

Utility Regulation, the Regulatory Asset Base and the Cost of Capital

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Thank you to the Competition Commission for organising this very timely lecture on an important topic and for inviting me to respond to Dieter's lecture.

And thank you for Dieter for tonight's thought provoking lecture.

Peter has only given me ten minutes to respond – and given the breadth of Dieter's talk and the number of points he made my biggest challenge is to keep to my allotted time.

I am not sure – whether at the end of my comments and the discussion I will be eating humble pie – as Dieter suggests – I will leave it for you the audience to judge

Let's start on what we agree on. I do think there is a problem here that Dieter has identified. It has been lurking there for a number of years and if regulators are not already familiar with will – they soon will be.

But I do not agree with Dieter's proposed solution – and he knows this as we have debated it at some length!

So let me start with what I think the problem is – move on to some thoughts on how you might solve it.

I will then provide some specific comments to explain why I don't think Dieter's answer is the right one.

The problem does – as Dieter suggests - lie with the application of a "weighted average cost of capital" to a regulatory asset base. The key words here are **weighted average**.

Historically this has tended to be interpreted as a weighted average of the cost of debt and equity. But there is another way of looking at.

The WACC as set by UK utility regulators over the last 20 years can be thought of as the weighted average of cost of capital (comprising both debt and equity) for existing investments (or the RAB in Dieter's terms) and the cost of capital (comprising debt and equity) for new investments.

I think Dieter is correct when he says the risks associated with existing, sunk investments are lower than the risks of new investments. But I think he goes too far when he claims the risks of sunk investments (the RAB) are so low that they can be solely debt financed.

Why do the risks differ? New investments carry a variety of risks - some disallowance risk – although nowhere near as much as the companies protest, the risk of cost overruns and penalties for late delivery etc.

Existing investments carry the typically lower risk associated with prudent asset management and disaster (such as flooding and other natural phenomena that could damage existing assets)

And here in may lie a problem that Dieter has identified – the cost of capital necessary to remunerate existing assets will be below the cost of capital necessary to raise finance for new investments. Given the presence of a RAB – the regulator will rightly set a weighted average of the two reflecting the relative risks and the amount of new investment relative to the RAB. But it must then be the case that the marginal cost of capital (the cost of raising new finance) will be above the WACC set by the regulator.

And this problem may be more real at the moment than at any point since privatisation for two main reasons. First, many of the utilities quite rightly loaded their balance sheets with what, with the benefit of hindsight – we now know to be very cheap debt – during an unsustainable credit boom. And second, because the cost of raising new debt and new equity are currently very high because of the current turmoil in financial markets.

So a regulator setting a cost of capital today will rightly be cautious and will not set the WACC at the marginal cost of capital as this would lead to a huge transfer of wealth from customers to shareholders

So assuming regulators continue to set a WACC in the usual way – as an average of the marginal and historic costs - the company will still be able to finance its functions and to raise equity and debt finance

But given this potential gap between the marginal and weighted average cost of capital the company may be tempted to boost its performance by simply delaying capital expenditure and the need to raise more expensive finance to do so.

This may be efficient and in customers interests.

But it may also lead to lower network performance and/or simply raise the returns to shareholders at customers' expense, who will then have to fund part of this capex for the second time during the next price control.

So if this is the problem – does Dieter offer the solution by splitting the cost of capital?

I don't think so – but before explaining why let me offer my potential solution.

That is to focus on clear, defined output measures which, it won't surprise you to know, we at Ofgem are vigorously pursuing in all of our price control settlements. And, to make sure that I give credit where it is due, this was a solution that was identified by the Competition Commission as part of a capex monitoring regime – in its previous guise as the MMC – in the 1997 British Gas inquiry.

Under this approach, you set the cost of capital as a weighted average in the way I suggested, but specify clearly the output measures. It is vital to stress they are output measures (such as network performance and capacity) and not input measures (such as miles of pipe built, number of transformers installed) you expect the company to deliver. And then vary revenue allowances for outperformance or underperformance relative to these output measures. This should remove the incentive on companies to consider boosting their financial performance by delaying capital investment other than when it is genuinely efficient and in customers' interests.

