

# Cost of Embedded Debt – analysis of and commentary on Ofwat's PR24 DD position

Prepared for Water UK

–  
August 2024

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# 1. Introduction and scope

On 11 July 2024, Ofwat published the Draft Determination (DD) for PR24. In the DD, it set the cost of embedded debt primarily based on a balance sheet approach. It forms the balance sheet estimate by placing equal weight on the median 'all-in' cost and 'actual-notional cost' across larger companies. It cross-checks the balance sheet estimate using a benchmark index approach.

Water UK has commissioned KPMG to develop a report in relation to Ofwat's DD position on the cost of embedded debt. In particular, the position set out in Ofwat's DD appendix on the KPMG March 2024 CoD report and the accompanying KPMG Tool submitted to it by Water UK.

The scope of this report is to comment on how best to estimate the cost of embedded debt under a sector average approach, such as the balance sheet approach adopted by Ofwat in the DD.

A sector average approach implicitly assumes that the sector average cost represents a good proxy for the efficient cost incurred by the notional company. It is outside the scope of this report to consider whether this assumption is appropriate.

For reference, the confidential information used in the analysis in this report was collected as part of the March 2024 CoD report. This comprises company-specific and sector-wide market information.

The water companies for which company-specific information was collected are Affinity Water, Anglian Water, Bristol Water, Hafren Dyfrdwy, Northumbrian Water, Portsmouth Water, SES Water, Severn Trent Water, South East Water, South Staffs Water, South West Water, Southern Water, Thames Water, United Utilities, Welsh Water, Wessex Water and Yorkshire Water.

The sector-wide market information is based on third-party and publicly available sources.

We draw the reader's attention to the important notice set out in section 12.3.

## 2. Executive summary

On 11 July 2024, Ofwat published the Draft Determination (DD) for PR24. In the DD, it set the cost of embedded debt primarily based on a balance sheet approach. It forms the balance sheet estimate by placing equal weight on the median 'all-in' cost and 'actual-notional cost' across larger companies. It cross-checks the balance sheet estimate using a benchmark index approach.

Water UK has commissioned KPMG to develop a report in relation to Ofwat's DD position on the cost of embedded debt. In particular, the position set out in Ofwat's DD appendix on the KPMG March 2024 CoD report and the accompanying KPMG Tool submitted to it by Water UK.

The key findings of the report are summarised below.

### **In-principle issues implied by Ofwat's balance sheet approach**

Ofwat's balance sheet approach as applied in the DD implies three key in-principle issues.

First, Ofwat's balance sheet approach excludes several categories of instrument. In contrast, the CMA's balance sheet approach at PR19 included all instruments.

Second, Ofwat's balance sheet approach 'double notionalises' the sector's actual cost: (1) the 'all-in' cost is based on instruments that Ofwat considers would have been issued by the notional company. It follows that despite being labelled an 'all-in' cost, it is a notional cost; and (2) the 'actual-notional' cost is based on superimposing the notional debt mix on the already notional 'all-in' cost.

Third, Ofwat's exclusions to company balance sheets are one-sided in that it does not reflect what the plausible counterfactual would have been if the company had not issued the excluded debt.

The implication of these issues is that the balance sheet estimate underfunds the sector's actual cost.

### **Issues for calculating the 'all-in' cost under the balance sheet approach**

Ofwat has reconciled between the 'all-in' cost in its DD balance sheet model and the KPMG Tool. The treatment of each material item in Ofwat's reconciliation is considered in turn below.

#### **Forecast AMP7 issuance**

Ofwat's DD model reflects FY23 debt data and new debt to refinance included instruments maturing in FY24-25. Ofwat's reconciliation suggests that the 'all-in' cost could increase in nominal terms by 27bps if additional new debt in FY24-25 in line with Business Plan data tables is included.

Ofwat has committed to update its DD model at FD to reflect FY24 debt data and new debt for RCV growth in FY25 based on notional gearing. However, Ofwat should reflect RCV growth based on actual gearing to more closely match the sector's actual planned issuance. In addition, Ofwat should refinance excluded instruments maturing in FY25 with new debt for the same reason.

It will be important for Ofwat to cross-check its modelled quantum of new debt against company plans for FY25 debt issuance based on Business Plan data tables.

Separately, Ofwat's DD model raises AMP7 new debt at the DD cost of new debt which is based on the iBoxx A/BBB index. The August 2024 Cost of New Debt and Additional Borrowing Costs report estimates the cost of new debt as iBoxx A/BBB index *plus* 34bps. This represents the cost of new debt for a company with the notional rating and issuing at a tenor in line with the index.

It will be important that at FD the pricing of new debt is in line with recent pricing of water debt. For reference, new debt in FY24 was issued at yields above the iBoxx A/BBB index *plus* 34bps.

#### **Effective interest rate and accretion on index linked debt**

Ofwat is consulting on whether to adjust its DD model to (1) accrete the principal balance on index linked debt over AMP8; and (2) allow bespoke effective interest rates to be entered for index linked debt not issued at par.

It is positive that Ofwat has recognised these issues with its DD model and is consulting on whether to amend for them. These issues should be amended to reflect how the cost on index linked debt are modelled in practice and thus improve the accuracy of Ofwat's model.

Additional clarity on how these amendments will be implemented in practice is welcome.

Ofwat's reconciliation suggests that the 'all-in' cost could increase in nominal terms by 1bp after amending for the accretion issue and by 7bps after amending for the effective interest rate issue.

### **Treatment of swaps**

Ofwat includes only the cost of cross-currency swaps in the 'all-in' cost. However, the cost of all swaps should be included in the 'all-in' cost for the reasons set out below.

First, the sector routinely uses swaps and thus consider swaps to form part of an efficient strategy. In the same vein, the exclusion of swaps appears to depart from the principle that underpins the balance sheet approach. This is the principle that, like for other sector average approaches, what the sector has done on average represents the proxy for efficiency.

Second, the sector uses swaps for efficient purposes:

- Interest rate swaps to hedge the cost of new debt allowance.
- Inflation swaps to (1) raise synthetic index linked debt during times of illiquidity in the direct debt market; (2) achieve cheaper pricing than in the direct debt market; and (3) hedge CPIH basis risk.
- Cross-currency swaps to hedge currency risk on foreign bonds. Companies raise debt in foreign debt markets to widen their investor pool and in turn achieve cheaper pricing.

There are a small number of swaps that have been used for cash profiling which could distort debt costs over time. However, the cash profiling component was removed in the KPMG Tool.

Third, Ofwat appears to have determined ex-post that swaps would not have been issued by the notional company. This is because Ofwat only explicitly considered swaps for the first time at PR19 and in any case its decision to exclude swaps at PR19 was ultimately overturned by the CMA. Further, Ofgem ensured that swaps costs were covered by its cost of debt allowance at RIIO-2.

Fourth, if Ofwat decides to exclude swaps, it should put in place a plausible counterfactual which would similarly have achieved companies' risk management objectives at the time. For example, it should replace a synthetic index linked bond (via fixed rate bond *plus* inflation swap) with a direct index linked bond. However, this counterfactual may be more expensive than the factual.

Ofwat's reconciliation suggests that the 'all-in' cost could increase in nominal terms by 11bps if interest rate and inflation swaps are included. It will be important for these costs to be included at FD.

### **Role of the 'actual-notional' cost in the balance sheet approach**

Ofwat considers the 'actual-notional' cost aligns with its long standing principle that companies are responsible for their own financing choices. However, no weight should be attached to this cost for the reasons set out below.

First, the incentive benefit of including the 'actual-notional' cost is limited. This is as companies cannot change their past decisions (embedded debt), only their future decisions (new debt).

Second, the 'actual-notional' cost as calculated by Ofwat does not solely adjust a company's portfolio for the notional debt mix. It also adjusts for timing of issuance. In consequence, it does not fulfil the purpose for which it was designed.

Third, the 'actual-notional' cost can provide a misleading view of the actual sector cost:

- Ofwat's 'all-in' and 'actual-notional' costs vary materially at the company-level.
- Ofwat's 'all-in' and 'actual-notional' costs are both variants of a notional cost so provide limited insight about the actual sector cost.
- KPMG's 'all-in' cost closely proxies the actual sector cost. The KPMG Tool indicates that 'all-in' and 'actual-notional' costs vary materially at both the company- and sector-level.

As a result, the inclusion of the 'actual-notional' cost could result in the average company being underfunded for its actual cost.

### **Benchmark index cross-check to the balance sheet approach**

Ofwat adopts the benchmark index approach as a cross-check for its balance sheet approach. However, no weight should be attached to this cross-check for the reasons set out below.

First, the use of cross-checks could result in the allowance being set at a different level to the balance sheet estimate. This would undermine the principle behind the sector average approach that the sector average cost represents the proxy for the efficient cost.

Second, Ofwat seeks to use the benchmark index approach as a cap rather than a cross-check. This asymmetry (1) undermines incentives for the sector to issue efficiently against the benchmark; and (2) means companies may not be able to recover actual costs on average.

Third, it is challenging to calibrate a benchmark trailing average that precisely takes account of macroeconomic volatility and the sector's timing, tenor and mix of debt issuance. This means that any benchmark trailing average will be less robust than the balance sheet estimate.

The CMA at PR19 asserted that, at a minimum, differences between the balance sheet estimate and benchmark index estimate should be carefully investigated.

## 3. Context and structure

This section outlines the context and structure for the report.

### 3.1. Context

On 11 July 2024, Ofwat published the DD for PR24. Ofwat's DD estimate of the cost of embedded debt is 4.51% (nominal) or 2.46% (CPIH-deflated).

Ofwat has retained its Final Methodology (FM) position for estimating the cost of embedded debt. Its estimate is primarily based on the balance sheet approach and cross-checked using the benchmark index approach. This cross-check is intended to serve as a cap on the balance sheet approach.

Ofwat's specification of the balance sheet approach has not changed. It places equal weight on the 'all-in' and 'actual-notional' cost of the median company across the WaSC and large WoC group. It excludes swaps and debt instruments it considers are non-standard such as junior debt.

Ofwat's DD balance sheet model estimates an 'all-in' cost of 4.52% and an 'actual-notional' cost of 4.50% which leads to a balance sheet estimate of 4.51% (nominal).

Ofwat has moved on a number of methodological issues in its FM model, although only a proportion of these have been amended in its DD model. If the remaining issues are amended in its Final Determination (FD) model, they could reduce the material gap between Ofwat's DD estimate of the 'all-in' cost and the actual cost for the sector. The remaining issues are:

- Ofwat has agreed to include new debt to finance RCV growth over the remainder of AMP7 based on 60% notional gearing.
- Ofwat is consulting on whether to accrete the principal balance of index linked debt over AMP8.
- Ofwat is consulting on whether to allow bespoke effective interest rates to be entered for index linked debt not issued at par.

However, even after these amendments, there could remain a gap between Ofwat's balance sheet estimate at FD and the actual sector cost. This is because Ofwat forms its balance sheet estimate by placing equal weight on its 'all-in' cost and 'actual-notional' cost.

Ofwat's benchmark index approach in the DD comprises of simple, uniform collapsing and weighted collapsing 15Y and 20Y trailing averages of the iBoxx A/BBB index.

The weighted collapsing average is an additional benchmark for the DD which was not included in the FM. This average takes into account the amount of debt that would have been required each year for RCV growth if companies had raised debt in line with the notional structure at the time.

Ofwat's benchmark index range is 3.86-4.57% (nominal). Its balance sheet estimate of 4.51% (nominal) sits at the upper end of, but does not exceed, this range. Ofwat ultimately set the cost of embedded debt based on its balance sheet estimate.

## 3.2. Structure

This report is structured as follows:

- Section 4 considers the principles behind Ofwat's balance sheet approach.
- Section 5 bridges between the 'all-in' cost in Ofwat's balance sheet model and the KPMG Tool.
- Section 6 considers key changes to Ofwat's balance sheet model signalled in the DD.
- Section 7 considers exclusion criteria for the 'all-in' cost under Ofwat's balance sheet approach.
- Section 8 considers data differences between Ofwat's balance sheet model and the KPMG Tool.
- Section 9 considers the KPMG Tool as an input to refine Ofwat's balance sheet model.
- Section 10 considers the role of the 'actual-notional' cost in Ofwat's balance sheet approach.
- Section 11 considers potential cross-checks to Ofwat's balance sheet approach.



