

## Ofwat's PR24 and beyond risk and return discussion paper: our response

### 1 Executive Summary

- 1.1 The Energy Networks Association (ENA) welcomes the opportunity to respond to Ofwat's risk and return discussion paper.
- 1.2 We set out our most significant comments and concerns with the discussion paper below.
- The Competition and Markets Authority (CMA) PR19 redetermination is the most recent and relevant regulatory precedent for PR24.<sup>1</sup>
  - There is strong evidence in support of a convenience yield in government bond yields, which should be reflected in the risk-free rate framework.
  - Ofwat's proposed approach to uplifting RPI-linked gilts into CPIH-real terms differs from the PR19 approach without good evidence to support the change.
  - The spot risk-free rate estimate (i.e. no forward-curve uplift) underfunds the companies for likely future increases in interest rates.
  - Ofwat should anchor the total market return (TMR) in 'historical ex post returns' and place only limited weight on alternative approaches that are less robust.
  - Mason and Wright's proposals for re-levering beta seek to address an issue that is immaterial when differences between the regulatory treatment of debt and the assumptions of the Modigliani-Miller framework are adjusted for.
  - Ofwat should use the Capital Asset Pricing Model (CAPM) as the primary source of evidence for allowed returns on equity, and, to the extent that cross-checks are considered, Ofwat should place weight on Oxera's ARP-DRP analysis.<sup>2</sup>
  - Addressing the risk of underinvestment 'at source' still requires Ofwat to explicitly aim up on the cost of equity.
- 1.3 Although Ofwat has not explicitly asked questions on TMR, cross-checks, and aiming up on the cost of equity, we provide our thoughts on these points as well.
- 1.4 To ensure a focussed response, we do not discuss every point that relates to risk and return. Where we do not provide comment (such as on the allowed cost of debt), this does not signal agreement with Ofwat's approach (or lack thereof).
- 1.5 Lastly, we note Ofwat's intention to provide an early view on the allowed return on capital for the period 2025-30 in 2022.<sup>3</sup> Whilst we recognise that Ofwat's aim is to support the long-term business planning of companies, we are also mindful of the potentially detrimental effects of anchoring investors' expectations to a number today when the business plans and risk packages are still unknown and analysis of some issues is still

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<sup>1</sup> On Friday 28th January 2022, Wales & West Utilities Limited, a UK regulated gas distribution network, applied to the High Court for permission to seek judicial review of the CMA's Final Determination and Order in respect of RIIO-GD2 with regard to a number of grounds of claim, including the standard of review applied by the CMA.

<sup>2</sup> Asset risk premium minus debt risk premium.

<sup>3</sup> Ofwat (2021), 'PR24 and beyond: Discussion paper on risk and return', December, p. 7.

ongoing. We recommend that Ofwat focusses on developing its methodology for setting allowed returns, and engages with companies on the issues that they raise.

1.6 Given the long-term nature of investments in the water industry and the essential nature of service provision, Ofwat should focus on ensuring that the regulatory framework, including the allowed level of returns, provides certainty to companies and investors that these investments will be appropriately remunerated. Continued attempts by the regulator in successive price controls to depart from regulatory precedent and use methodology that is not supported by a balanced assessment of the evidence will undermine this critical objective.

## **2 The CMA PR19 redetermination is the most recent and relevant regulatory precedent for PR24**

2.1 Four water companies requested a redetermination of their PR19 price controls at the CMA in 2020, and the decision was released in 2021. The CMA undertook an ‘on the merits’ review, including the methodology for setting allowed returns in the water sector, and made several improvements to Ofwat’s approach in PR19 (some of which we cover in sections 3 to 10 below). Since then, there have been no other regulatory decisions in the UK that would override the CMA’s PR19 redetermination, which remains the most recent and relevant regulatory precedent for PR24.

2.2 The recent RIIO-2 appeals immediately followed the PR19 redetermination. The energy appellants appealed Ofgem’s cost of equity (among other grounds) and argued in favour of the CMA’s PR19 methodology for setting allowed returns. The CMA decided not to alter the RIIO-2 cost of equity, as the CMA assessed that the burden of proof that Ofgem was ‘wrong’ had not been met.<sup>4</sup>

2.3 The different nature of the appeal regimes was used by the CMA to arrive at different conclusions in PR19 and RIIO-2. Energy is a ‘direct appeals’ regime that is focussed on specific areas of the price control where the regulator is deemed to have erred in its decision. The appellants must show that the regulator’s decision was wrong in various tightly defined ways and had a material impact on the price control decision. The CMA cannot substitute an approach merely because, from a regulatory perspective, it would be an improvement.

