Representations:
Risk and return

Document Reference: J004

This document contains UUW's representation on the Draft Determinations of the slow track and significant scrutiny water companies which impact the risk and return of our plans.

United Utilities Water Limited

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Executive summary

This document sets out UUW's representations on issues arising from Ofwat's PR19 July Draft Determinations in relation to risk and return. The issues have been raised as part of our ongoing response to the PR19 decision process which includes our IAP fast track acceptance, response to our April Draft Determination, alongside various other queries and correspondence between Ofwat and stakeholders during 2019.

We note the reduction in WACC from 2.4% to 2.19% (RPI stripped, appointee level), which compares with 3.75% at PR14 and 5.1% at PR09. We do not support the legitimacy of using latest market data to inform a WACC that would be even lower, given the significant amount of political and economic uncertainty, including the prospects of a no-deal Brexit and re-nationalisation risk, predominantly in the water sector, but also in reaction to the perception of more risky wider global dynamics. The reaction to this national political and economic uncertainty has been a depressed share price for UU and Severn Trent PLC and global economic uncertainty has resulted in a risk adverse 'flight to quality' towards less politically-sensitive investments, resulting in relatively large moves in rates and other metrics over a short period of time, which would not be appropriate to reflect in an assessment of WACC for the price control.

We have tested the impact of Ofwat's July WACC on the credit rating of the notional company using our fast track Draft Determination (with appropriate adjustments to dividend yield in line with resulting changes to the assumed cost of equity):

- Our business plan and our fast track draft determination (based on 2.4% WACC RPI-stripped) would imply ratings of Baa1 / BBB+ for the notional company.
- The WACC assumed in the July DD's (2.19% RPI-stripped) would imply ratings of Baa2 / BBB for the notional company
- Ofwat's indication of an even lower WACC based on latest market data (1.83% RPI-stripped) would imply ratings of Baa3 / BBB for the notional company

The financeability of the company (and actual ratings) depends on many assumptions that Ofwat may make at the Final Determination – not just its assumption for the WACC. However, as not all necessary information has been made available to us (for example, a populated financial model), we are unable to reliably estimate the amount of overall revenue that the draft determinations now imply UUW could expect to be allowed during AMP7, nor the likely level of revenue in the prospective final determination. This uncertainty significantly restricts our ability to come to any view about the adequacy or otherwise of the revenue allowance and it is the overall revenue outcome that determines financeability and financial resilience.

If the final determination assumes, in addition to Ofwat's proposed slow track DD WACC:

- Recognition for our representations on cost assessment (including cost adjustment claims);
- Recognition of our representation on PAYG and "fast cash" advancement, including our proposals (in our fast track DD response) to accelerate transition of CPIH, by advancing RCV run-off;
- Higher resultant revenue allowances, such that customer bill levels (overall level and profile) are consistent with our September 2018 business plan; and

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- Amelioration of our more significant ex post revenue risks, in particular to further reduce the detrimental impact of Ofwat's proposed internal sewer flooding and sewer collapses ODIs;

then the board is likely to judge that the final determination will enable the company to be financeable and financially resilient on both an actual and notional company basis.

However, given that we cannot predict Ofwat's judgement on the various issues set out above (and detailed in our representations), it is impossible at this stage to arrive at any definitive conclusion regarding the financeability of Ofwat's proposed change to the WACC as it applies to the actual company.

What is clear is that the implications of the draft determinations mean that there is a pressing need for Ofwat to accept our proposal for greater CPIH transition. In our fast track DD response (*D004 – Financing and financial model*) we set out that it would be both feasible and desirable (given further bill reductions), and that moving towards full CPIH transition was also supported by customers. In light of the ongoing uncertainty on final cost assessment and the translation of those changes into PAYG, as well as Ofwat's proposed reduction of the WACC to 2.19%, there is an even stronger case for the CPIH transition proposal to be accepted in order to facilitate the financeability and financial resilience of the company following the final determination.

We trust that Ofwat will take these representations in the round, and make the necessary amendments to our RCV run-off, as proposed in our fast track DD response, as part of a Final determination that is capable of being accepted by the company on the basis of its overall financeability.

This document is set out as follows:

Section 1 sets out our estimate of impact on credit ratings for the notional company resulting from Ofwat's revised July WACC and its proposed downward pressure WACC

Section 2 explains our assessment of financeability, and the increased need for revenue advancement (in particular our proposals to accelerate CPIH transition) in light of the July WACC

Section 3 describes our view on Ofwat's July WACC assessment and its component parts, in particular Ofwat's approach to estimating the equity beta

Section 4 expands on Ofwat's application of the notional company structure within its financeability assessment

Section 5 represents on the RoRE risk range, specifically that the ODI range is skewed to the downside across the industry

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1. Impact of July draft determination WACC revision

In the July draft determinations, Ofwat has reduced its assumed WACC, and has asked companies to provide their assessment on the financeability of that change. In our PR19 submission we target credit ratings for the notional company of Baa1 / BBB+. These ratings are attainable based on achieving a certain level of revenue from the various regulatory sources, e.g. WACC, PAYG, RCV run-off, and PAYG / RCV run-off advancement.

The credit ratings now achievable from the lower July DD WACC are Baa2 / BBB; a further detriment of 37 basis points to the cost of capital (the "DD Downward Pressure WACC") would result in ratings of Baa3/BBB. These ratings have been assessed consistent with the approach used in our September 2018 business plan. Section 2 below further sets out our views on how these changes in the WACC impact on the financeability and financial resilience of the company, and how this affects our views on the revenue advancement required by the company

1.1. Revised WACC – impact on notional company credit ratings

We have assessed what impact the July DD WACC would have upon notional company credit ratings. We have applied Ofwat's July DD WACC and revised dividend assumptions to Ofwat's UUW fast track notional draft determination financial model. These revised assumptions lead to a credit rating for the notional company of Baa2 / BBB, with both ACICR and FFO / debt metrics falling the target credit rating of Baa1 / BBB+ stated in our September business plan.

As we noted in our fast track DD response (*D004 – Financing and financial model*), this result is purely mechanistic, reliant on Ofwat's WACC and required thresholds for key rating agency metrics ACICR and FFO/debt. As this observation is for the notional company structure, management actions or company actual structure or performance does not and should not impact the result.

1.2. DD Downward Pressure WACC – impact on notional company credit ratings

Ofwat indicates a further reduction of 37bps to the July DD WACC. This would cause our key financial metrics to fall below the threshold (both rating agency and Ofwat's) required for a Baa2 rating, given the ratio on the ACICR metric. We therefore presume that it would be rated Baa3, however we are not aware of thresholds for this rating and metric.

