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Cost of Capital
Conference Follow-up Note

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1. Introduction

Four over-arching themes emerged at the Cost of Capital Conference held on 4 May:

- a sense that regulators are going to be looking very carefully at the prevailing cost of equity capital, and specifically the question of whether it is reasonable to think that future returns on equity investments are going to be in line with historical numbers or whether equity returns have shifted to a permanently lower level in the aftermath of the global financial crisis;
- a view that it is now obvious and natural that regulators should shy away from trying to make fixed forecasts of interest rates, and should instead provide for a cost of debt allowance that adjusts within period as the interest rates paid by companies move up and down;
- a strong steer from the ONS that regulators should stop linking to RPI, and should instead reference CPI or, perhaps better still, CPIH, in price control decisions, including when calibrating the real cost of capital; and
- a question as to how regulators should respond if/when lower rates of return put pressure on interest cover ratios and credit ratings.

This short follow-up note seeks to highlight where the UK regulators have got to in their thinking on these matters. It also identifies a number of key events coming up during the next 12 months.

2. Expected Equity Market Returns

As was noted during the conference, there has been a clustering in recent regulatory decisions around a view that future equity market returns (i.e. the R_m term in the CAPM formula WACC = $R_f + \beta \cdot (R_m - R_f)$) are likely to be around 6.5% in real, RPI-stripped terms. Table 1 summarises the precise values that regulators have factored into recent determinations.

Table 1: Recent cost of capital calculations

Decision	Expected market return assumption	Year
CAA, Heathrow/Gatwick Airports	6.25%	2014
Competition Commission, NIE	6.5%	2014
Ofgem, RIIO-ED1	6.5%	2014
Ofwat, PR14	6.75%	2014
CMA, Bristol Water	6.5%	2015
Ofcom, BT Openreach	6.1%	2016
Utility Regulator, GD17	6.5%	2016

At the time of writing, no regulator has been willing to break from the backward-looking, historical benchmarking that the Competition Commission set out in its 2013/14 inquiry into Northern Ireland Electricity's (NIE's) price control arrangements. However, there have been signs in recent months that the regulators are starting to ask whether some sort of rethink is needed.

Most notably, the Northern Ireland Utility Regulator has questioned the 6.5% ‘norm’ in its ongoing review of NIE’s new price caps. In its draft determination document, the regulator states that it has sought guidance in this area from the UK Regulation Network’s (UKRN’s) cost of capital working group, as part of the new process in which UKRN members peer review each others’ cost of capital analysis.[1]

The Utility Regulator’s final determination for NIE is scheduled to be published in June 2017, and the UKRN’s advice will be published alongside this decision. Ofwat has indicated that it will also put out some high-level thoughts on cost of capital in the month of July as part of its PR19 methodology consultation, before firming up on an initial range for the PR19 cost of capital in December 2017.

As an outsider looking on, it feels like these events have the potential to shape the cost of capital landscape across all of the regulated sectors.

3. Cost of Debt Adjustment

Until recently, Ofgem was the only regulator to have any enthusiasm for cost of debt adjustment mechanisms.[2] Across its RIIO-GD1, RIIO-T1 and RIIO-ED1 price controls, Ofgem has provided for annual adjustments to the cost of capital, and hence allowed revenues, in line with a formulaic reading of real market interest rates. The formulae are different for different companies, but Ofgem’s cost of debt allowances now all take the form:

> the simple average of the reported yields on the iBoxx non-financials 10+ maturity BBB corporate bond series and the iBoxx non-financials 10+ maturity A corporate bond series over a specified period of time
>
> less
>
> expected inflation, measured as the difference between the yields on conventional 10-year gilts and index-linked 10-year gilts, over the same time period

As per the discussion at the Conference, the tide appears to be turning away from fixed cost of debt allowances and towards adjustable allowances. This has led to several innovations around the Ofgem approach:

- Ofwat’s new regulatory framework for Tideway provides for a sharing of out- and under-performance on the cost of new borrowing if prevailing real interest rates, calculated using the iBoxx BBB 10+ year index less a gilt market reading of expected inflation, are more than 50 basis points above or below observed real interest rates in a base year, 2014/15;[3]
- following a critical report from the National Audit Office in 2015,[4] Ofwat has been consulting on a switch to an indexed cost of debt for all water and sewerage companies from 1 April 2020. The new indexation approach will apply to the cost of new borrowing only. Ofwat will be consulting on a specific formula as part of its July 2017 PR19

[1] Utility Regulator (2017), Northern Ireland Electricity Ltd transmission and distribution 6th price control (RP6) draft determination, chapter 12.
[2] There were references at the conference to the CMA “endorsing” indexation of the cost of debt during the 2015 RIIO-ED1 appeals. The CMA’s determination needs to be looked at within the legal framework for appeals within the energy sector. The specific question that the CMA had to answer in this appeal was whether Ofgem was right to use a ‘trombone’ cost of index in preference to a 10-year trailing average index, not whether Ofgem was right to use an indexed cost of debt per se.
[3] Bazalgette Tunnel Limited project licence.
[4] NAO (2015), The economic regulation of the water sector.

