchmark is independent of Portsmouth Water's actual costs.³²

³¹ NERA (October 2016) Response to Ofwat's Cost of Debt Consultation for PR19. Link: See: https://www.portsmouthwater.co.uk/wp-content/uploads/2017/01/161017-Ofwat-Cost-of-Debt-Indexation-Mechanism_FINAL.pdf

³² NERA (October 2016) op. cit., p.11

As we also explain in our earlier report, the recognition of the timing of debt issues for companies with atypical debt structures relative to the wider industry, as per Portsmouth Water, is entirely consistent with good regulatory practice, including Ofwat's approach to setting the cost of debt for the Thames Tideway Tunnel, as well as practice in determining debt costs for energy network companies with atypical debt issuance.

Appendix A. Comparators for Public Bond Analysis

In this Appendix, we describe the WoC bond and WaSC comparators employed in our analysis of relative bond spreads.

WoC bond WaSC bond comparators:

	1	2	3	4	5	6	7
A rated issues and comparators							
AFFINITY	ANGLIAN	SEVERN TRENT	UNITED UTILITY	WESSEX	ANGLIA N		
7/13/2026	10/5/2027	1/16/2026	12/20/2027	3/10/2028	1/15/2029		
AFFINITY	UNITED UTILITY	WESSEX	ANGLIAN	THAMES	THAME S		
3/31/2036	2/28/2035	10/14/2033	1/16/2034	7/3/2034	9/28/2037		
AFFINITY	SEVERN TRENT	THAMES	THAMES	-	-		
8/22/2042	1/24/2042	2/11/2041	9/28/2037	-	-		
AFFINITY WATER PROG FIN	ANGLIAN WATER SERV FIN	ANGLIAN WATER SERV FIN	ANGLIAN WATER SERV FIN	UNITED UTILIT WATER LTD	ANGLIA N WATER SERV FIN	UNITED UTILIT WATER LTD	UNITED UTILIT WATER LTD
6/1/2045	7/30/2046	1/28/2046	8/1/2045	2/13/2046	1/28/2046	3/28/2042	4/6/2043
Baa rated issues and comparators							
AFFINITY WATER PROG FIN	SOUTHERN WATER SRVCS FIN	YORKSHIRE WATER SERV FIN	YORKSHIRE WATER SRV ODSA	NORTHUMBRIA N WATER FIN			
6/1/2033	3/31/2034	7/29/2033	7/29/2033	7/15/2036			
SOUTH EAST WATER	SOUTHERN	YORKSHIRE	YORKSHIRE	YORKSHIRE	YORKS HIRE	YORKS HIRE	
3/29/2029	3/31/2029	8/1/2029	4/17/2031	4/17/2031	5/28/2027	5/28/2027	
BRISTOL WATER PLC	NORTHUMBRI AN WATER FIN	YORKSHIRE WATER SRV BRAD	NORTHUMB RIAN WATER FIN				
3/25/2041	1/30/2041	12/30/2039	7/15/2036				
SOUTH EAST WATER FIN LTD	NORTHUMBRI AN WATER FIN	YORKSHIRE WATER SRV BRAD	NORTHUMB RIAN WATER FIN				
6/3/2041	1/30/2041	12/30/2039	7/15/2036				
SOUTH STAFFORDSH IRE WTR	NORTHUMBRI AN WATER FIN	YORKSHIRE WATER SERV FIN	YORKSHIRE WATER SERV FIN	YORKSHIRE WATER SERV FIN			
6/30/2051	7/16/2053	8/1/2051	8/1/2051	2/1/2050			

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