1.3. Views of credit rating agencies

In response to Ofwat's July DD WACC, Moody's[1] sets out the expected impact on adjusted interest cover for a notional company from the July DD WACC and the DD Downward Pressure WACC. The graph below indicates an ACICR (alternative) of c1.3x for a notional company using the July DD WACC and an ACICR (alternative) of 1.15x using the DD Downward Pressure WACC.

[1] "Ofwat tightens the screws further", Moody's, 26 July 2019

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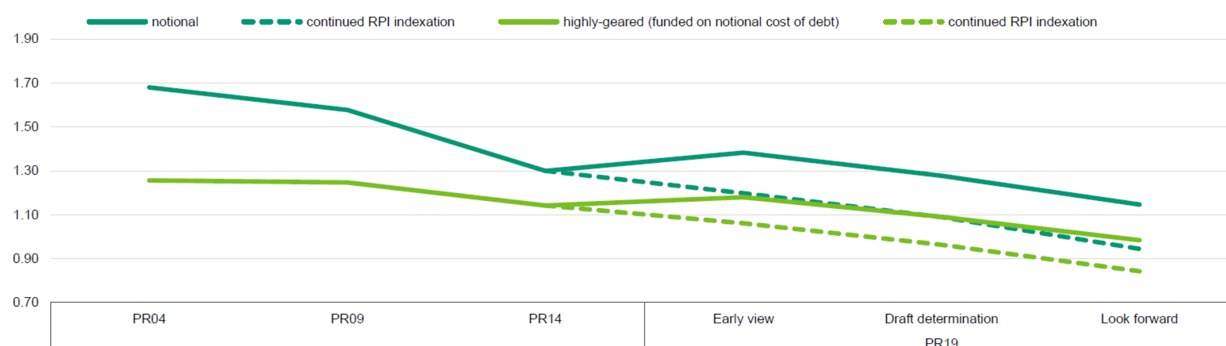
These rates are set against Moody's current thresholds[2] which set the lower threshold for a Baa2 rating at 1.3x. This indicates a weak Baa2 rating for a notional company assuming the July DD WACC and a Baa3 rating for a notional company assuming the DD Downward Pressure WACC, which is consistent with our assessment, as set out above.

Exhibit 4
AICR of the notional company will be significantly weaker, leaving very little financial flexibility



The dotted line indicates where the AICR would be on a like-for-like real RPI return basis. The shift to CPIH indexation for 50% of the March 2020 RCV as well as all new RCV additions will provide additional cash flows in comparison, but only at the expense of lower RCV growth over time. The notional company is being funded at the regulatory cost of capital; for PR19, where the cost of capital is based on a blended RPI-CPIH inflation, the above calculation assumes that the inflation-linked funding is raised in the same RPI-CPIH proportion
Source: Moody's Investors Service

In its commentary on Ofwat's July DD WACC, Fitch[3] stated:

> *"This [cost of capital] reduction will result in further pressure on cash-based post maintenance coverage ratios (PMICRs) and reduce financeability. Our analysis of the notional company (a theoretical company modelled using the assumptions below) suggests that its average cash PMICR in AMP7 will be 1.28x compared to 1.39x before the revision. As we have previously stated, **it would be difficult for an uncovenanted entity to retain an investment-grade IDR if the cash-based PMICR was consistently below 1.3x in our forecast, unless gearing was particularly low.***

We note that Fitch usually applies a rating one notch higher than the 'IDR' (issuer default rating) to debt issued by an uncovenanted entity in the water sector reflecting the expectation of a higher recovery under default compared to other sectors.

On 9th August, S&P announced[4] that it had revised the outlook on UU's credit ratings to negative from stable. S&P stated:

> *"Following the draft determination announced by the regulator, Ofwat, and the update to Ofwat's assessment of the weighted average cost of capital in July 2019, we believe that United Utilities Water Ltd (UUW) and its parent*

[2] "Regulator's proposals undermine the stability and predictability of the regime", Moody's, 22 May 2018, page 5
[3] "Ofwat price review intensifies pressure on UK water sector", Fitch, 26 July 2019, bold emphasis added
[4] "United Utilities Group Outlook Revised To Negative On Potentially Weaker Credit Ratios In The Next Regulatory Period", S&P Global Ratings, 9 August 2019, page 1

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United Utilities PLC (UU)--together, the group—will struggle to maintain their current credit metrics over the next regulatory period starting April 2020.

This is because the group will generate lower cash flows due to about a 42% reduction in the allowed return on capital…"

Views of ratings agencies on impact of revenue advancement on credit metrics

As noted in our fast track DD response, Moody's look through the effects of revenue advancement[5] which they explain as follows:

> *"We believe that changes in the speed of money do not alter a company's credit quality in themselves. On an NPV basis, the movements will be neutral. However, there can be positive or negative implications for a company's liquidity position. "Excess" cash flows received early (i.e., a larger revenue allowance than cost expensed in any given year) can alleviate some financial pressure, and the additional liquidity can fund investments without raising more debt. However, the opposite longer term effect should not be ignored. The ability to generate stable and predictable cash flows in future period supports companies' continuous need to refinance. With a lower future RCV, future debt capacity will also reduce."*

This revenue advancement look-through is not unique to Moody's. In its commentary on Ofwat's July DD WACC, Fitch[6] stated:

> *"To improve financeability for some companies, Ofwat has increased Pay-As-You-Go (PAYG) rates and proposed lower dividends. We will however adjust cash PMICRs [post maintenance interest cover ratios] to align accounting treatment of opex with the regulatory treatment if companies use the PAYG rate above the accounting level."*

We recognise that Ofwat has explained why it considers it is reasonable for its ACICR metric not to look-through such advancement, and its view that revenue advancement supports financeability. However, UUW must also be cognisant of the aforementioned views of the ratings agencies, as it is their assessments are critical in determining whether or not we have met our actual licence requirement of holding investment grade credit ratings. When considering financeability and financial resilience, the company must pay heed both to the actual (likely) impact on our credit rating as well as any (separate) assessment of liquidity, whereas Ofwat's statements to date on this issue appear to focus only on the need to consider the latter.

