UKRN WACC consultation

UUW response to UKRN guidance for regulators on the methodology for setting the cost of capital

November 2022

United Utilities

Water for the North West

Overall response

We welcome the opportunity to respond to the UKRN consultation ‘UKRN guidance for regulators on the methodology for setting the cost of capital – consultation’ (the ‘UKRN consultation’).

Overall we are concerned that the proposals within the UKRN consultation have been set with a presumption that ‘lower for longer’ market conditions will endure, with many of the detailed proposals being based on methodologies deemed ‘not wrong’ by the CMA as opposed to arguably more representative methodologies used by the CMA in full determinations, with a result that the selected methodologies appear to target a downward bias in the allowed return as opposed to a balanced update for changes in market conditions.

In our view, recent data provides a strong indication that market conditions are changing. We believe that the UKRN’s guidance should be amended to adjust methodologies that appear to target downward bias in the allowed return and as a result ensure that the proposals are capable of applying to a wider range of market conditions.

If the methodology for setting the allowed return continues to be based on the presumption of a low interest rate environment from the recent past, there is a risk that the allowed return will be set too low in upcoming price controls, leading to a risk of capital rationing (or even capital exit) and a consequent risk of under investment and/or increased cost to customers. This risk may materialise at a key time when utilities are being asked to play a pivotal role in the delivery of net-zero and management of climate change.

Our response is split into two sections, in the first section we examine how past regulatory decisions appear to have been influenced by ‘lower for longer’ market conditions that now appear to be over and the risks that a continuation of this mind-set may present and in the second section we respond to some of the specific recommendations from the UKRN consultation.

Contents

1. How market conditions appear to have influenced past regulatory decisions

In this section we:

- re-examine how regulatory decisions in the past ten years on allowed equity returns appear to have been driven (implicitly and explicitly) by low and declining interest rates and the perception that an era of cheap money will persist;
- highlight the scale and speed of recent changes in capital markets;
- set out why, as a result of these changes, the recent trend of setting an ever decreasing allowed return may no longer be appropriate and could likely lead to underfunding of regulated utilities and/or increased cost to customers;
- Recommend steps that should be considered in order to mitigate investment risks since there is strong indication that the period of low interest rates is over, including:
  - respecting the long-term average of real TMR from historic data, without resorting to various methods that appear to supress the value; and
  - respecting the long-standing regulatory practice of aiming up in the face of uncertainty in cost of equity estimation.

1.1 A presumption of a continued 'lower for longer' environment appears to have influenced recent regulatory decisions including the UKRN recommendations

When setting the allowed equity returns UK regulators have, since the seminal paper from Smithers & co. (2003), preferred a methodology that relied on the Capital Asset Pricing Model (CAPM) with long-term estimates of the relevant parameters. In particular, this methodology has traditionally relied on a very long-term estimate of total equity market return (TMR).

However, despite this stated long-run based principle, in recent years where interest rates have stayed at historically low levels, regulatory decisions in the UK on TMR appear to have departed from this long-run principle, gradually nudging allowed equity returns lower. This shift down has arisen despite convincing data evidence to suggest that the long-term total equity market return has remained relatively stable. This is shown in Table 1 below.

Table 1 Regulatory decisions in the UK on total equity market return since 2012

Date	Regulator	Control	Decision name	TMR decisions (RPI-real)[1]
12/3/2012	Ofgem	GD1/T1	Ofgem, GD1/T1	**7.25%**
2/3/2014	Ofgem	ED1	Ofgem, ED1	**6.50%**
3/3/2014	CMA	NIE RP5	CMA, NIE RP5	**6.50%**
12/1/2014	Ofwat	PR14	Ofwat, PR14	**6.75%**
10/1/2015	CMA	PR14	CMA, PR14	**6.50%**
12/2/2019	Ofwat	PR19	Ofwat, PR19	**5.47%**
12/1/2020	Ofgem	GD2/T2	Ofgem, GD2/T2	**5.64%**
3/1/2021	CMA	PR19	CMA, PR19	**5.85%**

[1] Decision for Ofgem GD2/T2 is converted from 6.5% CPI-real using inflation wedge.