2.4 On the other hand, a water appeal involves a redetermination of the price control by the CMA based on merits. This means that companies could benefit from redeterminations in some areas and lose out on others in other areas. In water, the CMA will substitute approaches that it considers to be an improvement in regulatory practice.

2.5 The recent RIIO-2 and PR19 appeals exemplify these differences in the legal framework. It must therefore be recognised that the PR19 redetermination is the most recent and relevant regulatory precedent for PR24, and that the way the CMA interpreted its duties limits the relevance for the water sector of the RIIO-2 appeal findings on the cost of equity.

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<sup>4</sup> On Friday 28th January 2022, Wales & West Utilities Limited, a UK regulated gas distribution network, applied to the High Court for permission to seek judicial review of the CMA’s Final Determination and Order in respect of RIIO-GD2 with regard to a number of grounds of claim, including the standard of review applied by the CMA.

**3 There is strong evidence in support of a convenience yield in government bond yields, which should be reflected in the risk-free rate framework**

- 3.1 Ofwat indicates that it is minded to estimate the risk-free rate in the CAPM using inflation-linked gilts and potentially SONIA swap rates. In relation to SONIA swap rates, we note that the CMA did not rely on these in the PR19 redetermination. SONIA swap rates appear to suffer from distortions (negative swap rates) when the horizon is extended to longer periods.<sup>5</sup> The reason that Ofwat provides for provisionally not reflecting AAA corporate bond yields in the risk-free rate is that this would require adjusting for ‘risks around liquidity, inflation, creditworthiness, and complexity as well as potentially the term premium’.<sup>6</sup> This is despite the CMA’s decision in the PR19 redetermination to put 50% weight on AAA rated corporate bond yields.<sup>7</sup>
- 3.2 Ofwat supports its position by referring to the CMA’s decision in the RIIO-2 appeal not to use corporate bond yields. At the same time, Ofwat recognises the CMA RIIO-2 panel’s view that there is evidence supporting a convenience yield in government debt and that there is therefore potential to improve index-linked gilts as a proxy for the RFR.<sup>8</sup> Ofwat intends to carry out further work to better understand the issue.
- 3.3 These issues indicate a fundamental inconsistency in Ofwat’s approach—Ofwat is willing to engage on ways to improve gilts as a proxy for the risk-free rate, yet does not consider highly rated corporate debt yields to be an appropriate part of the evidence base. We agree that it would be helpful for Ofwat to review the broad literature on convenience yields in government debt and, in particular, which medium- to long-term value is appropriate. Ofwat should also seek a similar open-minded and pragmatic approach to using AAA corporate bonds. Indeed, this was the approach taken by the CMA in the PR19 redetermination.
- 3.4 Regulators across Europe are increasingly recognising the convenience properties of government debt. The German Bundesnetzagentur (BNetzA) recently provided an uplift to the cost of equity for the fourth electricity and gas regulatory period to reflect the convenience yield in German government debt.<sup>9</sup> The BNetzA also estimates the risk-free rate with reference to German corporate debt.<sup>10</sup> In addition, the Italian regulatory authority ARERA allowed a 1% convenience yield on top of government bond yields in estimating the risk-free rate for the upcoming 2022-27 energy price controls.<sup>11</sup> The CMA is therefore not alone in its PR19 redetermination in recognising a convenience premium. Ofwat should be careful not to risk the legitimacy of its regulatory regime by failing to recognise these regulatory developments.

**4 Ofwat’s proposed approach to uplifting RPI-linked gilts into CPIH-real terms differs from the PR19 approach without good evidence to support the change**

<sup>5</sup> CMA (2021), ‘Ofwat price determinations, final report’, March, p. 781, paras 9.196-9.197.

<sup>6</sup> Ofwat (2021), ‘PR24 and beyond: Discussion paper on risk and return’, December, p. 26.