## 4. Key in-principle issues implied by Ofwat's balance sheet approach

This section outlines the key in-principle issues implied by Ofwat's balance sheet approach in the DD.

First, Ofwat has characterised its balance sheet approach as “...based on debt instruments relevant for the notional company that are observed on company balance sheets for the larger companies”<sup>1</sup>.

This departs from the CMA's position at PR19. The CMA also used a balance sheet approach but included the cost of all debt instruments. The CMA explained that it “...included all debt costs, including those 'non-pure' costs previously disputed in Ofwat's balance sheet approach, negating much (but not all) of the disagreement on the correct measurement of actual debt costs”<sup>2</sup>.

Second, (a) Ofwat has specified the notional company for its balance sheet approach ex-post; and (b) this notional company does not resemble any one company or the average company in the sector.

On (a), Ofwat did not signal ex-ante what the notional company would or would not issue. For example, Ofwat considers that the notional company would not issue wrapped debt or swaps. However, Ofwat does not appear to have mentioned wrapped debt in previous price reviews and only explicitly communicated a position on swaps for the first time at PR19.

It is only appropriate for Ofwat to signal policy ex-ante (new debt), not ex-post (embedded debt).

On (b), Table 4 shows that no one company meets every criteria of the notional company and accordingly, neither would the average company in the sector. It appears that Ofwat's notional company exists only in laboratory conditions, not in the real world.

Even larger companies that are close to notionally geared (WSH, SVH and U UW) have raised debt instruments which Ofwat considers the notional company would not have issued. For example, all three companies actively use swaps and WSH has made use of wrappers in the past.

In consequence, Ofwat's notional company does not represent an achievable benchmark.

Third, Ofwat's balance sheet approach 'double notionalises' the sector's actual cost:

- The first round of notionalisation is in the calculation of the 'all-in' cost. Ofwat sanitises company balance sheets for categories of instrument that it considers would not have been issued by the notional company. It follows that despite being labelled the 'all-in' cost, it is a notional cost.
- The second round of notionalisation is in the calculation of the 'actual-notional' cost. Ofwat superimposes the notional debt mix on the already notional 'all-in' cost.
- Ofwat applies equal weight to both of these notional costs to form its balance sheet estimate.

The result of Ofwat's 'double notionalisation' is that its balance sheet estimate does not reflect the reality of the sector's actual cost<sup>3</sup>. In practice, this means that Ofwat's balance sheet estimate underfunds the sector's actual cost.

This contravenes the principle underpinning the balance sheet approach, like other sector average approaches, that the sector's actual cost is the proxy for the efficient cost.

Fourth, Ofwat's exclusions to company balance sheets are one-sided in that it does not reflect what the plausible counterfactual would have been if the company had not issued the 'excluded' debt.

For example, Ofwat excludes wrapping fees but retains the very low coupons of wrapped debt which typically had an AAA rating at inception. This counterfactual assumes that the actual (or notional) company could have raised AAA rated debt without a wrapper. This is not a plausible counterfactual.

<sup>1</sup> Ofwat (2024), PR24 Draft Determination, Aligning risk and return, p. 18.

<sup>2</sup> CMA (2021), PR19 Final Determination, para. 9.552.

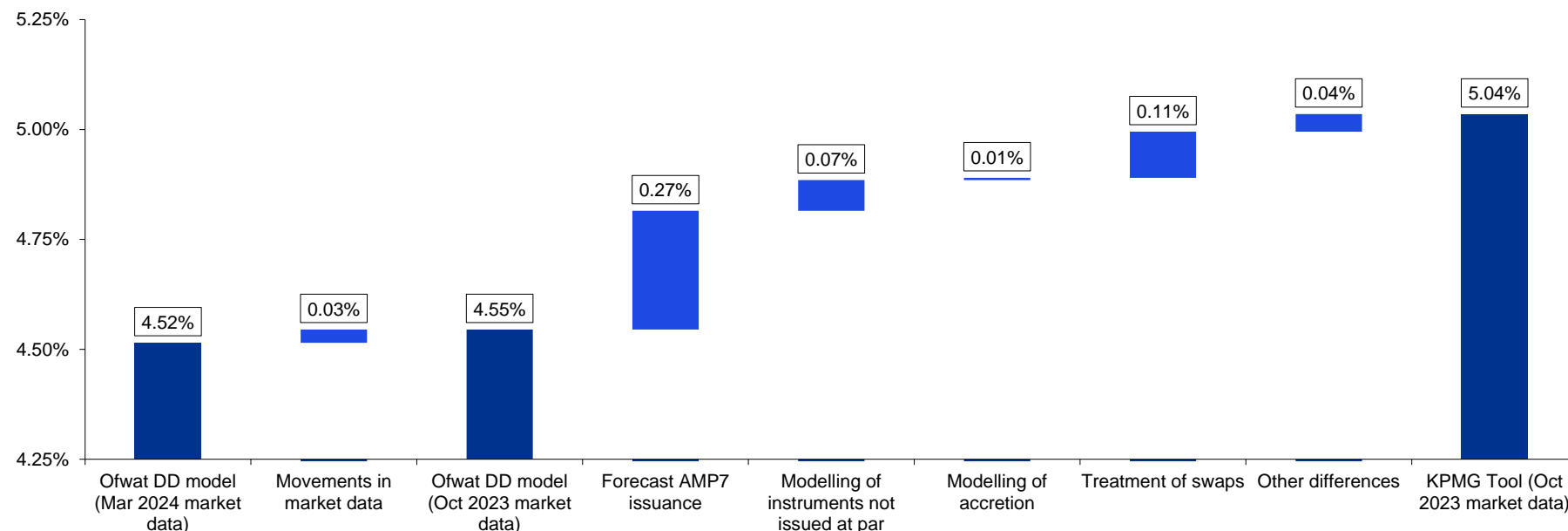
<sup>3</sup> Ofwat critiques the March 2024 CoD report for its focus on the sector's actual costs, noting that: “KPMG's focus appears to be on understanding the cost of debt taking account of actual financing choices of the companies”. See Ofwat (2024), PR24 Draft Determination, Ofwat comments on cost of debt report submitted by Water UK, p. 8.

Fifth, Ofwat has effectively carried out a downside-only ex-post review of the sector's actual cost as its exclusions to company balance sheets seem only to decrease costs. It does not appear to have carried out a balanced assessment which could result in exclusions that both increase and decrease costs. For example, there are a number of debt instruments in the sector that have a higher rating than the notional company. These could in principle be excluded which would increase costs.

## 5. Bridging between the ‘all-in’ cost in Ofwat’s balance sheet model and the KPMG Tool

Ofwat’s DD balance sheet model estimated an ‘all-in’ cost of 4.52% in nominal terms. The March 2024 CoD report estimated an ‘all-in’ cost of 5.04% in nominal terms based on the March 2024 KPMG Tool. Ofwat has reconciled between these two estimates as set out in the chart below.

**Figure 1: Reconciliation of the ‘all-in’ cost in the Ofwat DD model and KPMG Tool (nominal)**



Notes: (1) Based on 2023 debt data; (2) Ofwat reconciles to the February 2024 KPMG Tool in the DD but the chart is based on the March 2024 KPMG Tool  
Source: KPMG analysis and data from PR24 DD

The material bridging items in the chart are discussed in the preceding sections. In particular:

- Section 6 discusses (1) forecast AMP7 issuance; (2) modelling of instruments not issued at par; and (3) modelling of accretion.
- Section 7.2 discusses the treatment of swaps.

## 6. Key changes to Ofwat's balance sheet model signalled in the DD

This section considers the key changes that Ofwat has signalled could be made to its DD balance sheet model at FD.

### 6.1. Forecast new debt issuance

The impact of new debt issuance over the remainder of AMP7 on the cost of embedded debt depends on the quantum of new debt and the cost of new debt. This section considers Ofwat's approach to both in the DD balance sheet model and potential changes at FD.

#### 6.1.1. Quantum of new debt

Ofwat's DD balance sheet model is based on debt data as at FYE 23. It includes new debt to refinance 'included' debt instruments maturing in FY24-25. It does not include new debt to finance RCV growth in FY24-25.

Ofwat's reconciliation suggests that the 'all-in' cost could increase in nominal terms by 27bps if additional new debt in FY24-25 in line with Business Plan data tables is included. For clarity, this relates to the quantum, not the cost, of new debt in FY24-25.

Ofwat has committed to update its model at FD to reflect debt data as at FYE 24 and new debt for RCV growth in FY25 based on notional gearing.

This is a welcome change and will help narrow the gap between Ofwat's assumed and company's planned new debt issuance. However, Ofwat has not addressed three key issues that were highlighted in the September 2023 CoD note which means a gap will still remain<sup>4</sup>.

First, Ofwat will include new debt for RCV growth in FY25 based on 60% notional gearing. However, this should be based on companies' actual gearing to more closely match their planned issuance. This would also be consistent with Ofwat's approach to (1) new debt for refinancing; (2) and the current balance sheet, where it does not make direct gearing-based adjustments. For example, it does not adjust debt issued in AMP7 to date to reflect notional gearing.

Second, Ofwat will not refinance 'excluded' instruments that mature in FY25 with new debt. It implies in the DD that 'excluded' instruments should have no bearing on current or future costs.

This position is over simplified. It assumes that all 'included' instruments can only be traced back to other 'included' instruments throughout their history. However, it could plausibly be the case that e.g. an index linked bond on balance sheet today was used to refinance a fixed rate bond with an inflation swap overlay. Ofwat's position would imply that this index linked bond should be excluded.

Hence, the appropriate position for the refinancing of 'excluded' debt is to assume it is replaced with new 'included' debt. To this end, Ofgem at RIIO-2 *"excluded intercompany loans from embedded debt costs but assumed they are refinanced at their maturity with 20-year fixed rate debt raised at the forecast benchmark rate for that year"*<sup>5</sup>.

Third, Ofwat has only partially addressed that its FM balance sheet model does not refinance principal repayments on amortising debt over the remainder of AMP7 with new debt. The DD model refinances principal repayments for amortising debt that matures in AMP7 but not for amortising debt that matures after AMP7. This should be corrected for in the FD model.

It would be expected that if the three issues above were addressed, Ofwat's modelled quantum of new debt for refinancing and RCV growth would more closely match company's planned issuance for

<sup>4</sup> KPMG (2023), Initial commentary on the Balance Sheet Cost of Debt Model and implications for the cost of embedded debt, p. 2-5.

<sup>5</sup> Ofgem (2022), RIIO-ED2 Draft Determination – Finance Annex, para. 2.59.

FY25. However, it will be important for Ofwat to cross-check its modelled quantum of new debt against company plans for debt issuance in FY25 based on Business Plan data tables.

### 6.1.2. Cost of new debt

Ofwat's FM balance sheet model refinanced fixed and index linked debt maturing in AMP7 at the FM cost of new debt, which was based on the iBoxx A/BBB index *less* 15bps benchmark index adjustment. The FM model refinanced floating rate debt maturing in AMP7 at the same SONIA compounding period and margin as the maturing instrument.

The FM model contained an error whereby it partially double-counted the cost of new debt raised over AMP8: (1) Ofwat provides separate allowances for the cost of new and embedded debt; but (2) the FM model refinanced embedded debt maturing in AMP8 with new debt and included the cost of this new debt in the cost of embedded debt. This error was highlighted in the September 2023 CoD note.

Ofwat's DD model refinances all debt maturing in AMP7 at the DD cost of new debt which is based on the unadjusted iBoxx A/BBB index. Ofwat has corrected for the double-count error in its DD model.

The March 2024 KPMG Tool refinanced debt maturing in AMP7 at the CMA PR19 cost of new debt which was based on the unadjusted iBoxx A/BBB index. As Ofwat's DD model adopts the same, this has helped reduce the gap between Ofwat's and KPMG's estimate of the 'all-in' cost.

The August 2024 Cost of New Debt and Additional Borrowing Costs report estimates the cost of new debt as the iBoxx A/BBB index *plus* 34bps based on the latest market data. This represents the cost of new debt for a company with the notional rating and issuing at a tenor in line with the index.