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[5] "2015 Industry Outlook. UK Water Sector: Stable outlook despite challenging regulatory review", Moody's, 13 October 2014

[6] "Ofwat price review intensifies pressure on UK water sector", Fitch, 26 July 2019, bold emphasis added

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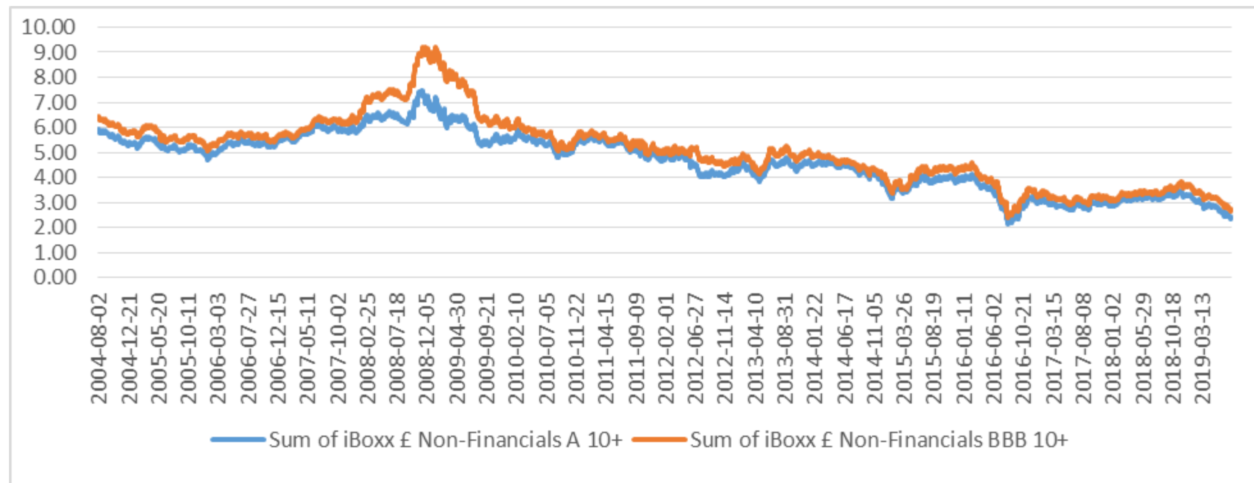
1.4. Revised WACC – impact on debt indexation mechanism

Ofwat applies an average of the A and BBB iBoxx indices to the revised cost of new debt, implying a rating that is either a weak A3 / A- or a strong Baa1 / BBB+. However, Ofwat's July DD WACC results in financial ratios for the notional company that are commensurate with a Baa2 / BBB credit rating at most and could be as low as Baa3 / BBB if the July DD WACC is reduced further (see section 1.2 above). The chart below shows the long term view of the two iBoxx indices, highlighting their recent low levels.



We estimate the difference between the two indices to be 29 bps (on average, over the last ten year period).

Ofwat should rectify this inconsistency in the determinations by ensuring that the index used for new debt is consistent with the credit rating implied by its WACC assumption. To not do so would mean that the determinations were internally inconsistent.

In summary, we propose that Ofwat:

- recognises the likely impact on credit ratings of its revised WACC, including the views of credit ratings agencies
- sets a final determination in the round which enables companies to finance their functions, with reference to a reasonable return on capital
- rectifies the current inconsistency between the rating implied by the revised WACC and that assumed for the cost of debt index

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2. Financeability and revenues from PAYG and RCV run-off

We viewed our submitted business plan (from September 2018) as financeable on both the notional company and actual company basis. Since then, Ofwat has made a number of interventions to the plan and proposed reductions to the WACC.

In this section we summarise:

- the key elements of the financeability assessment associated with the submitted business plan;
- our assessment of the negative impact of Ofwat's revised view of the cost of capital on the financeability of the notional company;
- the reasons why we consider that it is not possible to come to a view about the financeability or otherwise of the actual company (including with reference to changes in the cost of capital); and,
- factors which are likely to support a conclusion that the determination in the round would be financeable.

2.1. Assessment of financeability in our submitted business plan

In September 2018, we assessed that our submitted business plan was both financeable and financially resilient, on both a notional and actual company basis, the latter with reference to the board's target credit ratings (for the actual company) of A3 and BBB+. As set out in our business plan (document s7003), the targeted ratings and the access they give to funding are also a supporting element of our financial resilience and long term viability.

To evidence the impact of ratings on market access and financing costs we included the charts below which show periods of market disruption (Figure 1) and how our credit spread and the iBoxx GBP A and BBB index spread to gilts reacted (Figure 2). These graphs show that during periods of market weakness (highlighted in red), our credit spread reacted similarly to the 'A' band corporate index, whereas the lower rated 'BBB' band corporate index widened materially more. This indicates that at times of market disruption, access to funding by corporates in the BBB rated index is more problematic and is likely to be materially more expensive.

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Figure 1 Chart showing periods of market disruption, Source: Goldman Sachs and Bloomberg as at 20 July 2018