<sup>7</sup> CMA (2021), ‘Ofwat price determinations, final report’, March, p. 778-779, para. 9.160.

<sup>8</sup> CMA (2021), ‘RIIO-2 Energy License Modification Appeals: Summary of provisional determination’, 11 August, p. 17, para. 5.45.

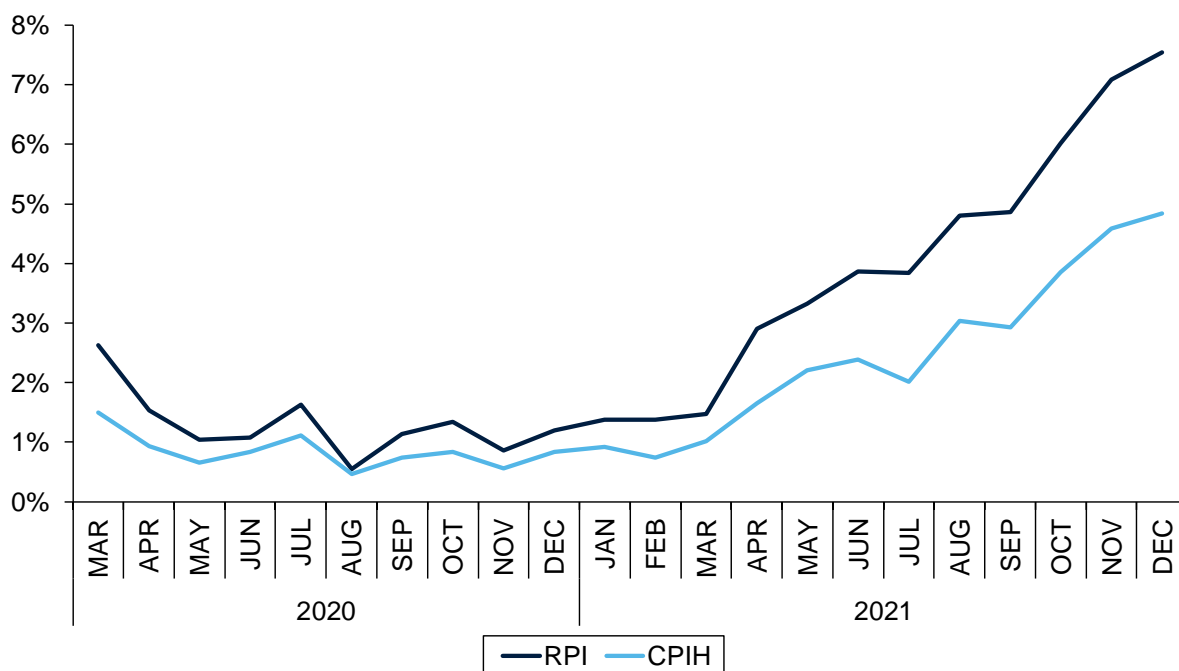
<sup>9</sup> Bundesnetzagentur (2021), ‘Beschluss in dem Verwaltungsverfahren nach § 29 Abs. 1 Energiewirtschaftsgesetz (EnWG) in Verbindung mit § 7 Abs. 6 Stromnetzentgeltverordnung (StromNEV)’, p. 38-41.

<sup>10</sup> Ibid., p. 8.

<sup>11</sup> ARERA (2021), ‘Allegato A: CRITERI PER LA DETERMINAZIONE E L’AGGIORNAMENTO DEL TASSO DI REMUNERAZIONE DEL CAPITALE INVESTITO PER I SERVIZI INFRASTRUTTURALI DEI SETTORI ELETTRICO E GAS PER IL PERIODO 2022-2027’, p. 9.

4.1 Ofwat and the CMA used the OBR’s estimate of the long-term RPI-CPIH wedge (currently 90bps) to uplift RPI-linked government gilt yields into CPIH-real terms in PR19.<sup>12</sup> Ofwat’s concern is that the wedge is expected to narrow in the future as the market reflects the phasing out of RPI in the UK. However, there is no robust evidence to suggest that the expected RPI-CPIH wedge has narrowed, while the actual wedge increased throughout 2021 with a peak of 2.6% in December (Figure 4).

Figure 4 RPI and CPIH inflation from March 2020 to December 2021



Source: Office for National Statistics.

