July 2017

Key questions for RIIO-T2 and GD2

APPROACH TO THE COST OF DEBT

This is part of a series of discussion notes that are relevant for the next RIIO price controls.

Ofgem's introduction of a trailing average cost of debt index was an improvement over its previous approach of setting a fixed cost of debt with built-in headroom by removing forecasting risk. But network companies have still been able to bolster their returns by outperforming the index. What Ofgem does next will be a test of its ability to evolve while maintaining regulatory stability.

CONTEXT

One of the most significant changes introduced as part of the RIIO framework is that network companies allowed return on debt is now based on a bond market index. For RIIO-T1 and GD1, Ofgem used a 10-year trailing average of the iBoxx indices for Sterling-denominated non-financial bonds with credit ratings A or BBB and remaining maturity of at least 10 years (the average bond maturity in the index is around 20 years).

For Scottish Hydro-Electric Transmission Ltd (SHETL), which was expected to have very significant growth in its Regulatory Asset Value (RAV), Ofgem applied a weighted cost of debt index based on the growth rate of the RAV. This was intended to provide a better match between the cost of debt allowance and the debt financing costs that SHETL would incur.

For RIIO-ED1, Ofgem applied an index that extends ("trombone-like") by one year each year from a 10-year to a 20-year trailing average. The change in approach was based on an argument by a number of distribution network operators (DNOs) that the 10-year trailing average did not reflect the maturity profile of the debt they issue. Ofgem found that a 20-year trailing average was forecast to better align with forecasts of DNOs' actual costs of debt for the sector as a whole, improving financeability.[1]

CEPA, in advice to British Gas, argued that the change was likely to lead to windfall gains for DNOs in the form of higher cost of debt allowances. This, in turn, would blunt incentives for efficient financing and could lead to potential gaming of the regulator at the next review.[2]

Since then, following recommendations by CEPA, both Ofwat and the Civil Aviation Authority (CAA) consulted on proposals to implement a different form of indexation.[3] Both regulators are considering setting a fixed allowance of the cost of embedded debt, with the allowance for the cost of new debt being indexed to shorter-term movements in an index such as iBoxx.

One of CEPA's key recommendations is that, in setting the cost of debt allowance, greater weight should be placed on market debt costs from recent years. An unweighted trailing

---

[1] Ofgem, RIIO-ED1 Draft determinations for the slow-track electricity distribution companies, Financial issues, 30 July 2014

[2] CEPA, Response to the Ofgem RIIO ED1 draft determinations – financial issues, report for British Gas

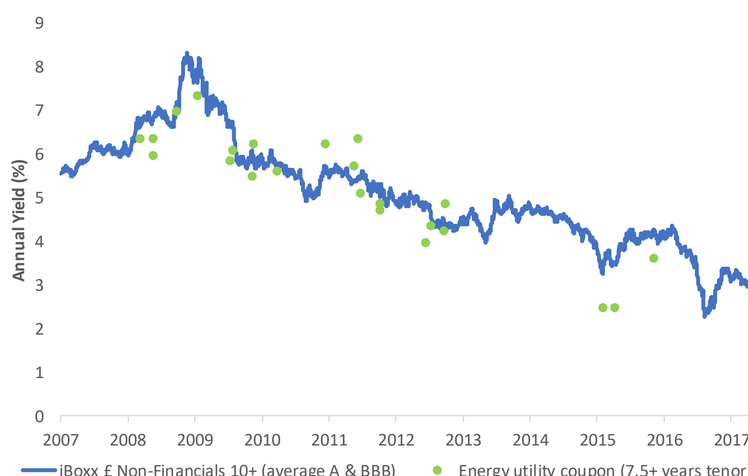
[3] CEPA, Alternative approaches to setting the cost of debt for PR19 and H7, final report for Ofwat & Civil Aviation Authority, August 2016

average, such as used by Ofgem, would overstate the cost of embedded debt in the allowance. This is because older debt is likely to represent a proportionately smaller share of regulated companies' debt, given asset base growth over the last ten-plus years. At the same time that asset bases have grown, the yield on new debt has fallen, making it more attractive for regulated companies to issue debt. For water companies, we recommended that the relative weights of embedded and new debt in the allowance should be based on an industry-wide figure, rather than having different weights for each company.

WHAT DOES IT MEAN FOR RIIO-T2 AND GD2?

In deciding on its approach for RIIO-T2 and GD2 Ofgem will be trying to meet a number of objectives:

- minimise the cost of debt funded by consumers;
- incentivise network companies to seek the most efficient debt financing;
- allow network companies to recover the efficient cost of financing their activities;
- enhance the legitimacy of its price control decisions by moving to indexation the Consumer Prices Index (CPI) – see our separate note on indexation; and
- maintain a consistent approach across its price control decisions.



As is often the case with regulatory decisions, these objectives may conflict somewhat with each other and Ofgem will have to use its judgement over which outcome to prioritise.