This cost of new debt is 34bps higher than Ofwat's DD cost of new debt which would increase the estimate of the all-in cost relative to that in Ofwat's DD model, all else equal. Ofwat should consider changing its cost of new debt at FD to reflect the latest market data.

For reference, new debt in FY24 was issued at yields above the iBoxx A/BBB index *plus* 34bps.

## 6.2. Effective interest rate and accretion on index linked debt

Ofwat is consulting on whether to adjust its DD balance sheet model to:

- Accrete the principal balance on index linked debt over AMP8.
- Allow bespoke effective interest rates to be entered for index linked debt not issued at par.

It is positive that Ofwat has recognised these issues with its DD model and is consulting on whether to amend for them. These issues should be amended to reflect how the costs on index linked debt are modelled in practice and thus improve the accuracy of Ofwat's model.

Ofwat has not yet outlined the exact mechanism for how it will make these amendments. For example, it is not clear how the bespoke effective interest rates for index linked debt not issued at par will be calculated. Additional clarity on how these amendments will be implemented is welcome.

The March 2024 report outlined the modelling approach taken in the KPMG Tool to address both these issues, which Ofwat could adapt for its FD model<sup>6</sup>.

Ofwat's reconciliation suggests that the 'all-in' cost could increase in nominal terms by 1bp after amending for the accretion issue and by 7bps after amending for the effective interest rate issue.

<sup>6</sup> KPMG (2024), Estimating the Cost of Embedded Debt and Share of New Debt for PR24, p. 57-59.

## 7. Exclusion criteria for the ‘all-in’ cost under Ofwat’s balance sheet approach

This section considers Ofwat’s position on wrapping fees and swaps.

### 7.1. Wrapping fees

Ofwat in the FM inadvertently took into account the benefit of wrapped debt without the associated cost, and in the DD explicitly does so. This section considers whether this position is appropriate.

#### 7.1.1. Use of wrappers

Wrapped debt is an instrument for which a company has paid fees to a monoline insurer to provide a guarantee to investors that they will be repaid even if the debt defaults. Companies wrapped their debt to achieve a better issue rating and pricing (even after fees to the monoline). Wrapped debt typically had a AAA rating at inception in line with the rating of monolines at the time.

ANH, SRN, WSH, SES and SSC still have outstanding wrapped debt on balance sheet<sup>7</sup>.

#### 7.1.2. Ofwat’s policy on wrappers in previous price reviews

Ofwat does not appear to have mentioned wrappers in previous price reviews. Ofwat’s position on excluding wrapping fees appears to have been made for the first time in the DD. The implication is that Ofwat has decided ex-post that the notional company would not use wrappers.

#### 7.1.3. Counterfactual

Ofwat considers that wrapping fees can be excluded but the very low coupons of wrapped debt retained because the notional company would not need to incur such fees to raise highly rated debt. This position effectively assumes that in the counterfactual without wrapping, the notional company could have raised debt with the same rating as that of wrapped debt.

First, this is not a plausible counterfactual for the notional company. The current notional company has a Baa1 rating and so clearly could not raise AAA rated debt without wrapping. It follows that the correct counterfactual for the notional company without wrapping is a Baa1 rated issuance.

Second, the key consideration is not the counterfactual for the notional company but rather for the actual company. Ofwat’s position on wrapping fees goes beyond making exclusions to actual company balance sheets; it seeks to retrofit actual issuances for the notional company. This is not appropriate. The counterfactual for the actual company without wrapping would be an issuance with the same rating that the actual company had at the time.

Wrapping fees are not a material bridging item between Ofwat’s estimate of the ‘all-in’ cost and the actual sector cost. However, Ofwat’s position on wrapping fees is a striking example for the one-sided nature of the exclusions it makes to company balance sheets. Thus it is important to highlight its position on wrapping fees as a matter of principle.

In conclusion, Ofwat should as a matter of principle either reflect the correct counterfactual without wrapping for the actual company or include wrapping fees. The latter will be simpler to implement and lead to a lower cost for customers than the former.

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<sup>7</sup> Based on the KPMG dataset for 2023 debt data.

## 7.2. Swaps

Ofwat has retained its FM position of excluding all swaps in its balance sheet approach except cross currency swaps. This section considers whether this position is appropriate.

### 7.2.1. Use of swaps

Ofwat considers that its decision to exclude swaps would not disincentivise companies to adopt efficient financing strategies. However, the majority of the sector, including companies with near notional gearing, routinely uses swaps. This suggests that the sector considers swaps to form part of an efficient financing strategy. In consequence, Ofwat's exclusion of swaps could be interpreted as disincentivising efficient financing strategy.

In addition, it appears to depart from the principle that underpins the sector average approach that what the sector has done on average represents the proxy for efficiency.

This section explores why companies have used swaps as part of their financing strategies and whether this use of swaps is efficient.

#### Interest rate swaps

Interest rate swaps have been used to match Ofwat's cost of debt for the notional company.

UW has signalled that it has used interest rate swaps in this way since 2008<sup>8</sup>. As a recent example, its policy on interest swaps for AMP7 has been outlined below.

For context, Ofwat's new debt allowance for AMP7 was based on a share of new debt of 20% and a cost of new debt indexed to the iBoxx A/BBB index i.e. a floating rate.

UW's policy for AMP7 has been to raise long-term fixed rate debt and convert this into floating using interest rate swaps at inception for the life of the debt. It uses a second layer of interest rate swaps to revert the synthetic floating rate debt back to fixed on a 10Y reducing balance basis. At the start of AMP7, a proportion of the debt book remained floating, reflecting the 20% share of new debt, until it is fixed via the 10Y reducing balance mechanism. UW's rationale for this is to approximate Ofwat's new debt allowance and thus the new debt issuance of the notional company.

UW's policy suggests that the only way for actual companies to mimic the notional company's debt issuance in practice is through the use of interest rate swaps. This appears reasonable since no company can issue benchmark debt on a daily basis as implied by the new debt allowance.

NGN has adopted a similar strategy to match Ofgem's cost of debt for the notional company in RIIO-2. NGN states in its annual report that: *"In practice, most floating rate debt, in addition to debt issued at fixed rate and swapped back to floating rate for life, has its rate re-fixed with interest rate swaps on a staggered basis in order to align the rate re-fixing profile on this debt with the regulatory cost of debt allowance, which is calculated with reference to a trailing average of certain corporate bond yields"*<sup>9</sup>.

Ofwat's primary reason for excluding swaps is that it does not consider the notional company would have issued these instruments. However, companies have used interest rate swaps to proxy the notional company's debt issuance profile which is not directly achievable. It does not appear reasonable to exclude interest rate swaps from company balance sheets in this context.

#### Inflation swaps

Inflation swaps have been used to efficiently create synthetic index linked debt.

<sup>8</sup> Table 3 sets out UW's treasury policy on interest rate risk over 2008-2024.

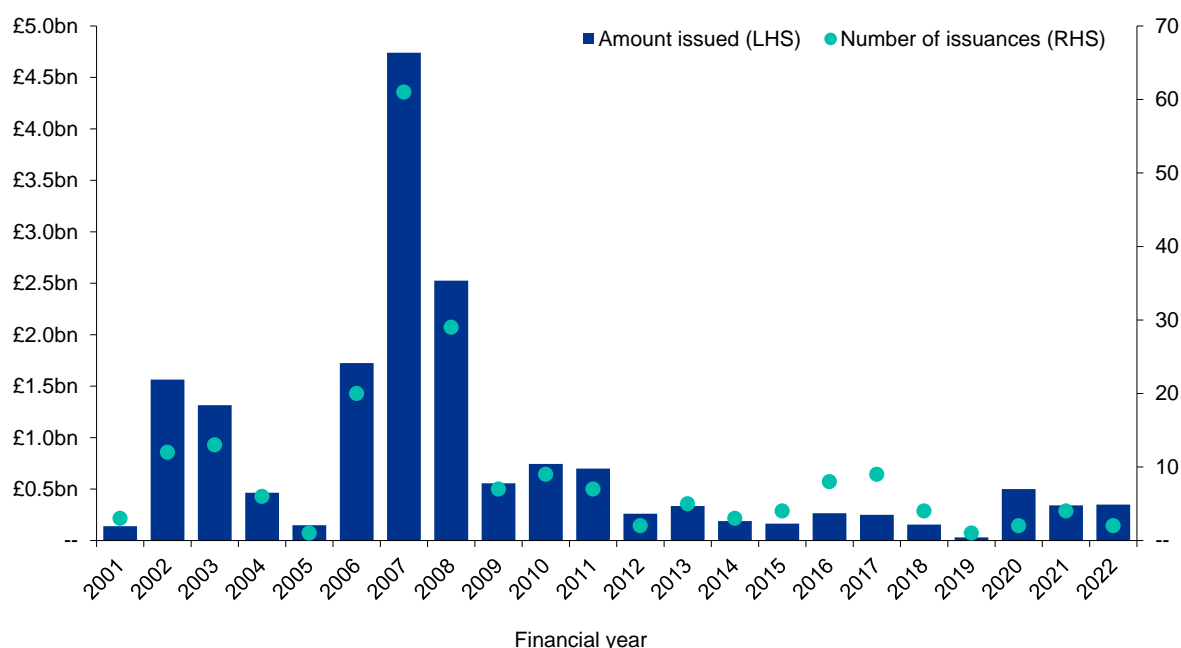
<sup>9</sup> NGN (2023), Annual report 2023, p. 5.

First, the market for direct index linked debt has been completely illiquid at various points in the past, such as during the global financial crisis. During these periods of illiquidity, the only means for companies to maintain their proportion of index linked debt was to raise this synthetically through index linked swaps. This has been recognised by Ofwat and others:

- Moody's: "...as the availability of index-linked bonds at attractive rates subsided with the dawn of the 2008-09 global financial crisis, issuers sought other means to achieve the benefits that index-linked debt can provide. In many cases, they have turned to synthetic index-linked debt, effectively being a conventional fixed-rate bond swapped to index linked"<sup>10</sup>.
- CMA: "They [companies] may also be required to...increase the use of derivatives in the face of a lack of suitable index-linked debt available at desired maturities"<sup>11</sup>.
- CMA: "Such [index linked] debt may not always be available from the markets in the quantities or calibrations required – leading companies to synthetically create them using derivatives"<sup>12</sup>.
- CEPA for Ofwat/CAA: "...the lack of liquidity in the index-linked, bond market makes execution easier in the nominal bond market"<sup>13</sup>.
- Ofwat/Ofgem: "In the past there may have been limited appetite for direct issuance of corporate index-linked debt due to a limited number of investors and constraints on their portfolios"<sup>14</sup>.
- Ofwat: "Although there has been some issuance of index-linked debt since our draft determinations, evidence of market appetite for the issuance of new index-linked debt remains limited... It is possible that the debt markets could recover such that companies will be able to issue index linked debt either directly or through swap arrangements"<sup>15</sup>.

The chart below illustrates that index linked bond issuance by water and energy sectors peaked in 2007 and subsequently reduced to very low levels after the financial crisis.

**Figure 2: Index linked public bonds issuances by water and energy sectors over 2001-2022**



Source: KPMG analysis and data from Bloomberg, Refinitiv, Ofwat FM balance sheet model and DNO annual reports

<sup>10</sup> Moody's (2012), UK Regulated Utilities - Why Index-Linked Swaps May Not Provide the Same Cash Flow Benefit as Index-Linked Bonds, p. 3.

<sup>11</sup> CMA (2021), Water Redeterminations 2020, Cost of Debt – Working Paper, para. 122.

<sup>12</sup> CMA (2021), RIIO-2 Final Determination, Volume 3: Individual grounds, para. 14.219.

<sup>13</sup> CEPA (2016), Ofwat and CAA - Alternative approaches to setting the cost of debt for PR19 and H7, p. 197.