4.2 There is also an ongoing judicial review that seeks to challenge the UK government’s plan to recalibrate the evolution of the RPI series after 2030 such that RPI inflation in effect becomes equal to CPIH inflation after that date.<sup>13</sup> It is therefore premature to assume that the wedge will narrow before Ofwat publishes its final determination for PR24. Nevertheless, the uncertainty over the future of RPI lends support to using nominal gilts deflated into CPIH-real yields to set the risk-free rate. Ofwat’s proposal to use the Bank of England’s 2% CPI target for CPIH seems reasonable at this time.<sup>14</sup>

**5 The spot risk-free rate estimate (i.e. no forward-curve uplift) underfunds companies for likely future increases in interest rates**

5.1 Ofwat proposes not to index the cost of equity in PR24, supported by a report from PwC.<sup>15</sup> The reasons include the argument that indexation does not guarantee a more accurate cost of equity (although it is likely to improve forecast accuracy), and that investors are better placed than customers to manage interest rate risk. Ofwat also cites

<sup>12</sup> OBR (2021), ‘Economic and Fiscal Outlook’, October, p. 71.

<sup>13</sup> Lewis, P. (2022), ‘The fight over measuring UK inflation’, *Financial Times*, 12 January.

<sup>14</sup> Ofwat (2021), ‘PR24 and beyond: Discussion paper on risk and return’, December, p. 28.

<sup>15</sup> PwC (2021), ‘Cost of equity indexation: Evaluating the case for indexation at PR24 and beyond’, October.

the added complexity to the regulatory regime and the potential volatility in consumer bills as reasons not to index.<sup>16</sup> In addition, Ofwat does not plan to provide an uplift to spot risk-free rates to reflect expected increases as proxied by forward rates. This is despite providing an uplift based on forward rates in PR19.<sup>17</sup>

- 5.2 A finding that rates have, in recent years, tended to decrease whilst forward rates have tended to indicate an increase does not mean that forward rates have no predictive value or that spot rates are better predictors than forward rates. Forward rates provide a market-based view of future rates and are an important part of the evidence base for setting a regulatory price control. The lack of a forward-curve uplift to spot risk-free rates (as proposed by Ofwat) underfunds companies for likely future increases in interest rates.

**6 Ofwat should anchor the TMR in ‘historical ex post returns’ and place only limited weight on alternative approaches that are less robust**

- 6.1 Ofwat’s proposed starting point to estimate the TMR in PR24 is a range derived from historical (ex post and ex ante) approaches.<sup>18</sup> Ofwat then looks to consider evidence from forward-looking approaches when deciding on the point estimate from within the range of historical estimates. We question why this is necessary, given the consensus that historical returns provide the most robust basis for setting regulatory price controls for long-lived infrastructure investments.

- 6.2 Furthermore, there are some important details that will affect the TMR range which Ofwat has yet to clarify.

- (a) On deflating historical returns, Ofwat indicates that it will rely on the ONS’ new CPIH back series ‘subject to it successfully passing a review of suitability’.<sup>19</sup> We are concerned with this approach, as Ofwat does not outline the criteria for its assessment. Before this series can be used to inform the TMR range, it must address the issues with the previous back series.<sup>20</sup> If the new back series fails to address these issues, or it is described as indicative, not for official purposes, or otherwise heavily caveated, Ofwat should revert to the CMA’s PR19 approach of placing equal weight on RPI and CPIH-deflated returns. Despite our concerns with the existing CPI back series, we consider that this approach fairly balances out any perceived issues in the historical RPI and CPIH series.
- (b) On averaging the historical returns, Ofwat has not yet clarified what it plans to do. The CMA considered this extensively during PR19, and we support the approach of focussing on the arithmetic average, and testing for the impact of serial correlation by looking at non-overlapping arithmetic averages.<sup>21</sup>
- (c) Analysis of ‘historical ex ante’ returns is more controversial and less robust than analysis of ‘historical ex post’ returns. Such approaches are not commonly applied by practitioners, and the datasets required to undertake them over the long term are not readily available. Analyses have been published with widely differing

<sup>16</sup> Ofwat (2021), ‘PR24 and beyond: Discussion paper on risk and return’, December, p. 20.

<sup>17</sup> Ofwat (2019), ‘PR19 final determinations: Allowed return on capital technical appendix’, December, p. 38.