Ofgem may well decide to focus on network companies' ability to outperform the index. The chart on the right shows that gas distribution networks have historically been able to typically issue debt more cheaply than the benchmark iBoxx indices would suggest.[4]

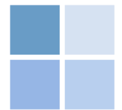
It is unclear how this desire to make sure that consumers are not paying excessively for outperformance of the index sits alongside a likely transition to a 20-year trailing average index in RIIO-T2 and GD2 to align the approaches used in all RIIO price controls. One possibility explored, but ultimately rejected, by Ofgem as part of RIIO-ED1 would be to make a downward adjustment to the index to account for outperformance.

An alternative explored by CEPA in our advice to Ofwat and the CAA is to introduce a sharing mechanism for outperformance of the index. This would mirror the sharing mechanism that applies to outperformance (or underperformance) of the totex allowance that Ofgem sets for each company's capital and operating costs.

The table on the next page outlines the range of potential changes to the approach to cost of debt indexation that Ofgem may consider for its next set of price controls. It highlights the key considerations for and against each option. These options could be implemented jointly or separately, depending on Ofgem's objectives.

[4] The chart does not account for issuance costs.

Type of change	Benchmark index used	Trailing average period	Deflation of nominal index	Company (or sector) index-weighting	Efficiency sharing mechanism
Objective	Incentivise efficient financing	Consistency across RIIO decisions	Enhance legitimacy of regulatory framework	Support financeability	Minimise the cost to consumers
How to implement?	Adjusting the index for "halo effect" or using a different index	Moving to 20-year trailing average either at once or gradually	Using breakeven inflation adjusted for RPI "formula effect" or using actual CPI or CPIH inflation	Using a weighted average index that reflects RAV growth rate	Introducing a sharing mechanism for the difference between the index and companies' actual debt costs
Case for making the change	Network companies' outperformance against the index means it may be too generous	Network companies typically issue debt of longer than 10 years maturity 10-year trailing average not consistent with average duration of bonds in the iBoxx 10+ indices	RPI has been de-listed as a national statistic owing to structural upward bias If Ofgem decides to move to using CPI or CPIH, it will need to apply a consistent approach to setting the WACC, including the cost of debt index	Network companies' debt portfolios do not follow simple average assumed in current index The allowance should reflect the greater share of companies' debt that has been issued in the low-cost environment of recent years	Allow consumers to benefit from companies' lower financing costs, while retaining the incentive for companies to seek cheaper finance than the regulator assumes
Case against making the change	The index does not capture all sources of company debt financing (e.g. short-term facilities), nor the cost of managing the various debt instruments	A longer index would retain the high market rates from the global financial crisis in the allowance for longer, even though network companies raised very little debt during this time	Unclear what the relationship is between nominal bond yields in the iBoxx index and investors' expectations of inflation as measured by CPI or CPIH	Introduces significantly more complexity into setting the allowed cost of debt	The index does not capture all sources of company debt financing and their costs Makes the regime more complex Potentially weakens the incentive for companies to outperform the index



July 2017

EFFECT ON DIFFERENT INDUSTRY PLAYERS

Network companies

- Direct impact on network companies' allowed revenue and on their ability to recover debt costs
- Impacts network companies' exposure to financing risk, and influences their hedging strategy

Suppliers

- Indexation has a direct (albeit small) impact on the volatility of network charges
- Potential impact on energy prices and, consequently, public pressure on suppliers

Ofgem

- Interactions with how the rest of the WACC is set, and with financeability
- Potential impact on energy prices and, consequently, public/political pressure on Ofgem
- Resourcing implications of implementing policy change

Consumers

- The approach to indexation has a direct impact on charges and charging volatility

KEY QUESTIONS

1. Should Ofgem do anything about company outperformance of the index?
2. How does Ofgem adjust the index for use of CPI or CPIH?
3. What are the financeability impacts of the potential uses of CPI and a 20-year index, and what transition is appropriate?

CONTACT US

Ian Alexander
Director

Ian is a regulatory economist with over 25 years' experience of supporting regulators and companies in price control reviews. He has worked extensively in the UK energy sector on both traditional and innovative regulatory issues.

Ian.Alexander@cepa.co.uk

Nick Hodges
Senior Consultant

Nick has worked extensively on the financial aspects of utility regulation, including the cost of capital and financeability. He managed CEPA's recent study into approaches to the cost of debt in the UK water and aviation sectors.

Nick.Hodges@cepa.co.uk

CEPA is an economics, finance, regulation and competition advisory firm with offices in London, UK and Sydney, Australia. Our staff and associates have extensive experience in developing and implementing regulatory frameworks in network and other regulated markets across the UK and other international jurisdictions. We combine intellectual rigour in applied regulatory economics with practical experience of advising a variety of stakeholders – regulators, regulated companies, suppliers and major consumers.

Call us: +44 (0)20 7269 0210 **Visit our website:** www.cepa.co.uk

Disclaimer: The views expressed are those of CEPA alone. CEPA accepts no liability for use of this report or any information contained therein by any third party. © All rights reserved by Cambridge Economic Policy Associates Ltd.