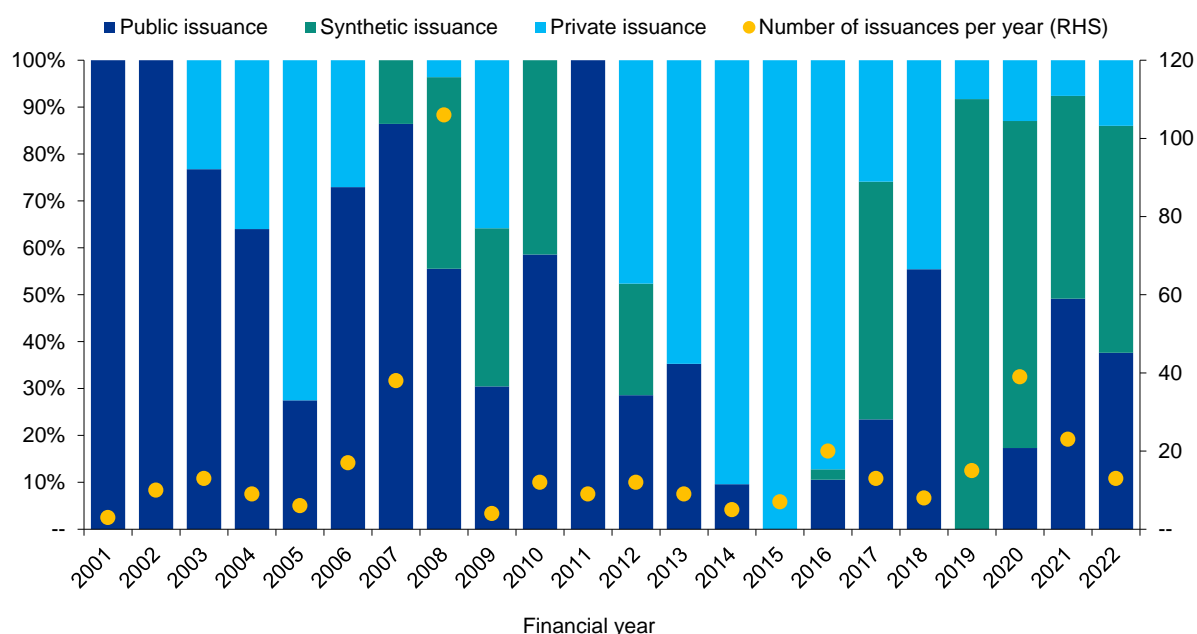
<sup>14</sup> Ofwat and Ofgem (2006), Financing Networks: A Discussion Paper, para. 148.

<sup>15</sup> Ofwat (2009), Future water and sewerage charges 2010-15: Final determinations, p. 139-140.



At the same time, the proportion of index linked debt issued synthetically in the water sector increased significantly during and after the financial crisis as shown in the chart below. Further, the uptick in synthetic index linked debt observed after 2017 in the chart is likely driven by (1) Brexit which removed the option to access direct index linked debt from the EIB; and (2) the move from RPI to CPIH indexation in the context of nascent markets for direct issuance in CPI and CPIH.

**Figure 3: Proportion of direct and synthetic index linked debt in 2022 APR water portfolios**



Source: KPMG analysis and data from Ofwat FM balance sheet model

Relatedly, on a forward looking basis, companies may need to access the index linked swap market to match the notional company's proportion of index linked debt at AMP8. There may not be sufficient liquidity in the direct index linked debt market to accommodate the sector's requirement for index linked debt, implied by the scale of RCV growth and notional proportion of index linked debt.

Second, raising synthetic index linked debt has been cheaper than equivalent direct issuance at different times in the past.

Companies are incentivised to minimise costs and therefore it would be expected that where they have entered into synthetic positions, this represents the lowest cost option. Indeed, CEPA for Ofwat/CAA recognised that companies use swaps to secure the optimal outcome:

- "There is no evidence of derivatives being used for speculative purposes, but rather as a way to compensate for shifts in demand in the underlying capital markets, which have meant that companies have not been able to secure their optimal debt position from direct issuance alone"<sup>16</sup>.
- "Corporate Treasurers thus triangulate between maturity needs, relative investor demand at a maturity for IL debt vs nominal and their outstanding swap positions and hence swap market access, in order to decide what debt to issue in a particular moment in time"<sup>17</sup>.

Notwithstanding the incentives for companies, there are good reasons for why companies may achieve cheaper pricing via synthetic positions.

It is widely recognised by banks that there is greater demand from institutional investors in the inflation swap market compared to the inflation linked corporate debt market<sup>18</sup>.

<sup>16</sup> CEPA (2016), Ofwat and CAA - Alternative approaches to setting the cost of debt for PR19 and H7, p. 199.

<sup>17</sup> Ibid., p. 197.

<sup>18</sup> Based on KPMG's bank survey covered in the August 2024 Cost of New Debt and Additional Borrowing Costs report.

One major bank explained that similar investors (pension funds and insurance companies) trade in both markets. These investors break up their investment activities into separate mandates (e.g. equities, corporate debt, government debt) and run overarching liability hedges centrally (e.g. inflation risk, rate risk). Most investors prefer not to mix corporate credit risk (managed in their corporate debt portfolio) with liability hedging (typically managed centrally). In consequence, demand for inflation linked corporate debt tends to be limited compared to that for inflation swaps.

Further, CEPA for Ofwat/CAA explored why some companies prefer index linked swaps to direct issuance. It considered that *“one explanation is that the spread on index-linked debt is typically larger than a comparable spread on nominal debt. Others include the difference in implied inflation breakeven rates between the swap and index-linked bond market”*<sup>19</sup>. This also seems to suggest that it may have been cheaper to raise synthetic index linked debt.

Third, Ofwat has implemented a full transition to CPIH at AMP8 but the market for direct CPI/CPIH debt is still developing. In this context, companies have tapped the basis swap market to proactively manage the mismatch between their embedded RPI debt and CPIH assets at AMP8.

For example, U UW has transacted both RPI-to-CPI and RPI-to-CPIH basis swaps: *“...we have made good progress in transitioning the mix of our index-linked debt away from RPI-linked...to CPI or CPIH-linked...including last summer executing the first ever CPIH-linked swap”*<sup>20</sup>.

U UW and SVE have both transacted such swaps according to their 2024 APRs<sup>21</sup>.

In conclusion, inflation swaps have been used efficiently by companies and are likely to have led to lower costs than the counterfactual of direct index linked debt issuance.

### Currency swaps

Ofwat has included cross-currency swaps in its balance sheet approach. It follows that the notional company is expected to make use of cross-currency swaps.

This appropriately recognises that companies have sought to widen their investor pool and thus lower costs by accessing foreign debt markets. Currency swaps are a core component of these transactions as they fix foreign interest payments in sterling which ensures consistency with sterling revenues.

Interest rate and inflation swaps like cross-currency swaps are an indivisible component of financing strategies. However, Ofwat has not explained why the notional company would only be expected to hedge currency risk, not interest rate or inflation risk through swaps.

### Risky use of swaps

Ofwat considers that some companies may have used swaps for risky purposes which may not be reflective of the behaviour of the notional company.

These risky purposes have been highlighted in its ‘Financial resilience in the water sector: a discussion paper’. The paper indicates that swaps have been used to profile cashflows, for example, reduce short-term effective interest costs at the expense of highly likely future cash outflows.

Ofwat accepts that *“swaps have been used by [only] a small number of companies with already weak levels of financial resilience to alter the profile of cash interest payments”*<sup>22</sup>. The March 2024 CoD report explained that the data collection process for the KPMG Tool reaffirmed it is rare for swaps to be used in this way and where they are, the cash profiling component had been removed. This should have addressed Ofwat’s concerns about cash profiling.

In any event, it is not appropriate to conflate a small number of risky swaps with all other swaps.

The paper also indicates that the use of swaps in general may introduce additional risk for companies. For example, counterparties may require swap contracts to include (a) accretion paydowns; and (b) break clauses to limit their credit exposure.

<sup>19</sup> CEPA (2016), Ofwat and CAA - Alternative approaches to setting the cost of debt for PR19 and H7, p. 197.

<sup>20</sup> U UW (2021), Full year results investor presentation 2021, p. 18.

<sup>21</sup> Based on the instrument names in Table 4B, it is possible to pair RPI receive legs to CPI pay legs.

<sup>22</sup> Ofwat (2021), Financial resilience in the water sector: a discussion paper, p. 16.

On (a), accretion paydowns on inflation swaps are not dissimilar to repayments on amortising index linked debt. A significant proportion of the index linked debt in the sector has been raised in the form of amortising loans from the EIB.

In the swap case, the company is required to pay down the entire balance of accretion that has accumulated since the last paydown date. In the loan case, the company is required to repay a proportion of the initial size as well the accretion that has accumulated on that proportion since issuance. In both cases, this ‘amortising’ profile results in lower coupon rates for companies compared to a bullet profile as the ‘amortising’ profile is less risky for counterparties.

Further, the EIB has required considerably more frequent cash outflows to be made than swap counterparties. The EIB amortising index linked debt in the sector requires repayments to be made every 6m compared to the 5Y accretion paydowns that Ofwat cites for inflation swaps.

This implies the first point is not a material differentiator between swaps and other debt.

On (b), the data collection process for the KPMG Tool indicated that there were not many swaps with mandatory break clauses in the sector.

## 7.2.2. Ofwat’s policy on swaps in previous price reviews

Ofwat asserts it has always excluded swaps in setting the cost of embedded debt in previous price reviews. This maintains a consistent approach which improves the predictability of the regime.

Ofwat’s approach to the cost of embedded debt over PR04-PR19 is set out in the table below.

**Table 1: Ofwat’s approach to the cost of embedded debt over PR04-PR19**

Price review	Ofwat’s approach to the cost of embedded debt
PR04	Risk free rate <i>plus</i> a debt premium based on (1) current and historical spreads on traded water company debt; and (2) current and historical spreads on A and BBB rated bonds
PR09	Actual cost based on direct observations from companies’ existing debt portfolios
PR14	10Y fixed average of iBoxx A/BBB index <i>less</i> an outperformance wedge (based on yield at issue for water company bonds vs yield on the index at the time)
PR19	Primarily using benchmark index approach: 15Y fixed average of iBoxx A/BBB index <i>less</i> an outperformance wedge (based on yield at issue for 10Y+ fixed rate water company bonds vs yield on the index at the time)  Cross-checked using balance sheet approach: median cost of embedded debt across WaSCs and large WoCs, excluding swaps and non-standard debt instruments (such as junior debt)

Source: KPMG analysis and data from Ofwat PR04, PR09, PR14 and PR19 FDs

It may be misleading for Ofwat to characterise its approach to setting the cost of embedded debt as never having relied on swaps. Ofwat’s approach has varied over time and the balance sheet approach was first used at PR19 (albeit as a cross-check). In previous price reviews, company balance sheets were not the focus and therefore swaps were not explicitly considered.

PR19 was the first time Ofwat gave a clear signal that swaps would be excluded from the assessment of embedded debt. However, Ofwat’s exclusion of swaps at PR19 was ultimately overturned by the CMA FD which companies might have expected to be the starting point for PR24.

Even if companies overlooked the CMA FD, Ofwat’s signal in PR19 has not given companies sufficient time to change their use of swaps. By PR19, companies had already raised a significant volume of swaps which typically have long tenors and cannot be restructured without significant cost.

In effect, Ofwat has determined ex-post that swaps would not be issued by the notional company. This is not appropriate and could, counter to Ofwat’s view, undermine the predictability of the regime.

Further, it is difficult to reconcile Ofwat's decision to exclude swaps with its long history of recognising the importance of swaps. Ofwat has consistently recognised swaps as a valid means of hedging inflation risk in previous price reviews and more recently for hedging interest rate and currency risk:

- Ofwat/Ofgem at PR09: *"The same effect can be produced through adopting financial swaps that convert the company's liability to pay from nominal interest to real interest (with the inflation added to the principal sum borrowed) or by manufacturing synthetic index-linked debt instruments with the help of financial intermediaries"*<sup>23</sup>.
- Ofwat at PR14: *"In setting price limits for the future, we could consider a greater proportion of index-linked debt. This may reflect an expectation that greater amounts of index-linked debt might be raised in the future. Or it may reflect the ability of the companies to swap floating or fixed rate liabilities to mimic index-linked liabilities using swaps"*<sup>24</sup>.
- Ofwat at PR14: *"...companies will be able to issue index-linked debt either directly or through swap arrangements...If these companies are able to issue more index-linked debt, consumers will not be disadvantaged"*<sup>25</sup>.
- CEPA for Ofwat/CAA at PR19: *"The primary use of derivatives has been to convert fixed rate sterling debt into Index linked debt"*<sup>26</sup>.
- CEPA for Ofwat/CAA at PR19: *"Issuance of a nominal bond combined with an inflation swap will provide the same cash outcome at the end of the term as issuance of an inflation linked bond of the same term"*<sup>27</sup>.
- Ofwat at PR24: *"Swaps can form part of a considered approach to treasury risk management, for example, where linked to underlying instruments and used to hedge interest rate, inflation or exchange rate risks"*<sup>28</sup>.