<sup>18</sup> Ofwat (2021), ‘PR24 and beyond: Discussion paper on risk and return’, December, p. 25.

<sup>19</sup> Ibid.

<sup>20</sup> For example, see Oxera (2021), ‘The cost of equity for RIIO-ED2’, June, section 4.1.

<sup>21</sup> CMA (2021), ‘Ofwat price determinations, final report’, March, p. 819-822, paras 9.329-9.338.

results depending on the datasets adopted by the authors. We caution against placing weight on results that are derived using such approaches.

- (d) Forward-looking evidence on TMR is in the form of surveys and dividend discount models (DDMs). Ofwat recognises that DDMs are assumption-driven, in particular on the choice of growth rate in dividends, which can lead to a range of values.<sup>22</sup> To the extent that Ofwat places any weight on forward-looking evidence, we request Ofwat to place weight on the full range of specifications for these models, including, for example, the Bank of England’s DDM.<sup>23</sup>

**7 Mason and Wright’s proposals for re-levering beta seek to address an issue that is immaterial when differences between the regulatory treatment of debt and the assumptions of the Modigliani-Miller framework are adjusted for**

7.1 Ofwat’s discussion paper on risk and return is accompanied by a report from Professors Mason and Wright.<sup>24</sup> The report discusses the de-levering and re-levering of equity betas in the CAPM, and repeats Mason and Wright’s representations at the CMA. The authors observe that the regulated allowed return on capital appears to increase with gearing and are concerned that this violates the theoretical position that the weighted average cost of capital (WACC) should be invariant to gearing. This apparent disconnect between practice and theory leads the authors to recommend a range of approaches to re-levering beta, describing these as ‘valuable cross-checks’ on the cost of capital.<sup>25</sup>

7.2 Mason and Wright observe that Ofwat’s PR19 ‘WACC’ would have been 15bps lower by setting observed gearing equal to notional gearing.<sup>26</sup> However, Modigliani-Miller derived the result that the WACC is invariant to gearing by assuming that ‘the firm borrows at the market rate of interest’.<sup>27</sup> In contrast, and as explained by Ofwat in the PR19 redetermination, Ofwat’s estimate of the **regulated allowed return on capital** diverges from the Modigliani-Miller framework by including the cost of embedded debt.

‘Finally, while noting the CMA’s finding that an asset beta which varies with gearing may achieve a WACC which is constant, we have concerns that a gearing-invariant WACC may not be a good approximation for the circumstances of the water sector, due to the presence of important features of the regulatory framework which are not captured in the Modigliani-Miller theorem. For instance, as noted by Europe Economics (2020), embedded debt is outside the Modigliani-Miller framework; its inclusion could be expected to result in an upwards-sloping WACC function as gearing increases.’<sup>28</sup>

7.3 If the cost of **new** debt in PR19 is used in the Modigliani-Miller framework, then according to Mason and Wright’s calculations the PR19 WACC would have been 6bps (rather than 15bps) lower by setting observed gearing equal to notional gearing. Any remaining differences in WACC calculated at notional gearing instead of observed gearing could reflect incorrect parameter choices, such as the convenience yield not being accounted

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<sup>22</sup> Ofwat (2021), ‘PR24 and beyond: Discussion paper on risk and return’, December, p. 24.  
<sup>23</sup> For example, see Oxera (2021), ‘The cost of equity for RIIO-ED2’, June, section 4.1.2.  
<sup>24</sup> Ofwat (2021), ‘PR24 and beyond: Discussion paper on risk and return’, December, p. 23. See also Mason, R. and Wright, S. (2021), ‘A report on financial resilience, gearing and price controls’, December, pp. 9-10, paras 3.8-3.15.  
<sup>25</sup> Mason, R. and Wright, S. (2021), ‘A report on financial resilience, gearing and price controls’, December, p. 33, para 5.31.  
<sup>26</sup> Mason, R. and Wright, S. (2021), ‘A report on financial resilience, gearing and price controls’, December, p. 27, para. 5.8.  
<sup>27</sup> Modigliani, F. and Miller, M. H. (1958), ‘The Cost of Capital, Corporation Finance and the Theory of Investment’, The American Economic Review, 48:3, June, pp. 289, footnote 48.  
<sup>28</sup> Ofwat (2020), ‘Reference of the PR19 final determinations: Risk and return – response to common issues in companies’ statements of case’, May, para. 3.81

for in the risk-free rate. Or such differences could arise due to mismatches between when cost of equity and cost of debt parameters are measured.<sup>29</sup>