For reference, the long-term equity returns in the UK according to the Credit Suisse Global Investment Returns Yearbook (also referred to as the DMS yearbook) has fluctuated in a range between 7.2% and 7.3%, in inflation adjusted real terms.

In 2012 at RIIO-GD1 and T1 Ofgem estimated the TMR to be 7.25%, close to the level found in the authoritative DMS data series. From then on, a series of downward movements on the decision on TMR have been put in place by various regulators. This started with then Competition Commission at the NIE RP5 price control redetermination, where the TMR was adjusted down from 7.0%, as per the previous price control for Bristol Water 2010, to 6.5%. Then Ofgem and Ofwat followed suite and lowered their estimates for the TMR for the following price controls to similar levels.

As the low interest rate environment persisted in the latter part of the last decade, UK regulators continued to lower the TMR estimate, in particular citing the discussion of the historic inflation series used to deflate the long-run nominal equity return series. Instead of drawing directly on the real equity returns published by DMS, UK regulators shifted focus onto the nominal series from DMS combined with historic inflation series using less reliable back-cast inflation figures found in academic studies rather than statistic authorities. This lead to a direct lowering of the real TMR estimate. Ofgem and Ofwat both estimated the TMR to be roughly 5.5% in RPI-real terms for PR19 and RIIO GD2/T2 decisions.

Without reopening the detailed debate on which inflation series are more appropriate, it has appeared to the companies and the investment community that in reaching recent decisions on the TMR, the UK regulators may have given more weight to the low interest rate environment in the capital market than the actual long-term data on the equity returns.

Recommendations put forward in the UKRN consultation are still broadly in line with this. Indeed, we are concerned that the historic ex ante approach can potentially bias down the long-term estimates as it is based on a belief that past events are not likely to be repeated and therefore taking out a significant proportion of realised return in the history.

However, it is now the right time to revisit this strategy of aiming to interpret the long-term evidence through a short-term lens of ‘lower for longer’ interest rates. As we detail below, we are no longer in an environment where short-term liquidity conditions are more favourable than historic average, and therefore regulatory decisions that appear to aim to drive down the estimate from long-term averages would not only fail the long term test but also fail the short-term test from the market.

1.2 The market is telling us ‘lower for longer’ may be over

Recent changes in capital markets have had profound impact on both the current and also the expected future interest rate levels. These changes have come at a high speed and the movements are significant. It serves as a reminder that the prevailing market conditions should not be taken for granted and it would be wrong to deviate from good long-term evidence based on a belief that the short-term market conditions may continue indefinitely. Figure 1 below shows the change in the index-linked gilt (ILG) yield.