Companies may have interpreted these statements as support for using swaps. As such, Ofwat's exclusion of swaps at PR24 could be seen as extracting the realised benefits of swaps ex-post.

Separately, Ofwat comments that other regulators have consistently excluded swaps from their assessment of sector costs. Ofgem in GD&T2 and ED2 focused on sector costs excluding swaps to calibrate the length of its trailing average, but uses sector costs including swaps as a broad cross-check<sup>29</sup>. Ofgem notes in both price reviews that its chosen trailing average length not only covers but has headroom against this cross-check in a number of scenarios including the base case<sup>30</sup>.

### 7.2.3. Counterfactual

Ofwat's exclusion of swaps from company balance sheets implies a retrospective change to treasury policies. This is because it assumes that in the counterfactual where companies had not entered into swaps, they would have issued the same conventional debt without change.

In practice, it is likely that companies would have adapted their approach to conventional debt issuance to still achieve their risk management objectives in the counterfactual. However, it is not possible to know with certainty exactly what companies would have done in the counterfactual.

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<sup>23</sup> Ofwat and Ofgem (2006), Financing Networks: A Discussion Paper, para. 146.

<sup>24</sup> Ofwat (2011), Financeability and financing the asset base – a discussion paper, paras. 65-66.

<sup>25</sup> Ofwat (2009), Future water and sewerage charges 2010-15: Final determinations, p. 140.

<sup>26</sup> CEPA (2016), Ofwat and CAA - Alternative approaches to setting the cost of debt for PR19 and H7, p. 199.

<sup>27</sup> Ibid., p. 189.

<sup>28</sup> Ofwat (2021), Financial resilience in the water sector: a discussion paper, p. 15.

<sup>29</sup> Ofgem (2022), RIIO-ED2 Final Determination – Finance Annex, para. 2.69.

<sup>30</sup> Ibid., para. 2.100; Ofgem (2021), RIIO-2 Final Determinations – Finance Annex (REVISED), para. 2.40.

Plausible counterfactuals for common uses of swaps in the sector are set out in the table below. Ofwat's counterfactuals for the same are also presented.

**Table 2: Factual and counterfactual scenarios for swaps**

Swap type	Factual with swaps	Plausible counterfactual without swaps	Ofwat counterfactual without swaps
Interest rate	Benchmark floating rate bond with 10Y reducing balance floating-to-fixed swap	Sub-benchmark fixed rate bond issuance every year for 10Y	Benchmark floating rate bond
Inflation	Fixed rate bond with fixed-to-index linked swap	Index linked bond	Fixed rate bond
Currency	Foreign currency bond with sterling swap	Sterling bond	Sterling bond <sup>1</sup>

Notes: (1) This sterling bond is at the same cost as the factual scenario (foreign currency bond with sterling swap) as Ofwat includes currency swaps  
Source: KPMG analysis

Ofwat's counterfactual for companies is likely to misstate the actual cost they could have achieved at the time assuming the same risk management objectives. Instead, Ofwat should reflect a plausible counterfactual for companies.

This counterfactual is likely to be challenging to price and in any case be more costly than the factual. If the counterfactual was less costly, companies would likely have executed this instead of the factual given they have been incentivised to meet their risk management objectives at minimum cost.

This suggests it may be more straightforward for Ofwat to include swaps.

Ofwat's reconciliation suggests that the 'all-in' cost could increase in nominal terms by 11bps if interest rate and inflation swaps are included.

## 8. Data differences between Ofwat's balance sheet model and the KPMG Tool

Ofwat's DD model uses 2023 debt data based on company 2023 APRs. The KPMG Tool uses 2023 debt data based on data templates that were populated by companies specifically for the Tool.

Ofwat's reconciliation suggests that data differences between the 2023 APRs and the data templates have a material impact on the 'all-in' cost for ANH, WSH, SWL and WSX. Ofwat does not go on to comment on the data differences in the DD.

The March 2024 CoD report included an appendix on the process for collecting and checking the data templates. This noted that companies provided confirmation that their data template was accurate. These confirmations were provided in view of the differences between common fields in their data template and their 2023 APRs / Business Plan data tables.

Notwithstanding the above, the data differences for SWL merited investigation as the impact of these are larger than for any other company. Ofwat's reconciliation suggests that the 'all-in' cost for SWL in the Ofwat DD model is 79bps lower than in the KPMG Tool in nominal terms due to data differences.

It was possible to broadly replicate the 79bps. However, it is not clear whether this is based on same calculation as Ofwat because its reconciliation workings have not been provided.

For SWL, there are two data differences between Table 4B of its 2023 APR and its data template which both relate to floating rate debt. In particular, these data differences relate to the SONIA rate on which coupon payments for its floating rate debt are based.

### Reference benchmark

SWL populated the 'Reference benchmark' column of Table 4B with "SONIA". Ofwat has assumed this means that floating rate coupons are linked to overnight SONIA.

RAG 4.11 does not specify that companies should provide the SONIA compounded rate to which floating rate coupons are linked so it is not clear why Ofwat has made this assumption: "*Name of floating rate benchmark (e.g. 3 month SONIA). Only needed for floating rate debt or facilities priced using a benchmark*"<sup>31</sup>.

The data appendix in the March 2024 report explained that an important check for the data templates was ensuring that reference benchmarks were aligned with coupon frequency.

SONIA itself is strictly an overnight rate. However, the reference benchmark should in practice reflect the compounding period implied by the coupon frequency. For context, it is expected that for a floating rate instrument with coupon payments every 3 months, the coupon payments are linked to SONIA compounded over 3-months in arrears i.e. 3m SONIA.

As a result of this check, the reference benchmarks in the SWL data template were updated to 3-12m SONIA. The SONIA term structure was upwards sloping in October 2023<sup>32</sup>. This meant the use of 3-12m SONIA instead of overnight SONIA led to a higher 'all-in' cost in the KPMG Tool.

### Reference benchmark rate

SWL populated the 'Reference benchmark rate' column of Table 4B with 2.189%. SWL indicated to KPMG that this reflects an FY23 average of overnight SONIA with a 5 business day lookback.

Ofwat uses this APR rate as a starting point to calculate the reference benchmark rate it uses for floating rate coupons over AMP8. For SWL, Ofwat has assumed this APR rate is equal to the spot rate on overnight SONIA as at 31 March 2023, which in practice was 4.18%.

<sup>31</sup> Ofwat (2023), RAG 4.11 – Guideline for the table definitions in the annual performance report, Version 1.1, p. 53.

<sup>32</sup> Ofwat's reconciliation is based on market data until October 2023.

RAG 4.11 does not specify what exactly companies should provide for the APR rate so it is not clear why Ofwat has made this assumption: “*Nominal interest rate of reference benchmark (e.g. 1.55%). Only needed for floating rate debt or facilities priced using a benchmark*”<sup>33</sup>.

SWL’s APR FYA rate (2.189%) is lower than the FYE spot rate (4.18%) because spot rates on overnight SONIA (and all other SONIA rates) increased significantly over the course of FY23<sup>34</sup>.

The KPMG Tool does not use the APR rate and instead takes the spot rate as at 31 March 2023 directly from data providers. This led to a higher ‘all-in’ cost in the KPMG Tool.

In conclusion, the KPMG dataset could represent a useful input to calibration of the cost of embedded debt. This is because the differences between the KPMG dataset and 2023 APRs are valid and relevant for modelling of embedded debt costs.

Ofwat has signalled it will use 2024 APRs at FD. For common instruments in the KPMG dataset and 2024 APRs, Ofwat should evaluate whether it is necessary to make any amendments to the 2024 APRs to take account of differences between the two data sources.

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<sup>33</sup> Ofwat (2023), RAG 4.11 – Guideline for the table definitions in the annual performance report, Version 1.1, p. 53.

<sup>34</sup> Ultimately what matters is that the SONIA compounded rates, to which floating rate coupons are linked, increase over FY23 given the first data difference. This explanation focuses on the overnight SONIA rate for simplicity.

## 9. The KPMG Tool as an input to refine Ofwat's balance sheet model

This section considers Ofwat's comments on the KPMG Tool and potential implications.

Ofwat comments that the KPMG Tool is complex and this complexity does not lead to materially different estimates of the 'all-in' cost relative to its DD model at the company level.

Ofwat considers that the only area of noticeable difference is on refinancing. Ofwat comments that its DD model assumes that debt maturing in AMP8 does so mid-year whereas the KPMG Tool uses the exact maturity date. Ofwat comments that it is not clear that the KPMG Tool has taken account of the specific timing of issuance for the new debt that refinances the maturing debt.

Ofwat considers that adopting the complexity of the KPMG Tool will increase the data reporting and assurance burden on companies.

### 9.1. Materiality of differences between the Ofwat DD model and KPMG Tool

This section considers Ofwat's comments on the materiality of the differences between its DD model and the KPMG Tool and the implications of these differences.

First, the KPMG Tool was designed to address the issues in the Ofwat FM model outlined in the September 2023 CoD note and reflect how the cost on debt instruments are modelled in practice. The aim of this design is for the KPMG Tool to produce a precise estimate of the 'all-in' cost.

Ofwat is clear that the aim for its DD model is different: "*We aim to balance the accuracy of the model ... against undue levels of complexity in setting the cost of embedded debt. This will help us to focus on material issues and limit the regulatory burden on setting the allowed return on debt...*"<sup>35</sup>.

A high-level approach as applied in the DD model increases scope for miscalibration of the allowance.

Second, the materiality of each issue in Ofwat's FM model could not have been known ex-ante. The KPMG Tool was developed in part to determine the materiality of these issues. In this context, the KPMG Tool is a useful input into Ofwat's calibration of the cost of embedded debt allowance.

Moreover, Ofwat emphasises that it developed its DD model by focusing on material issues. A precise estimate of the 'all-in' cost is required to determine materiality.

Third, Ofwat's reconciliation shows there are material gaps between the 'all-in' cost in the Ofwat DD model and the KPMG Tool at the company level<sup>36</sup>.

For example, in the case of SRN, its 'all-in' cost in the Ofwat DD model is 56bps lower than in the KPMG Tool in nominal terms after adjusting for what Ofwat considers are policy differences.

Fourth, Ofwat has sought to narrow the gap between its DD/FD model and the KPMG Tool at the company level through the changes it has signalled / is consulting on in the DD. This is because these changes are linked to material bridging items in its reconciliation.

For some companies, these changes can materially bridge the gap. In the case of SRN, 48bps of the 56bps mentioned above could be closed based on these changes. For other companies, even if Ofwat makes these changes, there will remain material gaps. This is the case for WSH and SWL.

Fifth, bridging items in Ofwat's reconciliation that are less material under current market conditions could be material under different market conditions. This reinforces the need for the DD/FD model to focus on producing a precise estimate.

<sup>35</sup> Ofwat (2024), PR24 Draft Determination, Aligning risk and return – Allowed return appendix, p. 127.

<sup>36</sup> Ofwat's reconciliation is based on the February 2024 KPMG Tool rather than the March 2024 KPMG Tool.



Sixth, Ofwat's view of materiality appears to be inconsistent across categories of debt. For example, Ofwat includes 'immaterial' finance leases in its 'all-in' cost on that basis that it considers "...it more appropriate to include all pure debt instruments that water companies report, rather than creating criteria to identify immaterial instruments"<sup>37</sup>. In contrast, Ofwat justifies partially on the basis of materiality *inter alia* the exclusion of intercompany loans and swaps in its 'all-in' cost.