- 7.4 Mason and Wright’s proposals for re-levering beta therefore seek to address an issue that is immaterial when their error is corrected. Moreover, each of the proposals create problems that are larger than the problem they are purported to solve. Adopting any of these proposals in PR24, even just as cross-checks, would be poor regulatory practice and would undermine investor confidence.
- 7.5 One of the proposals (the ‘CAPM-WACC’) involves using the CAPM to estimate the cost of debt. Practitioners do not use the CAPM to estimate cost of debt because there are market benchmarks for the cost of debt. Applying the CAPM to the cost of debt would yield an estimate significantly lower than the market cost of debt. Indeed, Mason and Wright themselves acknowledge that ‘the CAPM is a poor model of debt returns’.<sup>30</sup> We therefore consider that Mason and Wright’s proposal to estimate the cost of debt using the CAPM would be a clear violation of the financeability duty.
- 7.6 Most of the other proposals are variations of back-solving a cost of equity that yields a regulatory allowed return on capital that is invariant to gearing. These proposals have their own problems. For example, setting notional gearing for the water sector equal to the observed gearing of two listed water companies would damage investor confidence by detaching the notional gearing assumption from the average of the sector. As described in paragraph 7.9 below, this also introduces inconsistency between how gearing is defined for the notional company and how it is measured for the listed companies.
- 7.7 Another example is the proposal to mandate a constant ‘WACC’ (actually a constant regulatory allowed return on capital) on the basis that this avoids ‘the need to argue about the choice of notional gearing’.<sup>31</sup> This proposal reveals a concerning disregard for the importance that a correctly calibrated notional gearing assumption plays in multiple aspects of the price control. Finally, using raw equity betas to compute the cost of equity for the sector would violate Modigliani-Miller proposition II, which states that the expected returns on a security depend on gearing.<sup>32</sup>
- 7.8 Overall, we consider that Modigliani-Miller proposition I has been incorrectly applied to criticise the PR19 determination of the regulatory allowed return on capital and that it should not be used to derive the WACC parameters. Instead, the approach followed by Ofwat and the CMA in PR19 should be followed. De-levering equity betas using observed gearing and re-levering using notional gearing in PR19 is consistent with standard corporate finance theory and practice and is an accepted part of UK regulation.
- 7.9 Moving on to the definition of debt and gearing, it is important that there is consistency between the definition of debt that is used in the de-levering of raw equity betas and the definition used to re-lever equity betas at notional gearing. Currently, regulators derive a notional gearing assumption based on the book value of debt and RAB. To ensure consistency, regulators must therefore de-lever using the book value of debt. Alternatively, Ofwat could de-lever raw equity betas based on the market value of debt.

<sup>29</sup> For example, see Oxera (2021), ‘Cost of equity report’, 1 March, section A1A.

<sup>30</sup> Mason, R. and Wright, S. (2021), ‘A report on financial resilience, gearing and price controls’, December, p. 33, para 5.12.

<sup>31</sup> Mason, R. and Wright, S. (2021), ‘A report on financial resilience, gearing and price controls’, December, p. 33, para 5.30.

<sup>32</sup> Modigliani, F. and Miller, M. (1963), ‘Corporate income taxes and the cost of capital: a correction’, *American Economic Review*.

This would require the market value of debt for the notional company to be estimated in order to re-lever.<sup>33</sup> However, this alternative approach requires additional data, assumptions and calculations (which in turn require a higher degree of transparency and disclosure), and may damage investor confidence by creating additional uncertainty.

7.10 The Indepen approach uses the ratio of the book value of net debt to enterprise value to de-lever observed betas, and re-levers using notional gearing divided by a market-to-asset ratio (MAR) estimate for the notional company of 1.183.<sup>34</sup> Assuming the future notional company has a MAR greater than one is equivalent to assuming there is significant outperformance expected for the notional company after the regulator has reset the price control. This is inconsistent with the objective of setting a ‘fair bet’ that was articulated by Ofgem in the RIIO-2 appeals and therefore is an internally inconsistent approach to re-levering betas.