methodology consultation, but the indications are that the regulator is likely to reference the same basic iBoxx indices as Ofgem but drop the gilt market inflation term in favour of a measure of actual inflation; and

- in its recent price control work, the Northern Ireland Utility Regulator has developed a cost-/benefit-sharing mechanism which ties allowances for new borrowing to the prevailing values of relevant reference iBoxx indices of a matching maturity in the month in which a company takes on new debt. The adjustment mechanism applies to the nominal cost of debt only; the allowance for inflation is fixed at the outset of the price control.[5]

Looking across the different methodologies, one can observe different approaches to the segmentation of existing and new debt, the selection of reference iBoxx indices, the treatment of inflation, and sharing of out- and under-performance. The sense one gets is of a competition of ideas, which looks like it still has a way to run.

4. RPI vs CPI vs CPIH

Thinking in regulatory circles about inflation indexation is arguably at an even earlier stage of development. Table 2 summarises the state of play in the different regulated sectors

Table 2: RPI and CPI indexation across the regulated sectors

Regulator / sector	**Real rates of return currently calculated with reference to…**	**Proposals for change?**
CAA – airports	RPI	The CAA has said that it is looking at a possible switch to CPI ahead of the upcoming H7 review of Heathrow's price cap
CAA – NATS [1]	RPI	None
Northern Ireland Utility Regulator	RPI	None
Ofcom [1]	CPI	-
Ofgem	RPI	Ofgem has said that inflation indexation will be an issue for its RIIO2 reviews
Ofwat [2]	RPI	Ofwat will switch water companies' real rate of return to a 50:50 blend of an RPI- and either CPI- or CPIH-stripped cost of capital from 1 April 2020
ORR	RPI	None
Water Industry Commission for Scotland [1]	n/a	n/a

Notes: [1] Regulator indexes its price or revenue caps by reference to CPI inflation, [2] Ofwat is proposing to index revenue caps by reference to CPI or CPIH inflation from 1 April 2020.

The next big development will be Ofwat's decision in December 2017 about whether to reference CPI or CPIH in future water and sewerage company price controls.

[5] See, for example, Utility Regulator (2017), Northern Ireland Electricity Ltd transmission and distribution 6th price control (RP6) draft determination, annex H.

5. Financeability

Lower rates of return, whether driven purely by lower allowed costs of debt or also by lower allowed returns on equity, will weaken interest cover ratios and inevitably put pressure on credit ratings. At First Economics, we continually encounter the view that this will cause regulators to exercise a degree of caution at upcoming reviews and ultimately provide underpinning support to future cost of capital calculations.

Such assessments undoubtedly sit consistently with historical experience. But the Competition Commission / Competition & Markets Authority has pushed back on such thinking in a number of its recent price control inquiries[6] and the conversations that we have had recently with regulators suggest that this is starting to have an influence.

Looking ahead, it is worth watching the current Firmus Energy appeal to the CMA. In its latest price control decision for gas distribution companies, the Northern Ireland Utility Regulator identified that Firmus' interest cover would be tight against thresholds for a Baa/BBB rating. The regulator's response to this situation was to say that its cost of capital is consistent with a range of possible gearing levels and that if Firmus' rating comes under threat, Firmus should respond by reducing its indebtedness and increasing the proportion of its RAB and/or investment that is financed with equity capital. One of Firmus' grounds of appeal is that this line of argument is wrong, with Firmus asking the CMA to find that the regulator should have instead provided the business with increased revenues.[7]

Depending on the position that the CMA takes on this matter when its decision is released in July, we could either have a report that backs up to the view that financeability concerns will put a floor under future cost of capital calculations or a direct refutation of this point of view.

6. Concluding Thoughts

Taking the above themes together, the next 12 months look like being a critical period for investors in regulated companies.

In the water sector, Ofwat will be giving its initial take on the PR19 cost of capital, and all the indications suggest that companies would be wise to be factoring the possibility of a sub-2.5% rate of return (in real, RPI-stripped terms) into their modelling of post-2020 revenues.

The CAA will also shortly be putting out initial sighters for Heathrow's and NATS' costs of capital, which one might expect to align with Ofwat's thinking (albeit with a debate then to be had about how much additional risk there is in airport expansion and in NATS' asset-light business model). The CAA will also be grappling with cost of debt adjustment and inflation indexation at the same time.

The Ofgem-regulated energy networks are then in the strange position of not immediately facing a review thanks to their eight-year RIIO control periods, albeit knowing that the pronouncements made by the likes of Ofwat, the CAA and the CMA will very likely percolate straight through to the RIIO2 reviews, starting with RIIO-GD2 and RIIO-T2 from April 2021.

[6] See, for example, CC (2014), Northern Ireland Electricity Limited price determination, paragraph 17.100; and CMA (2015), Bristol Water plc, paragraphs 11.45 to 11.51.
[7] Firmus Energy (2017), Notice of appeal, Ground 4B, available at https://www.gov.uk/cma-cases/energy-licence-modification-appeal-firmus-energy.

The question for all companies is how they can influence regulators' thinking, including perhaps in sectors outside of their own.

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