## 9.2. Complexity of the KPMG Tool

Ofwat has overstated the complexity of the KPMG Tool:

- Ofwat suggests the KPMG Tool produces daily estimates of the cost of embedded debt. This is not the case. The KPMG Tool produces annual estimates of the cost of embedded debt and this was outlined in the March 2024 CoD report.
- Ofwat suggests the KPMG Tool attempts to model bespoke features of company debt instruments. In practice, the KPMG Tool models each category of instrument in line with its characteristics (e.g. bond as bonds, swaps and swaps). There are only two cases where bespoke adjustments were made in the KPMG Tool which were highlighted in the March 2024 CoD report.

In contrast, Ofwat's model may be oversimplified in that it applies a one size fits all approach to its modelling of instruments (e.g. swaps as bonds) and does not reflect how instruments are modelled in practice. Ofwat's model has also not been built in line with modelling best practice which reduces transparency and increases likelihood of error.

There were two further refinements which could have been made to the KPMG Tool to increase its accuracy and would have resulted in a higher 'all-in' cost. These were discussed in the March 2024 report but Ofwat has not engaged with these points.

First, the WACC is an annual coupon. This means that semi-annual or quarterly coupon rates should in principle be converted to equivalent annualised rates and then these annualised rates form the basis of the allowance for embedded debt. For example, a 4% semi-annual coupon is economically equivalent to a 4.04% annual coupon and this 4.04% should form the basis of the allowance. This conversion has not been implemented in the KPMG Tool<sup>38</sup>.

Second, a number of companies have in the past paid banks to put in place a 'gilt lock' to fix the gilt component of the coupon in the days leading up to a bond's issuance. The benefit of the gilt lock is that it reduces the pricing uncertainty of the coupon. The KPMG Tool included the benefit of the gilt lock (reflected in the coupon rate) but not the associated fees paid to the bank<sup>39</sup>.

In addition, Ofwat has not included scenario functionality in its DD model which means the allowance will underfund the 'all-in' cost as soon as rates increase above current levels. This is different to Ofgem which undertook scenario analysis of plausible macroeconomic outcomes to inform the calibration of its allowance in RIIO-2<sup>40</sup>. The March 2024 CoD report showed that the 'all-in' cost would be 17-25bps higher in a downside scenario where interest rates increase by 2%. For context, iBoxx A/BBB 10Y+ rates increased by 3.26% between the first year of AMP7 and March 2024.

Separately, the March 2024 CoD report materially reduces complexity for setting the cost of embedded debt in some areas relative to Ofwat's DD approach. For example, it does not require the use of the 'actual-notional' cost or the benchmark index approach.

## 9.3. Timing of refinancing

Ofwat comments that it is not clear the KPMG Tool has taken account of the specific timing of issuance for new debt that refinances maturing debt.

<sup>37</sup> Ofwat (2024), PR24 Draft Determination, Ofwat comments on cost of debt report submitted by Water UK, p. 12.

<sup>38</sup> KPMG (2024), Estimating the Cost of Embedded Debt and Share of New Debt for PR24, p. 61.

<sup>39</sup> KPMG (2024), Estimating the Cost of Embedded Debt and Share of New Debt for PR24: Annex to Appendix 4, p. 7.

<sup>40</sup> Ofgem (2022), RIIO-ED2 Final Determination – Finance Annex, para. 2.84.

The KPMG Tool models the maturity of embedded debt instruments based on their actual maturity dates as this is known. In contrast, the issue date for new debt instruments that replace maturing debt is unknown and thus an assumption has to be made. The March 2024 CoD explained that new debt is assumed to be issued in the middle of the year. Whilst this assumed issue date for new debt may not exactly match the actual maturity dates of embedded debt, it appears to be a reasonable assumption.

The Ofwat DD model instead redefines the actual contracted maturity dates of embedded debt instruments to be in the middle of the year. This does not appear to be a superior approach.

## 9.4. Reporting requirements

Ofwat may overstate the implications of the KPMG Tool on reporting requirements for companies.

The dataset for the KPMG Tool does contain additional information relative to the APRs, mainly for swaps and finance leases. This additional information was required to (1) facilitate accurate modelling of the cost of debt on an annual basis across AMP8; and (2) capture all relevant costs. The need for additional data is also reflected in the Ofwat FM/DD model, which adopted placeholder modelling assumptions where data required to project debt costs was not available in APRs.

Some of this additional data reflects that the APRs are a set of financial statements at a point in time. The APRs were not designed for projecting the cost of embedded debt on a forward-looking basis. For example, the APRs contains the in-year rate but not the annual coupon rate profile for instruments. In practice, there are instruments in the sector with coupon rates that vary over time (e.g. this is common for finance leases) and specifically over AMP8.

This additional data in the KPMG dataset does not need to be provided as part of annual APRs. It can be provided just once every five years in Business Plan data tables for the purposes of setting the cost of embedded debt at each price review.

Separately, there are issues with using the APRs as a basis to estimate the cost of embedded debt due to the lack of specificity in RAG 4.11<sup>41</sup>. For example:

- Companies have adopted different methodologies in the APR for accounting for accretion in the principal balances of index linked debt. This is because RAG 4.11 does not prescribe a specific methodology for accretion accounting. In consequence, differences in accretion accounting across company APRs could undermine the comparability of debt costs across the sector.
- Companies have not provided the SONIA compounded rate for floating rate debt in the APR which is what coupons are linked to in practice. This is because RAG 4.11 does not specify that the compounded rate should be given. This is discussed further section 8.
- RAG 4.11 does not specify exactly what rates companies should provide for their instruments in the APR. In consequence, companies may have adopted different approaches to populating the rate fields in the APR (e.g. coupon vs effective interest rate). Ofwat acknowledges this by noting that it is uncertain about what companies have provided in the APR: *“Companies may have already adjusted rates to take the difference in par value into account...”*<sup>42</sup>.
- Ofwat has made a number of manual amendments to company 2023 APRs in its DD model. This is because RAG 4.11 does not e.g. require companies to report currency swaps together with the underlying foreign debt in a single line or report tap issuances in separate lines. There is scope for error when making manual amendments to company data.

<sup>41</sup> The basis of 2023 APRs is RAG 4.11 and 2024 APRs is RAG 4.12. As the DD balance sheet model uses 2023 APRs, only RAG 4.11 has been considered.

<sup>42</sup> Ofwat (2024), PR24 Draft Determination, Ofwat comments on cost of debt report submitted by Water UK, p. 13.

## 10. The role of the ‘actual-notional’ cost in Ofwat’s balance sheet approach

Ofwat assigns equal weight to the ‘all-in’ cost and ‘actual-notional’ cost to form its balance sheet estimate. This section considers the usefulness of placing weight on the ‘actual-notional’ cost.

Ofwat’s DD model estimates an ‘all-in’ cost of 4.52% and an ‘actual-notional’ cost of 4.50% in nominal terms. The average of these costs results in a balance sheet estimate of 4.51%.

Ofwat considers “...the ‘Actual notional’ cost to be an important element of our [Ofwat’s] benchmark efficient cost of embedded debt. Rather than aiming to identify errors, we include it because it aligns with our long-standing principle that companies are responsible for their own financing choices”<sup>43</sup>.

Companies cannot change their past decisions (embedded debt), only their future decisions (new debt) which implies there is a limited efficiency incentive of including the ‘actual-notional’ cost. Instead, its inclusion could mean that companies are underfunded for their actual cost.

There are two further issues with the ‘actual-notional’ cost which were explained in the March 2024 CoD report but Ofwat has not engaged with in the DD.

### The ‘actual-notional’ cost does not adjust solely for debt mix

The ‘actual-notional’ cost does not in practice solely adjust a company’s portfolio for the notional debt mix. It also adjusts the weighted-average timing of issuance of a company’s portfolio.

For example, assume a company’s portfolio comprises two equally sized bonds. One index linked which was issued when rates were high and one fixed rate which was issued when rates were low. The ‘actual-notional’ cost assumes that 67% of the portfolio was raised when rates were low whereas in reality this was 50%<sup>44</sup>. In this example, the ‘actual-notional’ cost would understate the actual cost.

Instead, the ‘actual-notional’ cost should be calculated such that the cost of the additional 17% fixed rate debt is based on the same timing of issuance as the index linked bond.

The implication is that Ofwat’s ‘actual-notional’ cost is over simplified and does not fulfil the purpose for which it was designed. The more robust version of the ‘actual-notional’ cost above would correct the distortion related to timing of issuance but is likely to be challenging to implement in practice.

### The ‘actual-notional’ cost can give a misleading view of the actual cost

Ofwat’s ‘actual-notional’ cost (and the more robust version above) is synthetically constructed and can give a misleading view of the sector’s actual cost.

First, whilst Ofwat’s DD model implies that the ‘all-in’ cost and ‘actual-notional’ cost are aligned at the sector-level, they do vary materially at the company-level. This is illustrated in Figure 4. For example, in the case of U UW, its ‘all-in’ cost is 67bps higher than its ‘actual-notional’ cost in nominal terms.

Hence, it appears to be a coincidence that the ‘actual-notional’ cost only has a small impact at the sector-level in the DD (1bp). This could change at FD when Ofwat updates its model for the latest debt data, market data and new debt for RCV growth.

Second, as Ofwat’s ‘all-in’ cost and ‘actual-notional’ cost are both variants of a notional cost, they provide limited insight about the sector’s actual cost.

Third, the KPMG ‘all-in’ cost reflects the actual cost for the sector excluding cash profiling. The March 2024 KPMG Tool indicates that at the sector-level, the ‘all-in’ cost is 34bps higher than the ‘actual-notional’ cost in nominal terms. Where swaps are excluded, this difference increases to 38bps.

At the company-level, the differences can be even more material as shown in Figure 5 (includes swaps). For example, in the case of WSH, its ‘all-in’ cost is 71bps higher than its ‘actual-notional’ cost. Material differences at the company-level are observed in both the KPMG Tool and Ofwat DD model.

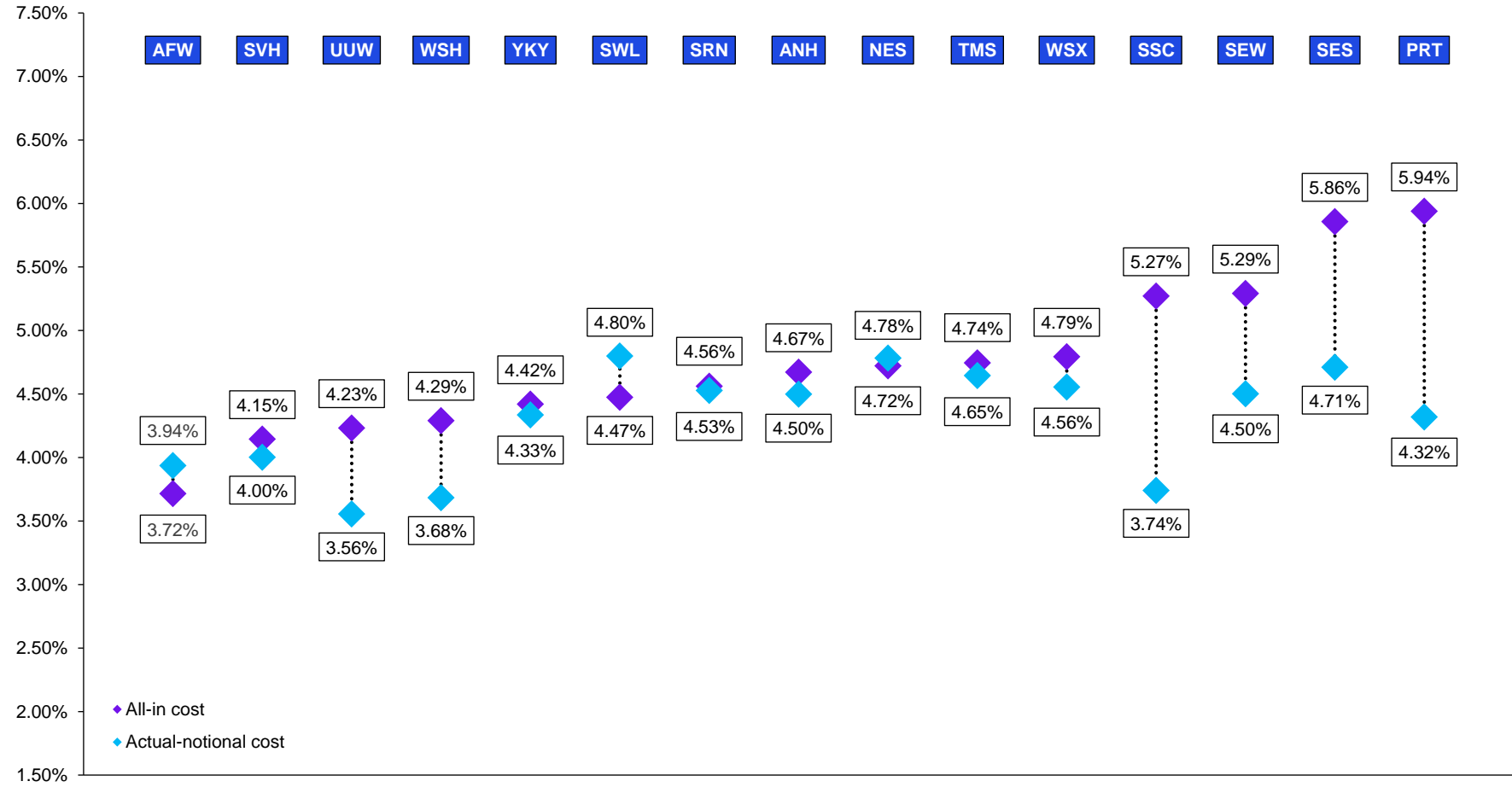
<sup>43</sup> Ibid., p. 8.