7.11 Notwithstanding the inconsistency between the Indepen approach and any objective of setting a ‘fair bet’, implementing such as approach would introduce further uncertainty into the methodology for setting allowed returns and undermine investor confidence in the stability and predictability of the regime.

**8 Ofwat should use the CAPM as the primary source of evidence for allowed returns on equity, and, to the extent that cross-checks are considered, Ofwat should place weight on Oxera’s ARP-DRP analysis**

8.1 We note Ofwat’s intention to cross-check the cost of equity from the CAPM using MARs. The MARs cross-check was extensively debated at the CMA in the PR19 redetermination and RIIO-2 appeals. Ofwat mentions that the CMA RIIO-2 panel considered that MARs could be used to make inferences about the magnitude of allowed returns in the context of the RIIO-2 appeals. However, Ofwat omits to mention the CMA’s PR19 position on the matter, which was in a different context and was unsupportive:

‘On balance, we remain cautious about using market prices to determine the point estimate for the cost of equity or overall cost of capital, particularly in determining the suitability of a relatively minor adjustment (for example, 10 to 20bps on WACC).’<sup>35</sup>

8.2 We have already explained why we consider the CMA’s PR19 redetermination to be the most recent and relevant regulatory precedent for PR24 (section 2). Furthermore, we take issue with Ofwat’s oversimplification of possible drivers that explain MARs. Ofwat assumes there are only two factors that explain MARs in listed companies: outperformance, and allowed returns. It plans to ‘strip out’ the effects of outperformance from the market capitalisation of listed water companies and use the residual value to make inferences about allowed returns.<sup>36</sup> It follows from Ofwat’s logic that companies with similar outperformance—such as Severn Trent and United Utilities—should exhibit similar MARs. However, as noted by the CMA, the MAR was 18% and 2% at Severn Trent and United Utilities respectively once outperformance is accounted for. The CMA then states:

‘Does this analysis suggest that there is little no excess return based on the finding at United Utilities, or significant excess return based on Severn Trent? The variation between these two

<sup>33</sup> The existence of embedded debt and the decline in interest rates together indicate that the market value of debt for the notional company would be larger than the book value of debt.

<sup>34</sup> Mason, R. and Wright, S. (2021), ‘A report on financial resilience, gearing and price controls’, December, p. 8, para. 3.4.3.

<sup>35</sup> CMA (2021), ‘Ofwat price determinations, final report’, March, p. 1087, para. 9.1358.

<sup>36</sup> Ofwat (2021), ‘PR24 and beyond: Discussion paper on risk and return’, December, p. 21, Figure 4.1.



companies that are often categorised as being similar suggests to us that an average of just these two is unlikely to give a sufficiently clear picture of whether the cost of capital allowance is higher or lower than is required across all companies in the sector.’<sup>37</sup>

- 8.3 The CMA’s finding indicates the fundamental issues with MAR analysis. First, there are many unobserved factors that drive market value, and one cannot reasonably control for these to make any meaningful inferences about allowed returns. Second, the sample of listed water companies is not representative enough to draw any robust conclusions about the sector. Both Severn Trent and United Utilities were fast-tracked in PR19 and have lower financing costs than most companies in the sector.
- 8.4 Furthermore, Ofwat has not commented on any additional cross-checks that it plans to use in PR24. We consider that using MARs as a sole cross-check is insufficient. Ofwat should make use of Oxera’s ARP-DRP cross-check, which follows the logical principle that the cost of equity for a company with zero gearing must sit materially above the returns that its creditors receive in debt markets. It is thus a market-led measure of returns. The CMA in the RIIO-2 appeals and PR19 redetermination found that the ARP-DRP cross-check provides a useful perspective on the cost of equity.<sup>38</sup>
- 8.5 A key cross-check is whether Ofwat’s allowed returns are sufficient to ensure the company is financeable, in line with Ofwat’s primary duties.<sup>39</sup> We are concerned that Ofwat will redefine the capital structure (i.e. gearing and index-linked debt) of the company to ensure that it is financeable. There is no unique and identical optimal capital structure for water companies in England and Wales. Any reductions in gearing that are not based on actual observations in the sector may threaten the stability and predictability of the regulatory regime. Rather, Ofwat should maintain the same gearing as in PR19 (60%) and test financeability against the credit ratios required for a solid BBB+/Baa1 credit rating. Any changes to notional gearing should provide revenue allowances for the significant costs of switching to a lower level of gearing, including the cost of issuing equity and repurchasing the appropriate amount of notional embedded debt.