Figure 1 Real index-linked gilt yields (RPI-stripped) since 2010

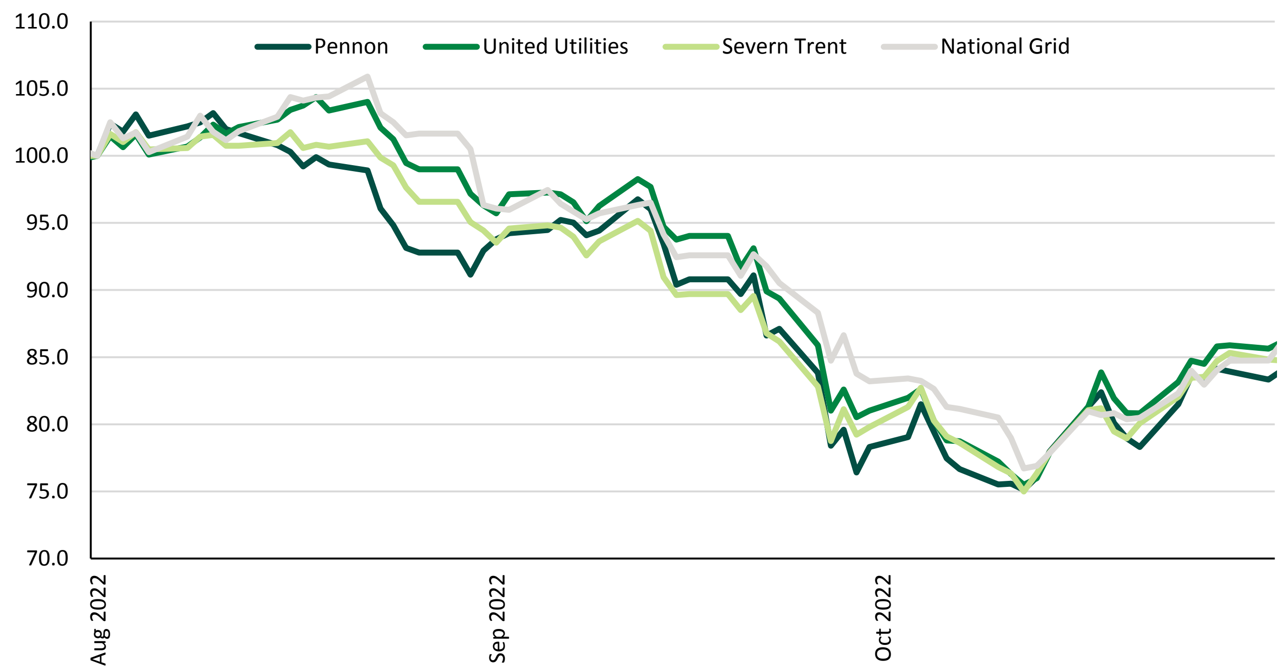
Yields on ILGs have now returned to levels not seen since 2010/11, before the 'lower for longer' era and this change all happened within a few months. There are many and diverse causes of this increase: the inflation pressure brought on by the post-Covid disruptions in the global supply chain, exacerbated by the war in Ukraine, and then reactions to the previous government's mini-budget. All of these factors have contributed to successive major shocks to the capital market.

The new government has now brought a mild reprieve to the market, but markets remain volatile and the major pressures on inflation (and therefore the need to increase interest rates) will likely persist into the medium future. The world's major economies, including the UK, have pivoted into a quantitative tightening cycle as opposed to the quantitative easing cycle since the financial market crash. Both the US and the UK central banks are set to unwind their large balance sheets of government bonds, on top of the base rate hikes we have already seen. Without the guaranteed demand for the extra supply in the bond market, prolonged upward pressure on government bond yield can be expected. While there is some uncertainty about the precise longer term ramifications of this, the current market evidence does not support a view that rates will rapidly revert back to the low levels seen over the past decade.

For the avoidance of doubt, we are not advocating a shift to the short-term market data to estimate the market cost of equity. The key issue here is not how enduring this new high interest rate environment may turn out to be. It is rather the fact that capital market conditions can and do reverse, and (in this case) within a short space of time. It would be wrong for regulators to remain as comfortable with an underestimation of allowed equity returns as they were when short-term market conditions were favourable. Future conditions are likely to be different from those that we may have been accustomed to in the past. It could be significantly detrimental to the utility sectors if a lower point estimate was being pursued in the face of the long-term evidence for the equity returns.

Regulators have referenced the high market valuation of UK utility companies (measured by the Market-Asset Ratio) as evidence that the price control package was possibly too generous, since recently investors have seemed to be paying more than the RCV to buy the assets of regulated utilities. We have argued that this type of market valuation based metric was not reliable, is materially affected by other factors (e.g. finance/totex/ODI outperformance) with the impact of cost of equity being very difficult to isolate, and markets are subject to sudden reversal. Key policy decisions on critical infrastructure should not be based on such potentially ephemeral evidence. Figure 2 below shows how the risk of rapid reversal is already unfolding.

Figure 2 Stock prices for listed utility companies since August 2022 (01 Aug 2022 =100)



We are concerned that the cost of equity values used in recent regulatory determinations were based on an assumption of ultra-low rates, which is now reversing. The UKRN consultation appears to continue with the same approaches taken in recent regulatory decisions on allowed equity returns, with the risk that future equity allowances may be mis-calibrated.

1.3 As a result of these changes, the position adopted on allowed equity returns in the UKRN consultation may no longer be appropriate

The current market dynamics indicate that recently allowed equity returns are now close to the market cost of new debt. This is in part caused by the methods regulators have taken to determine their recent estimates of TMR, which as we set out above have been amended in order to accommodate "current market conditions" during an era of cheap money, which appears to have come to an end.