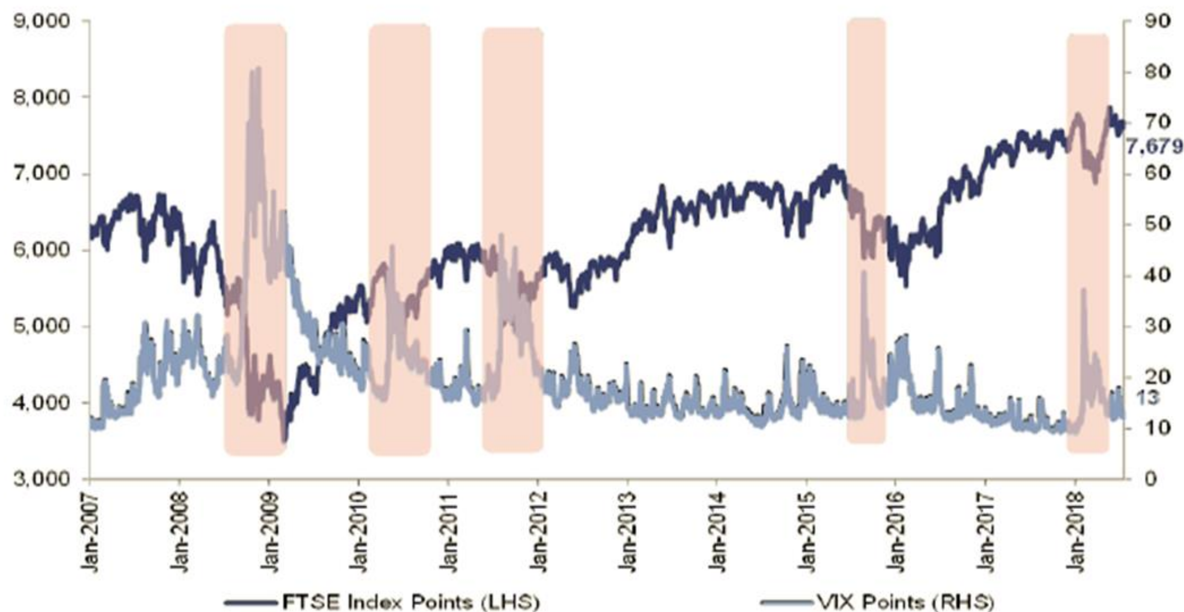
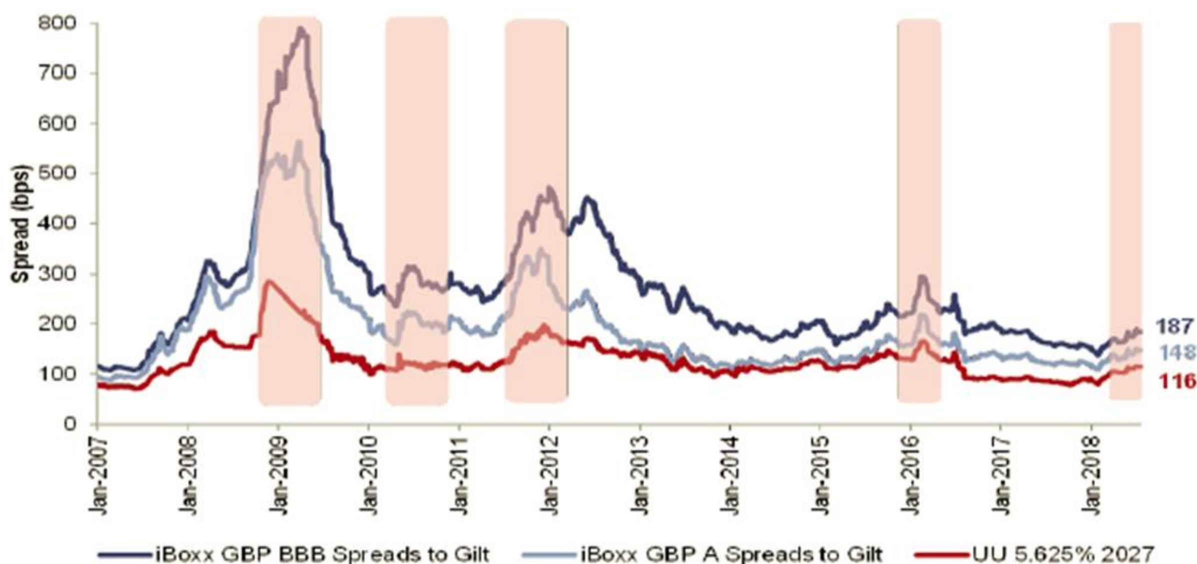


Figure 2 Chart showing our credit spread versus A and BBB rated sterling corporate credit, source: Goldman Sachs and Bloomberg as at 20 July 2018



2.2. Updated view of notional company financeability

We have taken steps to assess the impact on credit ratings for the notional company that result from application of the various WACC values to our fast track draft determination from April. This uses Ofwat's early WACC guidance, the slow track DD WACC, and Ofwat's indication of a further deterioration when using later spot data (the "DD downside" WACC). These values, for the appointee WACC, are 2.4%, 2.19% and 1.82% respectively, on an RPI stripped basis.

Based on third party analysis, undertaken consistently with the approach used in assuring our submitted business plan, we observe that all things remaining equal, amending the different WACCs alone for the notional company, results in the follow credit ratings:

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WACC	Moody's rating	S&P rating
Early PR19 guidance (2.4%)	Baa1	BBB+
Slow track DD (2.19%)	Baa2	BBB
DD downside (1.83%)	Baa3	BBB

On this basis, the notional company analysis suggests that where we were able to raise new debt in the period, the lower WACC values, and resulting reductions in credit ratings, risks:

- higher costs of new debt in general;
- in the event of market disruption - which is impossible to rule out in AMP7, particularly but not exclusively given the level of uncertainly flowing Brexit - poorer access to debt markets and/or a marked increase in the cost of debt; and,
- reduced levels of financial resilience available opposite future cost shocks.

We also observe from the draft determinations published by Ofwat that companies proposing a Baa2 or BBB credit rating were challenged as to whether this provided a sufficient level of resilience and that a number of measures were implemented as a result including, for example, additional revenue advancement.

2.3. Considerations on actual company financeability

Financeability and financial resilience stem from the company's overall revenue relative to its costs, and its *ex post* revenue risk, for example due to ODI performance. As such, the financeability of the company (and actual ratings) depends on many assumptions that Ofwat may make at the Final Determination – not just its assumption for the WACC. Such assumptions include:

- Totex allowances – whereby uncertainty remains about Ofwat's treatment of grants & contributions and its allowance or otherwise of outstanding cost adjustment claims (including, for UUW, reservoir safety, diversions, drainage etc.).
- PAYG rates – where it is currently unclear how these are affected by Ofwat's revised cost assessment models, and also how PAYG rates may or may not change following aforementioned changes in totex assumptions.
- ODIs – where any further changes to targets and incentive design and rates will impact the likely (P50) outcome for the company.

In addition to these uncertainties, Ofwat has chosen not to share full details of the impact of slow track determinations on fast track companies. For example, Ofwat has not shared its updated financial model nor updated PAYG rates.

Absent such information, UUW continues to face significant uncertainty about the implications of Ofwat's recent publications have for UUW's expected outcome. In particular, we cannot reliably estimate the amount of overall revenue that UUW could expect to be allowed during

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AMP7 based on updating for the most recent assumptions applied to slow track draft determinations provided to slow track companies.

The degree of uncertainty in this regard is well in excess of £500m in UUW's case, significantly restricting the company's ability to come to any view about the adequacy or otherwise of the revenue allowance. Crucially, it is the overall revenue outcome that determines financeability and financial resilience, rather than just a single financial input (even one as important as the WACC.) We are therefore unable to come to a view that the revisions made by Ofwat, including its proposed adjustments to WACC, provide a financeable plan on an actual company basis.

2.4. Factors likely to support financeability

We set out in response to our fast-track draft determination a number of issues which would increase allowed revenues in AMP7 from that assumed within our DD. We further proposed that the value of these representations be capped at the overall level of customer bills (and profile) assumed within our business plan, as that was the basis of the high levels of customer support for our plan. In addition to customer support, this also represents the level of revenue that our board has already assured as being required for both notional and actual company to be financeable and financially resilient.