So let's now turn to Dieter's proposals. I think they fail on an over-simplification of the nature of the RAB and the nature of how network businesses are actually run.

First, the risk to the RAB is not entirely regulatory – or political – and isn't in my view very significant. In practice I am not aware – although I bow to Dieter's much greater knowledge of other sectors – of any significant RAB disallowances in the 20 years since privatisation by regulators.

And anyway, in the UK we have solved this problem – through institutional innovation and the rule of law.

Regulatory risk is minimised as any decision to disallow capex from the RAB – or to expropriate it by a regulator is subject to a full merits appeal by the august institution we are now seated in. And politicians are

answerable to the Courts and I think any attempt to expropriate could be viewed as irrational and unreasonable by a high court judge.

But the more fundamental issue is that there are real risks associated with the RAB that are not regulatory or political – The RAB is a proxy for the undepreciated capital assets of the business. These comprise of – for most networks – a number of complicated long lived assets in energy: wires, pipes, transformers, switchgear and compressors.

These assets need to be maintained and companies quite rightly face the risk that if they don't do this properly – assets may fail before the end of their assumed lives.

And even if they do manage them effectively – in an uncertain world they may still fail as asset lives are not certain and companies constantly learn about how to steward assets and improve and extend their working lives.

We want companies to manage these risks on customers' behalf and always consider the relative costs of benefits of asset replacement versus increased maintenance and operating costs and to strive to find new ways of reducing the total cost of providing network services through an appropriate mix of capex and opex to steward their existing assets. And managing these risks cannot be properly rewarded at the cost of debt.

More importantly, the separation of the RAB from capex and opex has proved, in reality, illusory and more importantly something we would not want to encourage. The differential treatment that Dieter suggests would lead to a return to the bad old days – which we are still working hard to completely remove – where companies, their advisors and accountants sought to arbitrage between treatment of different cost categories and to place them in whichever category gave them the more favourable regulatory treatment. In Dieter's model, I think you would see a huge drive from companies to replace assets faster – as they had protection on recovery whatever their actual working life – and a drive for higher maintenance and capital expenditure to deliver EBIT growth

There are issues to solve here – Ofgem has played with regulatory depreciation as means of easing financing concerns and used pay as you go for large repx programmes – and our RPI-X@20 project is looking at these and many more issues – are there better ways?

As ever there is an awful lot more I would have liked to have had time to discuss in Dieter's paper – the use of index linked debt, the role of the special administrator, greater use of competition in the provision of opex

and capex, which I haven't had time to address so that will have to wait for another occasion.

And I want to end with a practical analogy. I know that Dieter's concerns are driven by a fear that regulators current approach to the cost of capital will lead to a flight from equity and either mutualisation or nationalisation. And I think we both agree on the importance of equity, capital markets and the discipline and incentives they create on management. But I think this concern is not real, or at least not so in the energy sector, which I know best. Yes it is true that we saw a number of energy network companies sold and we saw very highly geared structures – relative to that assumed in the price control settlement – put in place.

And yes at the time we – and consumer groups – could rightly ask whether we had seen a large transfer of value to shareholders from customers and whether we should change our approach.

But was the simple explanation that this was the result of the most extraordinary and sustained credit boom in history and the underpricing of risk and debt that we are now seeing unwind all around us?

And will we see a return to more conservatively financed network companies as risk is re-assessed and re-priced. And if the long term trend was for a flight from equity – why are two our energy networks still owned by Warren Buffet – the ultimate long term equity investor. Who refused to buy at the top of the market or to finance the networks he owned in this way, saying it would all end in tears.

But he remains clear that he would be willing purchase more energy networks in the UK at the right price if – as he predicted – some of these highly geared structures start to unravel.

But that is a debating point – and we should remember that Mr Buffet isn't always right having recently seen a 30% fall in Berkshire Hathaway's value over the last twelve months. But on this one I think he is correct.

So I will conclude by thanking Peter and the Commission and Dieter once again – and look forward to a lively discussion – that I think will run well beyond the end of tonight's lecture.