As an example, the allowed equity return was set at 4.18% at the PR19 determination. In contrast, the cost of iBoxx Utilities index corporate bond yield has recently breached the 7% nominal threshold, and is currently trading at around 6% (as of 31 October). Given these are long-term bonds, adjusting for long-term CPI inflation forecast, the cost is on par with the PR19 allowed return on equity.

Equity holders bear far more risk than debt holders and therefore require a higher return. The recent allowed equity return will likely fail to attract any meaningful amount of equity capital, given that it is very similar to the readily observable cost of new debt.

1.4 Regulators should take action to mitigate investment risks

There are a number of actions regulators should take in regard to allowed equity returns to ensure that future price controls deliver allowed returns that are sufficient to attract the needed large scale investment into:

- Set a TMR estimate above 7% CPI real, based on an unbiased assessment of historic data on long run real equity returns in the UK, including updating back-cast inflation figures.
- Take account of the compelling evidence that there is a convenience premium on government debts that should be accounted for when estimating RFR;
- Aim up, to reflect the compelling public policy case to do so.

2. Response to specific recommendations from the UKRN consultation

In this section, we respond to some of the specific recommendations from the UKRN consultation. We note that many of the recommendations conform to the conventional methodology adopted by regulators that are well established and understood.

We consider that most of the high level recommendations are broadly reasonable but some detailed proposals in the body of the document are concerning, such as:

- Methodologies that appear to continue a downward bias on the estimation of allowed returns as set out in the section above; and
- approaches that are often based on CMA 'not wrong' assessment from the RIIO GT2/T2 appeals rather than the CMA PR19 full redetermination methodologies which should be considered more representative of the CMA's actual preferred methodologies.

Below we address the specific recommendations.

Recommendation 1 - Notional company: Regulators should continue to estimate the allowed rate of return in price controls based on the weighted average cost of capital for a notionally financed firm within their sector.

- We broadly agree with this statement, but note that regulators also need to consider the risks present in assuming how the notional company is structured. In particular:
  - if the notional company is based on a publicly listed company with a RCV gearing of around 60%, then the financing assumptions and financeability assessment need to be based on the reality of such a structure (e.g. steady and adequate dividend pay-out regardless of short-term performance, extra cost of raising equity from the public market, and so on);
  - if the regulator wants to assume the flexibility of equity financing in the private equity model, then the notional structure would need to reflect the reality of such a structure (e.g. typically higher gearing level and higher dividend levels on average although they can be less steady.); and
  - regulators should avoid selecting mutually exclusive sets of characteristics from differing models for its notional company.

Recommendation 2 – CAPM: Since the cost of equity is not directly observable, it must be estimated using a widely accepted method. Regulators should continue to use the capital asset pricing model (CAPM) as their primary approach for estimating the cost of equity.

- We agree with this recommendation.

Recommendation 3 – Risk-free rate: To estimate the real risk-free rate (RFR) within the CAPM, regulators should use recent yields on the index-linked gilts, with a maturity which matches the assumed investment horizon for their sector.

- We agree that ILGs are an appropriate reference point for establishing a base value, but regulators need to consider academic evidence that suggests if applied, without adjustment, ILGs could understate the risk-free rate. Therefore there is need to consider the convenience premium embedded in the ILG yield or other cross check evidence such as AAA bond yields.
- There are also reasons to be concerned about SONIA swaps as a cross-check on the risk-free rate, see Oxera's report 'RFR methodology for PR24: Response to Ofwat PR24 consultation'[2] prepared for a group of water companies on the risk-free rate for more detailed discussion on these concerns.

[2] https://www.ofwat.gov.uk/wp-content/uploads/2022/08/NWG_Risk_Free_Rate_Oxera.pdf

Recommendation 4 – Equity risk premium: Regulators should estimate the equity risk premium (ERP) within the CAPM as the difference between the total market return (TMR) and the risk-free rate (RFR). We recommend that the TMR should be primarily based on historical ex post and historical ex ante evidence.