If the final determination assumes, in addition to Ofwat's proposed slow track DD WACC:

- Recognition for our representations on cost assessment (including cost adjustment claims);
- Recognition of our representation on PAYG and "fast cash" advancement, including our proposals (in our fast track DD response) to accelerate transition of CPIH, by advancing RCV run-off;
- Higher resultant revenue allowances, such that customer bill levels (overall level and profile) are consistent with our September 2018 business plan; and
- Amelioration of our more significant *ex post* revenue risks, in particular to further reduce the detrimental impact of Ofwat's proposed internal sewer flooding and sewer collapses ODIs

then the board is likely to judge that the final determination will enable the company to be financeable and financially resilient on both an actual and notional company basis. However, given that we cannot predict Ofwat's judgement on the various issues set out above (and detailed in our representations), it is impossible at this stage to provide any definitive conclusion regarding the financeability of Ofwat's proposed change to the WACC as it applies to the actual company.

What is clear is that the implications of the draft determinations mean that there is a pressing need for Ofwat to accept our proposal for greater CPIH transition (such as that which has been approved for some other company proposals.) In our fast track DD response we set out that it would be both feasible and desirable (given further bill reductions), and that moving towards full CPIH transition was also supported by customers. In light of the ongoing uncertainty on final cost assessment and the translation of those changes into PAYG, as well as Ofwat's proposed

reduction of the WACC to 2.19%, there is an even stronger case for the CPIH transition proposal to be accepted in order to facilitate the financeability and financial resilience of the company following the final determination.

As explained in our fast track draft determination response, *D004 – Financing and financial model*, the DD represented a revenue gap compared to our September business plan. We proposed, in our response, to close this gap using additional CPIH transition. Following our response, as a result of the July DD WACC, we estimate that this revenue gap has now grown by around £147m in respect of the lower WACC on allowed revenues (return on RCV and tax). From what we can currently observe in terms of likely revised PAYG revenues, due to July DD changes in gross totex and the calculation of "natural" PAYG rates on net totex, we also foresee a continuing revenue gap in light of the treatment of G&Cs in allowed revenues. The information available to us indicates that this element of the revenue gap which we identified in our fast track DD response has not been closed in the July DD's and therefore adds to the continued requirement for additional CPIH transition.

In response to our fast track draft determination, we proposed to accelerate transition to CPIH via advancing RCV run-off, albeit limited by the bill profile indicated by our September business plan (the overall reduction, and the reducing profile over time). We conducted further customer research (see fast track DD response document *D004a - CPIH and systems thinking ODI research debrief 170519*), which indicates that 81% of customers would find it acceptable for us to advance revenues equivalent to full CPIH transition and 63% prefer this option. We continue to propose further CPIH transition (albeit limited to prevent bills rising above the bill levels, and profile, proposed in our September business plan), which was accepted by over 80% of customers. We proposed to limit any additional CPIH transition at the bill levels (and profile) proposed in our September plan as we would be concerned about the legitimacy of a Final Determination in which bills exceeded the bill profile tested with customers, and so did not support implementing a CPIH transition that would go beyond that limit.

In our fast track DD response, we calculated the RCV run-off advancement (to achieve full CPIH transition) to be £238m over AMP7 (or 1% added to each service). This amount is equivalent to the additional real returns under full CPIH transition, using the parameters of our fast track draft determination. We noted that another company has also sought accelerated CPIH transition, supported by equivalent customer research to that which we have undertaken, which Ofwat has accepted within its draft determination. We therefore considered that our proposal should also be acceptable to Ofwat.

In light of the effect of the July DD WACC, there is now an increased need for additional CPIH transition, not only to maintain bills in line with customer preferences but that it is also likely to be required to support financeability of the notional and actual company.

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In summary, we propose that Ofwat:

- enables advancement of revenues to achieve (in part) our target credit ratings
- accepts our fast track DD proposal to increase the rate of CPIH transition, effected via RCV run-off

3. WACC components

We set out our views on Ofwat's assessment of the WACC components below.

3.1. Use of spot estimates for equity beta

The July DD WACC equity beta assessment of 0.71 is low compared with recent estimates by other economic regulators

- May 2019 Ofgem range 0.66 to 0.85 with a mid-point of 0.76
- May 2019 Ofcom Openreach BCMR 0.85
- February 2019 CAA NATS RP3 0.96[7].

One of the principal reasons for the comparatively low rate is Ofwat's chosen methodology of taking a single spot estimate of beta. Spot estimates of beta can be unreliable as they can be skewed by the usual wide standard errors inherent in empirical beta estimates. We note that spot estimates are out of line with usual regulatory practice, which usually involves looking at rolling beta estimates over a longer time horizon.

As part of our business plan submission, we submitted a WACC assessment prepared by our advisors Ernst and Young ("EY") LLP (document *T7002 – WACC in the context of Risk, Return and Resilience at PR19: Ernst & Young report*) that sets out a beta assessment methodology, which differs from that used by Ofwat in the following respects:

- Ofwat only uses daily observations when calculating beta. EY observes that the significant difference between beta calculations using two years of daily observations (resulting in lower betas) and five years of monthly observations (resulting in higher betas) could be caused by the Epps effect whereby the empirical correlation between the returns of two different stocks decrease as the sampling frequency of data increase. To address this shortcoming, EY has estimated betas using the Dimson method that seeks to correct for the effect of microstructures in daily data.
- Ofwat uses SVT and UU as comparators, whereas EY also incorporates PNN.

The equity beta range estimated by Ernst and Young in this document are 0.86 – 0.88. Ofwat's July DD equity beta value therefore sits below this range.

[7] Source: individual regulators' websites; all figures expressed on an RPI-stripped basis.

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3.2. Relationship between revenue at risk and equity beta

Ofwat does not consider the increased revenue at risk through ODIs and cost sharing rates warrants an increased return on equity. Further discussion of the increased revenue at risk from ODIs is in section 5. Ofwat states that "if this were the case, it would be reflected in the market data on beta"[8]. This presumption is only correct if variations in performance are correlated with the market, which is unlikely. It would be reasonable to expect that beta should still be adjusted for this increased revenue risk, even though it doesn't correlate with market data, and hence is not observable in current market data.

3.3. Narrow set of data points

Ofwat uses only SVT and UU to inform its analysis of beta. Whilst these are the only available listed UK 'pure play' water company betas, they may not be representative of the sector as a whole and there is scope to look outside of the sector and the UK. Ofgem, in its recent RIIO-2 cost of capital assessment, included empirical evidence from outside of the relevant sector, for example SSE and Pennon, as well as SVT and UU, thus reducing the risk of reliance on only two companies to inform a key component of a whole industry's return.