**9 Addressing the risk of underinvestment ‘at source’ still requires Ofwat to explicitly aim up on the cost of equity**

- 9.1 Ofwat’s proposal for setting returns in PR24 and beyond is not to ‘aim up’ on the cost of equity, but to address parameter uncertainty ‘at source’.<sup>40</sup> We understand this to mean creating a package of TOTEX and outcome incentives that is broadly symmetrical. However, this does not eliminate the core reason why aiming up is in the interest of customers.
- 9.2 It is widely recognised, including by the CMA, that allowed returns under the CAPM are calculated with uncertainty.<sup>41</sup> This means that only estimates above the mid-point of the range result in a cost of equity that addresses the inherent parameter uncertainty of the CAPM and the asymmetric consequences for customers of over- and underestimation.

<sup>37</sup> CMA (2021), ‘Ofwat price determinations, final report’, March, p. 1087, para. 9.1358.

<sup>38</sup> CMA (2021), ‘RIIO-2 Energy License Modification Appeals: final determination, volume 2A, joined grounds, cost of equity’, 28 October, p. 229, para. 5.692a; and CMA (2021), ‘Ofwat price determinations, final report’, March, p. 1087, para. 9.1386.

<sup>39</sup> Ofwat’s duties, <https://www.ofwat.gov.uk/about-us/our-duties/>

<sup>40</sup> Ofwat (2021), ‘PR24 and beyond: Discussion paper on risk and return’, December, p. 22.

<sup>41</sup> CMA (2021), ‘Ofwat price determinations, final report’, March, p. 1057, para. 9.1238.

- 9.3 The costs to customers of underestimation of the cost of equity are underinvestment and delays to investment. These are significant costs. For example, National Grid Electricity System Operator has estimated that a one-year delay on the Eastern HVDC link in the electricity transmission sector would cost consumers £665 million in constraint payments.<sup>42</sup> Furthermore, in relation to adaptation policies to deal with a changing climate, the UK Climate Change Risk Assessment notes that there are large net economic benefits today from reducing the costs of climate extremes, and the potential for being committed to large future impacts if action is not taken sooner (which is particularly the case for infrastructure).<sup>43</sup>
- 9.4 We are concerned that Ofwat may seek to use company licence obligations to force companies to make the necessary investments, even when doing so would be unprofitable. This contradicts the principle of incentivising companies to identify and make efficient investment decisions. This affects both companies (which earn returns lower than their cost of capital, which is not sustainable in the long term) and customers (who receive a service based on investments chosen by the regulator rather than those identified and prioritised by companies). The CMA describes this in the context of the PR19 redetermination:
- ‘expectations of insufficient investment returns based on the current cost of capital may discourage companies from identifying and proposing otherwise desirable investment projects. If overall water asset health deteriorates as a result, this may lead to higher required investment (and so higher investor returns) in future periods. In this way, the current cost of capital can have a direct impact on the level of future investment and the future costs to customers.’<sup>44</sup>
- 9.5 There are therefore material risks to society when allowed returns are set ‘too low’. Ofwat’s intention to account for parameter uncertainty at source does not dispel these risks. On the contrary, it is clear that an explicit adjustment to allowed returns is required to maintain investment incentives. This would be in line with long-standing regulatory precedent in the UK. In line with these principles and the growing evidence base on the costs of underinvestment, we recommend that Ofwat adopts the position that aiming up on allowed returns in PR24 is in the interest of customers.

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<sup>42</sup> Ofgem (2021), ‘Eastern HVDC – Consultation on the project’s Initial Needs Case and initial thinking on its suitability for competition’, 12 May, para. 3.18.

<sup>43</sup> HM Government (2022), ‘UK Climate Change Risk Assessment 2022’, 17 January, p. 9.

<sup>44</sup> CMA (2021), ‘Ofwat price determinations, final report’, March, p. 1066, para. 9.1273.