<sup>44</sup> The notional debt mix comprises 67% fixed rate debt and 33% index linked debt.

In conclusion, this suggests that the 'actual-notional' cost should not be used as an input into the balance sheet estimate. Its inclusion could result in the average company being underfunded for its actual cost. This undermines the principle underpinning the sector average approach.

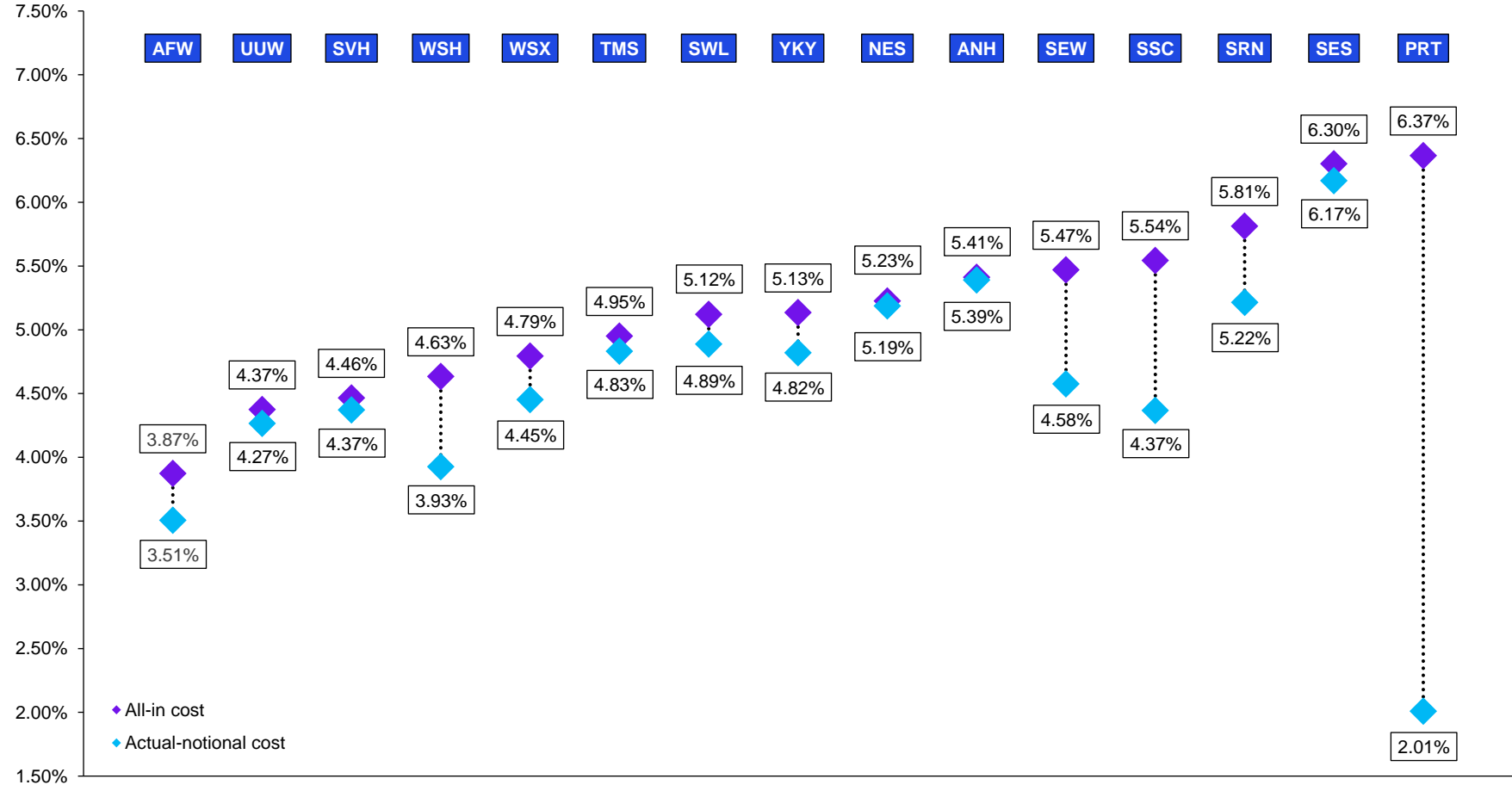
As such, the March 2024 CoD report attached no weight to the 'actual-notional' cost in deriving the cost of embedded debt.

Figure 4: Comparison of AMP8 'all-in' cost and 'actual-notional' cost across the sector based on Ofwat DD model (nominal)



Notes: Based on 2023 debt data from APRs and market data up until March 2024  
 Source: KPMG analysis

Figure 5: Comparison of AMP8 'all-in' cost and 'actual-notional' cost across the sector based on March 2024 KPMG Tool (nominal)



Notes: Based on 2023 debt data from KPMG dataset and market data up until October 2023  
 Source: KPMG analysis

## 11. Potential cross-checks to Ofwat's balance sheet approach

Ofwat adopts the benchmark index approach as a cross-check for its balance sheet approach. This section considers whether this position is appropriate.

First, the principle behind the balance sheet approach, like other sector average approaches, is that the sector average cost represents the proxy for the efficient cost. The use of cross-checks, like the benchmark index approach, that could result in the allowance being set at different level to the balance sheet estimate contravenes this principle of a sector average approach.

Ofwat recognised the same at the PR19 appeal: *"We [Ofwat] and the CMA recognise the value of the iBoxx A and BBB indices in providing independent data points to inform an efficient allowance. There is however substantially less value in an independent benchmark that systematically overcompensates the majority of the sector"*<sup>45</sup>. To this end, it is not clear why Ofwat considers that over- or under- compensation based on an independent benchmark is appropriate at PR24.

Ofgem in RIIO-2 also used a sector average approach to set the cost of debt allowance. However, unlike Ofwat, it did not cross-check the sector average estimate using alternative approaches which reinforces that this may not be appropriate.

Second, as discussed above, Ofwat's specification of the balance sheet approach already 'double notionalises' the sector's actual cost. The benchmark index approach is just another way of producing a notional cost. In this context, it is not clear whether the benchmark index approach represents a useful cross-check to Ofwat's balance sheet approach.

Third, Ofwat seeks to use the benchmark index range as a cap rather than a cross-check for the balance sheet estimate. This is asymmetric as it implies Ofwat would not provide additional allowance if the sector outperformed the benchmark index range. This asymmetry (1) undermines incentives for the sector to issue efficiently as any outperformance against the benchmark would be clawed back ex-post; and (2) means that companies may not be able to recover their actual costs on average.

Fourth, it is challenging to calibrate a benchmark trailing average that precisely takes account of macroeconomic volatility and the sector's timing, tenor and mix of debt issuance over time. This could give rise to many variants of the trailing average (each with pros and cons) which collectively point to a wide range and are all less precise than the balance sheet estimate.

This implies that benchmark trailing averages cannot provide robust insights into efficiency and so it is more robust to rely solely on the balance sheet estimate which can be directly observed.

The CMA at PR19 asserted that, at a minimum, differences between the balance sheet estimate and benchmark index estimate should be carefully investigated: *"As an alternative to the actual cost approach used as the basis of our cost of embedded debt allowance in this determination, we considered applying a benchmark approach with an associated cross-check against evidence of actual costs. However, as discussed, in order to balance our duties, we would have to carefully consider if there were legitimate reasons why any allowance would reasonably be expected to deviate from that suggested by a bond benchmark"*<sup>46</sup>. This suggests there is a high hurdle to move away from using the balance sheet estimate as the proxy for the efficient cost.

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<sup>45</sup> Ofwat (2020), Reference of the PR19 final determinations: Risk and return – response to CMA provisional findings, para. 4.12.

<sup>46</sup> CMA (2021), PR19 Final Determination, para. 9.716.

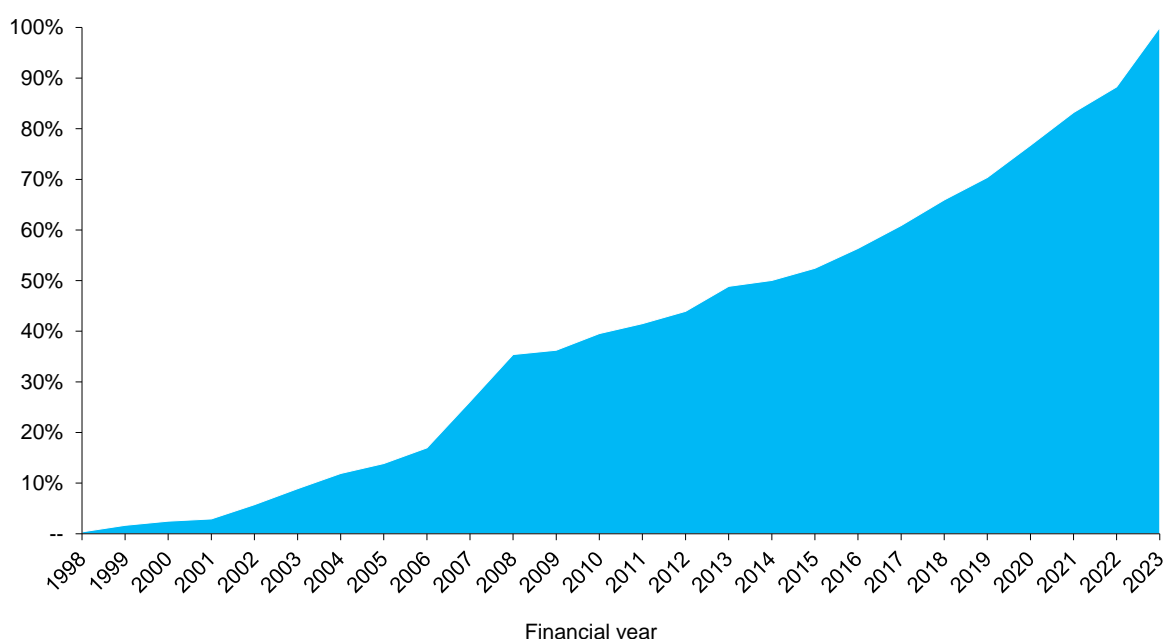
Fifth, Ofwat considers that higher debt costs that have resulted from management choices to raise gearing above notional levels should not be reflected in the benchmark trailing average. However, this view is oversimplified and asymmetric. Some companies have increased gearing when rates were cheap which has contributed to lower allowances. This is the case for AFW who has the lowest cost of debt in the sector based on the 'all-in' cost in both the KPMG Tool and Ofwat DD model.

Sixth, Ofwat's variants of the benchmark trailing average appear oversimplified which limits their usefulness for calibrating the allowance.