3.4. Reliance on short term data

In general, throughout the assessment of the DD WACC and particularly in the case of the DD Downward Pressure WACC, there is an over-reliance on short-term data compared to longer-term data. Over reliance on short-term data leads to the risk that short lived factors can significantly skew the WACC assessment and those factors may no longer be relevant over the period when the WACC is 'earned'.

In particular, at the moment, there is a significant amount of political and economic uncertainty, including the prospects of a no-deal Brexit and re-nationalisation risk - predominantly in the water sector - but also in reaction to more risky global dynamics with rising US-China trade tensions and concerns over a global economic slowdown. The reaction to this national political and economic uncertainty has been a depressed share price for UU and Severn Trent PLC and global uncertainty has resulted in a generalised flight to "safe-haven" assets such as gold and other assets perceived by investors as being capable of weathering market shocks[9]. This has resulted in relatively large moves in rates and other metrics over a short period of time. There is no reason to expect that this will persist over the next five years or so, as such recent movements in the short term do not imply a fundamental change in the underlying economics.

We note Moody's recent comments[10] on the fall in Ofwat's estimate of the equity beta as part of the July DD WACC:

[8] "PR19 Draft determinations: Aligning risk and return technical appendix", Ofwat, July 2019, page 13
[9] "Brexit and flight to safety propel sterling-priced gold to record high", Reuters, 5 August 2019
[10] "Ofwat tightens the screws further", Moody's, 26 July 2019

> *"…equity beta, a measure of the undiversifiable risk of investing in a water company. This change was not a result of lower observed equity betas for listed UK infrastructure companies, which have actually risen slightly since the early view, but an increase in the debt/capitalisation ratio because their share prices have fallen sharply. Ofwat and its economic advisers believe that because share prices fell without a corresponding movement in the market, equity investors must believe there is less systematic risk associated with investing in water companies and that they therefore require a lower return."*

We would characterise the recent fall in share price as being more to do with heightened nationalisation concerns as opposed to a lowering of systemic risk. As these heightened political and economic concerns unwind it is likely that any WACC based on spot data will become unrepresentative of the subsequent economic environment. We believe that a more balanced assessment of both longer term and shorter-term data would be more appropriate.

Specifically in relation to TMR, the March 2018 UKRN paper on cost of capital said that the most robust framework for setting TMR was to use historical long-term data. However, Ofwat continues to place significant weight on forward looking DGM models, which is contrary to the UKRN's view.

3.5. Ratio of embedded to new debt

We are pleased to observe that, Ofwat has revisited its embedded: new debt ratio in the revised WACC, as it committed to do so in the final methodology. As we stated in our May 2019 response to our draft determination, we noted that the actual ratio in the 10 WaSCs business plans was now 83:17, not 70:30 as in Ofwat's PR19 final methodology. Ofwat has revised this ratio to 80:20, slightly under that which we observed based on September and April business plans. Considering that Ofwat's July draft determinations see further totex efficiencies for the slow track companies – and therefore a reduction in the scale of new borrowing implied by the DDs - we believe that the balance apportioned to embedded debt should be even higher than our May 2019 observations and therefore certainly higher than Ofwat's assumption of 80:20.

In summary, we propose that Ofwat:

- broadens it assessment of equity beta
- reflects the increased revenue at risk in AMP7 appropriately in an increased return on equity
- increases its set of data points to inform its analysis of beta
- places more reliance on historical long-term data
- reassesses the ratio of embedded : new debt ratio in light of slow track totex plans

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4. Normalisation of dividend assumptions in notional financial structures

We welcome Ofwat's intention to standardise notional company dividend yields and growth within their financial model thus enabling further consistency between financeability assessments. We recognise Ofwat's rationale of setting the dividend assumptions for the notional company, as base plus growth to equate to the cost of equity.

However, this rationale only functions correctly if the policy is applied consistently in a way that recognises that assumed rates of dividend growth persist across price control periods – this is because Ofwat's dividend assumptions (of a sub Cost of Equity base yield plus a real growth rate) are only consistent with the assumed Cost of Equity into perpetuity, not within the five years of a single AMP period. Ofwat does not apply the policy into perpetuity, but rather resets it's starting point every five years with each Price Review. This has been the case since at least PR99. Ofwat's AMP7 dividend yield assumption should include an amount relating to growth over the period of time in which Ofwat has been applying its lower "base yield plus real growth" approach to setting assumed dividends. Because the policy is reset every five years, with no reference to the previous rates, there is a risk that, over the fullness of time, price limits are never actually set in a way that is consistent with a dividend distribution at the Cost of Equity, despite that being implied by Ofwat's assumptions in the July draft determination[11].

The chart below shows the cost of equity assumed in Ofwat's notional company financeability assessment, re-set to zero at every five yearly price control, compared to the cost of equity "in perpetuity" which should have been applied in Ofwat's assessment. The grey line ("Cost of Equity (5 year re-set)" shows the cost of equity assumed in each price review notional company financeability assessment. This is then shown in the assumed components of yield and growth in the flat lines below. The dark green line ("Cost of Equity (in perpetuity)" shows the base yield for that price review, including growth from that year and all previous price review years, in which we think Ofwat has applied this "in perpetuity" basis of calculation to the allowed cost of equity in their dividend modelling. The dark green line therefore contains the dividend growth from all relevant previous price controls, whereas the grey line does not, as it has been re-set every five years with no inclusion or reference to the previous price controls.

[11] "PR19 Draft determinations: Aligning risk and return technical appendix", Ofwat, July 2019, pages 58 - 59