- As discussed in section 1 above, the decline of TMR decisions over the past decade reflected regulators' consideration of the low interest rate environment, which is no longer appropriate. We agree with the use of historic ex post average, but urge regulators to stop using various ways to nudge the number down. The historic real equity return in the UK according to DMS has always been above 7%. Regulatory decisions going forward should include this reliable source of evidence.
- We raise concerns over historical ex-ante proposals given their subjectivity, and ongoing debate in this area. DMS is an excellent source for data on historic ex post returns, but their ex ante approach is just one view on how history should be interpreted and contains very strong assumptions and judgement. We disagree with proposals to focus ranges on the point where ex-post and ex-ante data intersect.
- We agree CPIH estimated data should be a primary source for deflating returns.

Recommendation 5 – Equity beta: Regulators should estimate equity beta for the notional company using comparable listed companies and standard regression techniques (i.e. ordinary least squares). Where the listed comparator has different gearing to the notional company, regulators should continue to de-lever and re-lever the raw equity beta.

- We broadly agree on the principle of the beta estimation using OLS, and de-gear and re-gear using the Harris-Pringle formula.
- We note Ofwat's proposals to change the re-levering and de-levering process in its PR24 draft methodology, which appear to be accommodated under the guidance for recommendation 5. We disagree with these proposals which is discussed in detail in the Frontier report 'Notional capital structure: An independent assessment of Ofwat's proposed approach for PR24'[3] on notional gearing prepared for a group of water companies.
- We also note that regulators should retain some discretion and judgement on the most appropriate estimation window to focus on, in order to avoid putting too much weight in periods where markets go through turbulence and betas are known to be artificially depressed.

Recommendation 6 – CAPM point estimate: The RFR, TMR and (re-levered) equity beta assumptions should be combined using the CAPM to produce a cost of equity range. The mid-point of the range should be used as the central estimate for the CAPM cost of equity.

- As discussed in section 1, we consider that it is appropriate for the regulators to aim up within the cost of equity range, in order to address the uncertainty inherent in these estimations and the symmetry in societal damage when setting the allowed equity return too high or too low.

Recommendation 7 – Cross-checks: Regulators should only deviate from the mid-point of the CAPM cost of equity range if there are strong reasons to do so.

- See our response above on recommendation 6. We do not agree that setting the allowed return at the mid-point of the CAPM range is prudent, instead regulators should aim up in the range.
- We also disagree that regulators should put cross checks (such as MAR) as the adjudicator for whether to deviate from the mid-point. Cross checks based on short-term market valuation of assets can and do fluctuate significantly, as discussed in section 1 above. Over reliance on this kind of evidence would exposure the regulatory regime to short-term volatility that is undesirable for the customers and the companies, for no real benefit. If the worst days of recent market conditions were used in these cross

[3] https://www.ofwat.gov.uk/wp-content/uploads/2022/08/NWG_Setting_Notional_Gearing.pdf

checks, this could indicate that the entire CAPM range is too low, which would not be credible. In our view, such cross checks based on short term conditions are limited in value.

Recommendation 8 – Cost of debt: Regulators should estimate an allowance for an efficient company under the notional financial structure, with actual debt costs suitably benchmarked against other market evidence.

- We agree that the allowance should be estimated for an efficient company under the notional structure. However, this efficient company must be internally consistently constructed and not a result of inconsistent selections of elements from various different models. Ofwat's proposal in the PR24 Draft Methodology, for example, suggested discounts to the market index by referring to different tenors of the debt without considering the associated high liquidity costs with shorter tenor. Another concern is the approach taken to estimate a real cost of debt without allowing the companies to use inflation swaps to actually achieve inflation-linked debt instruments.

Recommendation 9 – Gearing: The notional gearing assumption should reflect the balance of risks facing the regulated company and a wide range of benchmarks on gearing levels, not just that of the actual company (or companies) in question.

- We agree that the notional gearing assumption should reflect the balance of risks. However, we note that the latest Ofwat PR24 Draft Methodology proposed to lower the notional gearing without full justification on the balance of risks. The Frontier report 'Notional capital structure: An independent assessment of Ofwat's proposed approach for PR24'[3] prepared for a group of water companies on notional gearing sets out clearly the current notional gearing level of 60% is already at the bottom end of the range implied by market evidence and that we have seen no significant evidence to support a move below this.

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