For example, Ofwat has developed a variant based on the sector raising debt in line with RCV growth at prevailing notional structures. However, it is not clear whether Ofwat has assumed that (1) companies had 0% gearing after privatisation and geared up to notional levels; or (2) companies were notionally geared after privatisation and the associated debt was refinanced over time.

Ofwat also considers 15Y trailing averages which begin in FY 2011. However, the chart below shows that 40% of debt and 47% of bonds in the sector's 2023 debt portfolio was raised by FYE 2010<sup>47</sup>.

**Figure 6: Build-up of the sector's 2023 debt portfolio**



Source: KPMG analysis

In this context, a trailing average of the iBoxx A/BBB index based on a length of e.g. 25Y would imply a simple average of 4.92% and a uniform collapsing average of 4.77%<sup>48</sup>. These averages are both significantly higher than Ofwat's DD balance sheet estimate of 4.51%.

In conclusion, this suggests that no weight should be attached to the benchmark index cross-check. This position was reflected in the March 2024 CoD report.

<sup>47</sup> This chart is based on the KPMG dataset for 2023 debt data.

<sup>48</sup> Based on iBoxx A/BBB 10Y+ using the DD data cut-off date of 31 March 2024.



## 12. Appendices

This section contains the appendices to the report.

### 12.1. Appendix A: Additional tables

**Table 3: UUW's treasury policy on interest rate risk over 2008-2024**

Period	UUW's treasury policy on interest rate risk
2008-2011	<p><i>"The group's policy is to structure debt in a way that best matches the cashflows generated by its underlying assets... Where long-term debt is raised in a fixed rate form, the group will swap to floating rate, at inception over the life of the liability, through the use of interest rate swaps..."</i></p> <p><i>The group's revenues are determined based upon the real cost of capital fixed by the regulator for each five-year regulatory pricing period. The group fixes a material proportion of the floating cost of debt for the duration of the five-year regulatory pricing period, using a second layer of interest rate swaps to match the group's revenue stream"</i></p>
2012-2013	<p><i>"The group's policy is to structure debt in a way that best matches its underlying assets and cash flows..."</i></p> <p><i>Where conventional long-term debt is raised in a fixed-rate form, to manage exposure to long-term interest rates, the debt is generally swapped at inception to create a floating rate liability for the term of the liability through the use of interest rate swaps..."</i></p> <p><i>To manage the exposure to medium-term interest rates, the group has fixed interest costs for a substantial proportion of the group's net debt for the duration of the current five-year regulatory pricing period. During the year, the group revised its interest risk management strategy to now extend the fixing of interest rates out to a 10-year maturity on a reducing balance basis, seeking to lock in a 10-year rolling average interest rate on the group's nominal liabilities"</i></p>
2014-2017	<p><i>"The group's policy is to structure debt in a way that best matches its underlying assets and cash flows..."</i></p> <p><i>Where conventional long-term debt is raised in a fixed-rate form, to manage exposure to long-term interest rates, the debt is generally swapped at inception to create a floating rate liability for the term of the liability through the use of interest rate swaps..."</i></p> <p><i>To manage the exposure to medium-term interest rates, the group fixes underlying interest rates on nominal debt out to ten years in advance on a reducing balance basis. This is supplemented by managing residual exposure to interest rates within the relevant regulatory price control period by fixing substantively all residual floating underlying interest rates on projected nominal debt across the immediately forthcoming regulatory period at around the time of the price control determination"</i></p>
2018-2024	<p><i>"In the next regulatory period, Ofwat intends to continue using materially the same methodology in setting a fixed real cost of debt in relation to embedded debt (currently assumed to be 70 per cent of net debt), but will introduce a debt indexation mechanism in relation to new debt (currently assumed to be 30 per cent of net debt).</i></p> <p><i>The group has therefore reviewed its interest rate hedging policy, retaining most elements of the existing policy as Ofwat's embedded debt methodology is materially unchanged..."</i></p> <p><i>Where conventional long-term debt is raised in a fixed-rate form, to manage exposure to long-term interest rates, the debt is generally swapped at inception to create a floating rate liability for the term of the liability through the use of interest rate swaps..."</i></p> <p><i>To manage the exposure to medium-term interest rates, the group fixes underlying interest rates on nominal debt out to 10 years in advance on a reducing balance basis, mirroring Ofwat's expected split of 70 per cent embedded and 30 per cent new debt. However, the group will no longer substantively fix the residual floating underlying interest rates on projected nominal net debt at the start of each regulatory period, leaving this element floating until it is fixed via the above 10-year reducing balance basis, which should more closely mirror Ofwat's new debt indexation mechanism"</i></p>

Notes: (1) Extracts are from the annual report in the first year of the period; (2) UUW has referred to the share of new debt for AMP7 as 20% since its 2020 annual report  
Source: KPMG analysis and data from UUW annual reports

**Table 4: Comparison of the notional company vs actual companies across the sector**

Criteria		Notional	WaSC										Large WoC		Small WoC		
			ANH	NES	U UW	SRN	SVH <sup>1</sup>	SWL	TMS	WSH	WSX	YKY	AFW	SEW	PRT	SES	SSC
Credit rating	Fitch	Baa1/BBB+	A- (Stable)	BBB+ (Stable)	BBB+ (Stable)	BBB (Negative)	BBB+ (Stable)	n/a	n/a	A (Stable)	BBB+ (Stable)	n/a	BBB+ (Stable)	n/a	n/a	n/a	n/a
	Moody's		A3 (Stable)	Baa1 (Stable)	A3 (Stable)	Baa3 (Stable)	Baa1 (Stable)		Baa1 (Stable)	A3 (Stable)	Baa1 (Stable)	Baa2 (Stable)	Baa1 (Stable)	Baa2 (Stable)	Baa2 (Stable)	Baa2 (Stable)	Baa2 (Stable)
	S&P		A- (Negative)	n/a	BBB+ (Stable)	BBB (Stable)	BBB+ (Stable)		BBB (Negative) <sup>2</sup>	A- (Negative)	n/a	A- (Negative)	BBB+ (Negative)	BBB (Negative)	n/a	n/a	BBB+ (Negative)
Gearing		60.0%	68.9%	70.2%	67.0%	71.6%	61.0%	68.3%	81.3%	61.1%	68.8%	68.6%	74.9%	77.8%	50.0%	79.1%	68.7%
Debt mix	Fixed rate	67.0%	28.4%	55.1%	31.0%	26.4%	68.3%	66.5%	35.9%	10.6%	55.2%	35.7%	13.4%	29.3%	8.4%	12.5%	20.2%
	Index linked	33.0%	60.5%	36.6%	44.8%	73.3%	28.0%	13.6%	54.6%	84.0%	30.8%	56.9%	86.6%	54.7%	90.5%	67.5%	72.4%
	Floating rate	0.0%	11.2%	8.3%	24.2%	0.2%	3.7%	20.0%	9.4%	5.4%	14.1%	7.4%	0.0%	16.0%	1.1%	20.0%	7.4%
Swaps <sup>3</sup>		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	No	No
Junior debt <sup>3</sup>		No	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No
Intercompany debt <sup>3</sup>		No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Yes	Yes	No
Wrapping fees <sup>3</sup>		No	Yes	No	No	Yes	No	No	No	Yes	No	No	No	No	No	Yes	Yes

Notes: (1) Credit ratings shown for SVH are those for SVE. HDD has only a rating from Fitch of BBB+ (Stable) and this aligns with that for SVE; (2) CreditWatch Negative; (3) Based on the KPMG dataset for 2023 debt data  
Source: KPMG analysis and data from 2024 APRs

## 12.2. Appendix B: Glossary

Table 5: Glossary of select terms

Term	Description
Accretion	Changes to the principal balance of an index linked debt instrument for movements in the inflation index to which the instrument is linked
Amortising	A repayment profile for debt instruments where the principal balance is repaid over the life of the instrument
APR	Annual Performance Report
Balance sheet approach	A form of sector average approach as adopted by Ofwat in the PR24 DD
Benchmark index adjustment	An adjustment applied by Ofwat to the benchmark bond index used to set the cost of new debt to reflect shorter tenor of water company issuance relative to the benchmark index
Benchmark index approach	An approach whereby the cost of embedded debt is set using a trailing average of a benchmark bond index such as the iBoxx A/BBB index
Balance sheet model	A model developed by Ofwat to estimate the cost of embedded debt at the company- and sector-level over AMP8
Bullet	A repayment profile for debt instruments where the principal balance is repaid at maturity of the instrument
ED2	Ofgem's price control for electricity distribution over 2024-2028
EIB	European Investment Bank
Embedded debt	Debt that has been issued in previous price control periods and will continue to be on company balance sheets in AMP8
GD&T2	Ofgem's price control for gas distribution and transmission over 2022-2026
iBoxx A/BBB index	A benchmark bond index that comprises fixed rate, non-financials, A/BBB rated, 10Y+ maturity bonds
Junior debt	Debt that ranks below other more senior forms of debt in terms of repayment priority
KPMG Tool	A tool developed by KPMG to estimate the cost of embedded debt and the share of new debt at the company- and sector-level over AMP8
NGN	Northern Gas Networks
Par value	The face value of a bond is referred to as its par value
Sector average approach	An approach whereby the cost of embedded debt is set using the sector average cost of embedded debt
SONIA	A common benchmark to which floating rate debt instruments are linked
WaSC	Water and Sewerage Company
WoC	Water only Company

Source: KPMG analysis

### 12.3. Appendix C: Important notice

This Report has been prepared by KPMG LLP ('KPMG', 'we' or 'our') for Water UK on the basis of an engagement contract dated 26 September 2023 and varied by an amendment and restatement agreement dated 16 August 2024 between Water UK and KPMG (together the "Engagement Contract"). Water UK commissioned the work to assist Water UK in its considerations regarding the Water Services Regulation Authority ("Ofwat")'s PR24 DD on the cost of embedded debt.

Water UK should note that our findings do not constitute recommendations as to whether or not Water UK should proceed with any particular course of action.

The findings expressed in this Report are (subject to the foregoing) those of KPMG and do not necessarily align with those of Water UK.

KPMG has not assisted Water UK in preparation of its separate response to the PR24 Draft Determination on cost of embedded debt to which this Report relates. For the avoidance of doubt, it is Water UK's sole responsibility to decide what should be included in their response or submission to Ofwat. KPMG has not made any decisions for Water UK or assumed any responsibility in respect of what Water UK decides, or has decided to, include in its response or submission.

This Report is for the benefit of Water UK only. This Report is not suitable to be relied on by any party wishing to acquire rights against KPMG (other than Water UK) for any purpose or in any context. Any party other than Water UK that obtains access to this Report or a copy and chooses to rely on this Report (or any part of it) does so at its own risk. To the fullest extent permitted by law, KPMG does not assume any responsibility or liability in respect of our work or this Report to any party other than Water UK.

The sector-wide market information presented in this Report reflects prevailing conditions as of the date of the Report, all of which are accordingly subject to change. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. Information sources and source limitations are set out in the KPMG March 2024 'Estimating the Cost of Embedded Debt and Share of New Debt for PR24' Report. We have satisfied ourselves, where possible, that the information presented in this Report is consistent with the information sources used, but we have not sought to establish the reliability or accuracy of the information sources by reference to other evidence. We relied upon and assumed without independent verification, the accuracy and completeness of information available from public and third-party sources. KPMG does not accept any responsibility for the underlying data.

The company-specific information in relation to water company debt is based on representations made to us by the management of each water company. We do not accept responsibility for such information which remains the responsibility of management. We relied upon and assumed without independent verification, the accuracy and completeness of the information. We have not sought to establish the reliability of the information by reference to other evidence. The company-specific information has been reviewed by the management of each water company and the factual accuracy of the information has been confirmed in writing.

Where our Report makes reference to 'KPMG Analysis' this indicates only that we have (where specified) undertaken certain analytical activities on the underlying data to arrive at the information presented. We do not accept responsibility for the underlying data.

Peer performance comparisons for entities named in this Report are solely based upon information from third-party and publicly available sources and management representations.

This engagement is not an assurance engagement conducted in accordance with any generally accepted assurance standards and consequently no assurance opinion is expressed.

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