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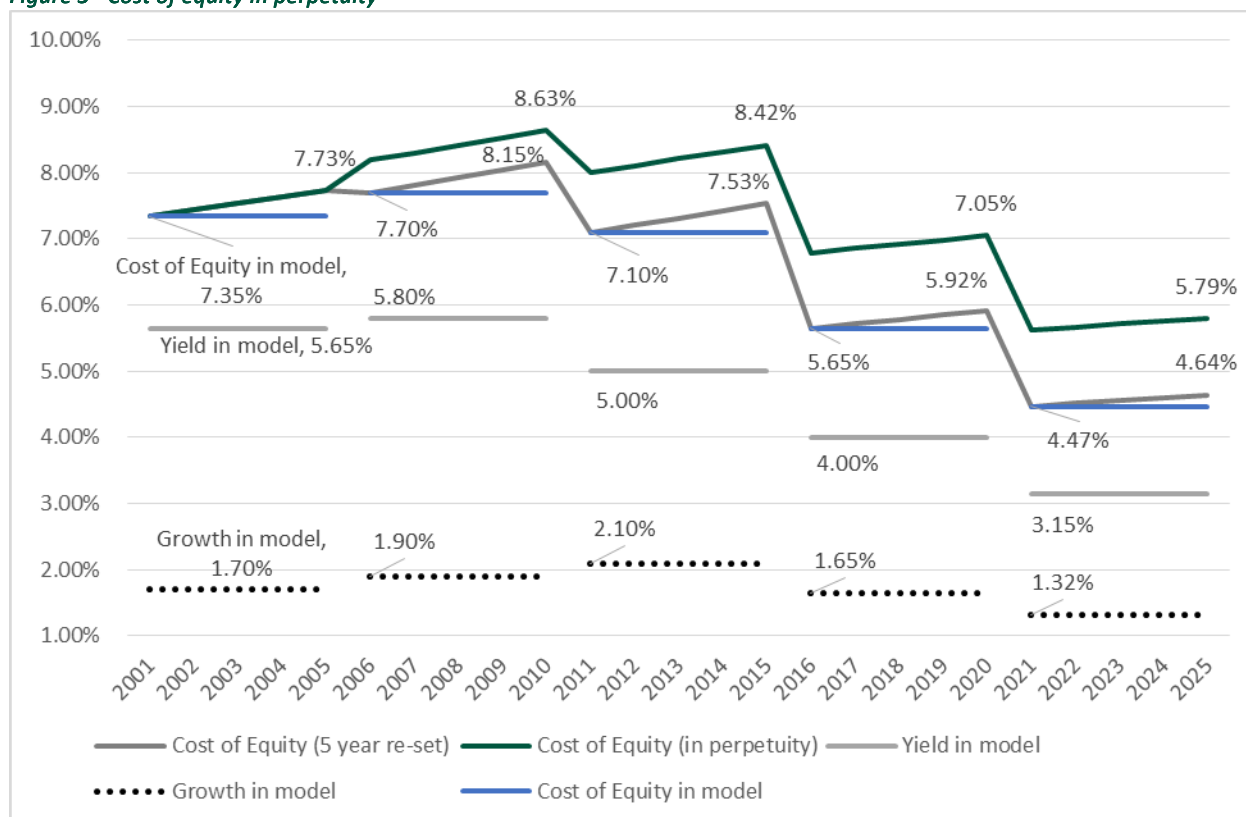
Figure 3 - Cost of equity in perpetuity



*N.B. AMP7 cost of equity expressed on a CPIH-basis consistent with Ofwat's draft determination: Aligning risk and return technical appendix page 59. All other years presented on an RPI basis, in line with the indexation basis of those price reviews.

This low dividend yield assumption boosts the perceived financeability of the notional company and can conceal an underlying stretched financeability position.

To avoid making unreasonable notional company assumptions, and thus skewing Ofwat's resultant financeability assessment of the notional company, the dividend assumptions should reflect the allowed cost of equity from the current and previous price reviews where Ofwat's current approach has been taken. At 2025, this would result in a base yield of 4.47%, including growth from all previous years, with annual growth of 1.32%.

In summary, we propose that Ofwat:

- should reflect in their notional company dividend assumptions the allowed cost of equity from the current and previous price reviews.

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5. RoRE risk range

We have set out our revised version of App 26

Ofwat has made further interventions in the July draft determinations which exacerbate the downside skew of company ODI ranges. Taken together with the reduction in the cost of capital, Ofwat's continued interventions in the July draft determinations give an overall package which does not provide a reasonable balance between risk and return.

5.1. Revisions to App 26

We have set out our revised version of App26 in document J004a, which reflects our views of Ofwat's slow track draft determinations. For convenience, we have also provided an additional version of App26 which reflects our slow track DD ODI representations, as set out in document J002.

For the financing ranges we have assumed that Ofwat will change to cost of debt index in accordance with our representations in section 1.4 of this document

5.2. ODI range skewed to downside

Ofwat's final methodology stated an indicative range for the size of companies' ODI outperformance and underperformance payments of ±1% to ±3% of RoRE. The industry average range as published in draft determinations falls below Ofwat's own indicative upside range, at +0.6%, as shown in the chart below (Figure 4). Only three companies fall within Ofwat's range. As noted in our fast track DD response, our own upside range in our fast track DD was outside of this range. The chart shows how constrained the upside range is, compared to the published downside range, the industry average of which falls within Ofwat's indicative range of -1% to 3% of RoRE. This constraint on the upside and reward potential is not in customers' interests as it reduces the financial incentive for companies to deliver great performance for their customers. Lack of a similar constraint on the downside range indicates that Ofwat has not considered revenue at risk in the round in the draft determinations.

Decisions made by Ofwat in the July draft determinations has further deteriorated the downside skew for our ODI range. We estimate the impact could be to reduce the potential upside, and increase the potential downside, by 0.5% of RoRE, depending on the way in which changes are implemented. For further discussion of this, see "*J002 – Outcomes*". Such changes are not reflected in the chart below for any company.

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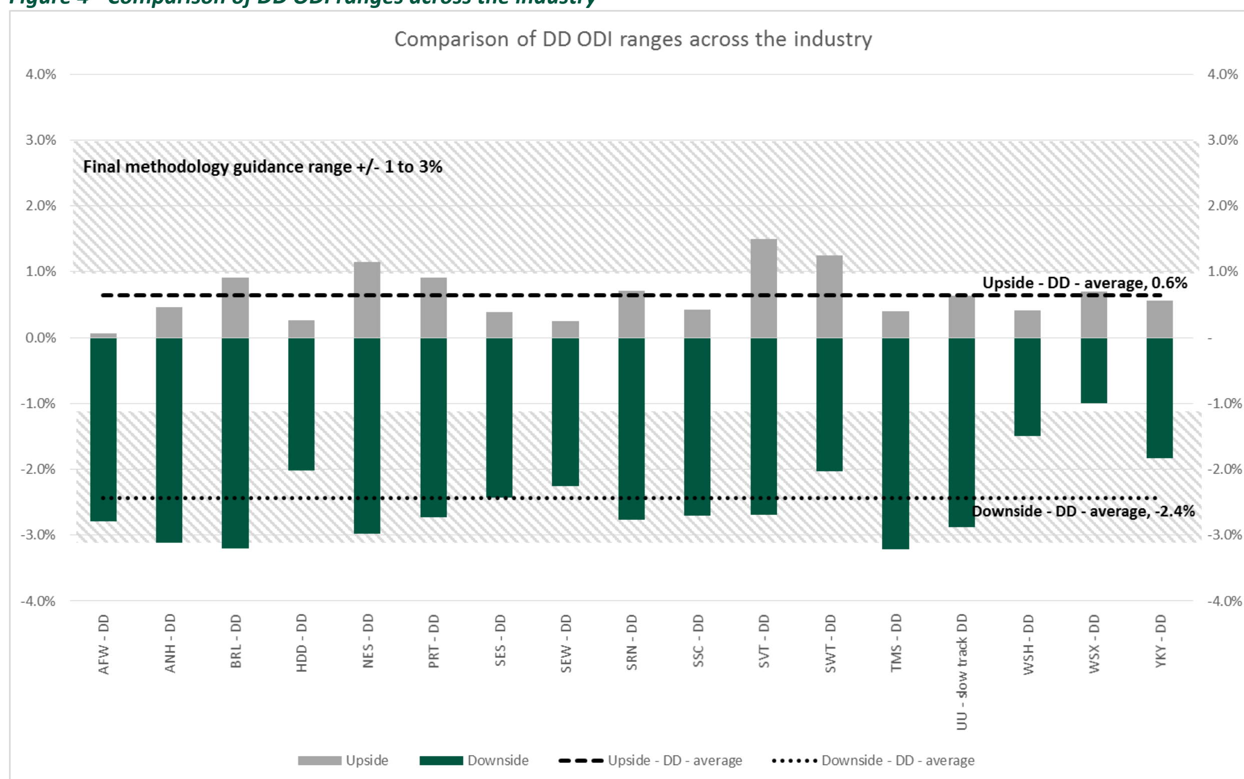
Figure 4 - Comparison of DD ODI ranges across the industry



N.B. Fast track companies' SVT, SWT and UU RoRE ranges are from the April financial models (UUW corrected range to reflect our view of the slow track draft determinations)

The chart below (Figure 5) shows how Ofwat's interventions between IAP and draft determinations have significantly curtailed companies' potential for upside rewards whilst at the same time not also applying a proportionately significant curtailment to companies' potential for downside penalties. The chart also shows that industry proposals for upside rewards, at both plan and resubmission, were in the main within Ofwat's indicative range of +1% to +3% of RoRE. However, Ofwat's DD range is not.

In summary, we propose that Ofwat:

- reflects an upside ODI RoRE for UUW within the 1-3% indicative range required by Ofwat's PR19 methodology

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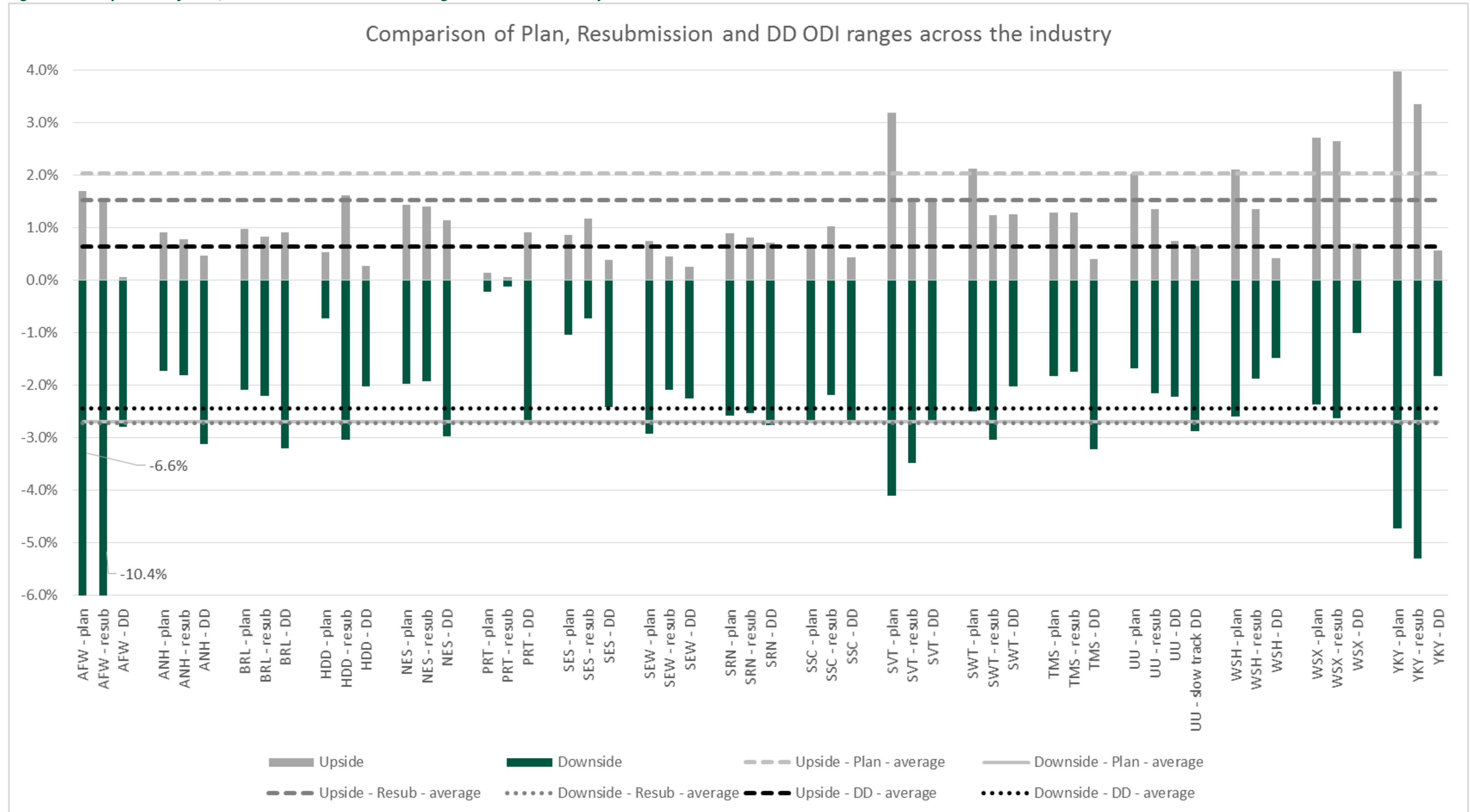
Figure 5 - Comparison of Plan, resubmission and DD ODI ranges across the industry



N.B. Fast track companies' SVT, SWT and UU RoRE ranges are from the April financial models (UUW corrected range to reflect our view of the slow track draft determinations)

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