RPI conference

Tuesday 25 September 2018

Cathryn Ross

What can be learned from comparisons of different information processing systems/structures adopted in different economic contexts?

Reflections on similarities and differences between information discovery in communications and water

Given that I'm going to spend quite a bit of time on the differences between the communications sector and the water sector, I wanted to start with a similarity – both these sectors are subject to economic regulation. No prizes for that.

Both of these sectors play a key role in our economy and society. Both of these sectors have a history of monopoly and market power. And in sectors like this, economic regulation exists to align the interests of companies and their investors with those of customers and society. That is as true in communications as it is in water. But in terms of how they achieve that alignment, the two sectors have taken very different paths since privatisation.

In telecoms the primary focus of the regulator has been on the promotion of competition. This has taken different forms over time – from the original expectation of facilities competition with the duopoly of British Telecom and Mercury, through the shift to services based competition based on regulated wholesale access to the copper network, more recently back to a focus on infrastructure competition especially in relation to fibre final miles. But throughout, the focus has been on creating the conditions for rivalry, which has been seen as the best mechanism to drive down prices, drive up service quality, and incentivise investment and innovation. Largely, the regime has been very successful in doing this. In the last ten years regulation has been focussed very much on fixed wholesale access with a view to promoting competition downstream, rather than on regulating retail prices in any form.

In water the focus was very much on regulating the end-to-end vertically integrated monopoly. The primary goal of regulation – indeed the problem that privatisation was trying to solve, was to enable and incentivise a massive investment programme, chiefly driven by the need for improvements in the environment and water quality. The absence of competition risk, and stable, predictable regulation was attractive to investors. In this sense, the regime achieved its initial goal – with more than £150bn of privately financed investment having been put into the sector in the last 30 years. But it is worth unpacking the nature of the regime a little further.

In the context of monopoly regulation, the regime in water placed the regulator at the heart of decision making in the sector. If you asked water companies in 2009 – and we did – who their customer was they would have said 'the regulator'. And if you'd asked them why – and again, we did – they would have said 'because the regulator funds us'. During the 2009 price review, the regulator literally scrutinised the companies' business plans line by line, substituting its judgement on costs for those of the companies. I remember spreadsheets running into 10,000s of lines.

Notwithstanding the fact that the regulator's principal source of information was the business plans, their quality was poor. There was no incentive on companies to do better, and arguably – given that the regulator's adjustments were made to the companies' plans, the companies had a strong incentive *not* to put their best foot forward as well padded plans, were more likely to produce a settlement that the company could live comfortably within. It was worth noting in particular that the regulatory regime – which quite logically, provided companies with a return equal to the WACC on the basis of their capital expenditure (where outputs had been delivered), but did not provide a return on opex – created a strong incentive on companies to favour capex solutions over opex.

One advantage Ofwat did have was the ability to make comparisons between water companies. And it was certainly true that – for a sector with so little head to head competition – there was a great deal of rivalry when it came to league tables. But with water companies – given the nature of their investors – primarily focussed on risk minimising rather than value maximising, the league tables were very successful in disincentivising companies from being below average. But were singularly ineffective in stimulating excellence – both in terms of service and efficiency.

For all these reasons, it had become quite clear by PR09 that diminishing returns to the regulatory model had set in. Ofwat's efficiency challenge in PR99 had represented £39 off the average bill, and by PR09 that efficiency challenge had fallen to just £11. By the time Ofwat had completed PR09 it was clear to most of us within the regulator that – with those diminishing returns to regulation, and especially with no apparent let up in the demand for investment from the sector – a new approach was needed, if bills were to remain affordable.

The primary problem Ofwat was trying to solve at that point was one of revealing and incentivising new frontiers in efficiency. PR14 saw a major change in approach. In particular:

- A focus on incentivising the delivery of outcomes – rather than outputs. This would improve allocative efficiency by focussing scarce resources on the things that customers (and society through legislative requirements) want. It would also free up scope for dynamic efficiencies, by enabling companies to deliver those outcomes in different ways, even if those different ways came to light during the control period.
- Ensure that outcomes were driven by customer engagement – reconnecting companies with their customers, and extracting the regulator from the middle of that relationship.
- Using financial procedural and reputational incentives to reward good business plans, which in turn improved the quality of the regulator's challenge through comparative regulation.
- A shift in the efficiency benchmark from average to upper quartile.
- Removing a lot of the 'notified items' to ensure that companies did not only bear risk that was wholly within their control, but risk that they were well placed to managed – creating incentives to manage it better.

Ofwat's PR19 methodology – which you will have heard about yesterday – built on these changes, pushing further in a similar direction, in particular by:

- Creating more high powered incentives for ambitious business plans – designed to reveal to the regulator what could be achieved over the next control period in terms of frontier efficiencies.
- Pushing further on improving allocative efficiency, by improving the basis for companies' setting of outcome targets, by turbo charging the customer challenge group process, by creating more comparative information to inform that challenge process, and by encouraging companies to improve the evidence base for their judgements on customer preferences using control trials and data from customer interactions.
- Creating greater incentives for productive efficiencies, in part by reducing the scope for financing cost outperformance, e.g. as a result of indexation of the cost of new debt.
- Making greater use of market mechanisms – creating a clear expectation that a good business plan would show evidence of the make or buy decisions a company had considered and why it had chosen the option it had. Ofwat has set a clear expectation that market mechanisms will be used in relation to water resource, sewage sludge, and for substantial network projects. And of course, we now have actual head to head competition in the business customer retail market in England.
- In terms of dynamic efficiency, Ofwat again rejected the idea of an innovation fund. In favour of the idea that a tough efficiency challenge, alongside the potential to make better use of markets, and clarity that a good business plan – with access to even more high powered incentives for outperformance – would be a better spur to innovation.

While PR14 felt like a huge shift in the regulatory regime, then I'd argue that PR19 will have a bigger impact. Why? Precisely because of its power in revealing information. Ofwat has tried consistently to inject markets – places where buyers meet sellers and where transactions take place – into the water value chain. The incentive to respond to the information those transactions reveal doesn't come from competition, but from regulation. It still relies heavily on the administrative process of price reviews, rather than spontaneous order. But I still think that it sets up a new dynamic in the sector, one that will be vey hard to retreat from.

In telecoms, as I said at the start, the regulator has largely relied on liberalisation of markets and encouragement of competition to reveal information and create the incentives to respond efficiently to that information.

But of course in regulated parts of the value chain – in particular wholesale access – the regulator does set service standards in the context of its charge controls. And coming into that process from water, it feels very regulator driven – rather than customer driven. Which is odd, given that Openreach's customers should be very able to be clear about the outcomes they want and are willing to pay for.

The situation would seem to lend itself even to a negotiated settlement approach, in the style of the CAA, rather than a water sector style customer engagement process. Maybe as the relationship between Openreach and its customers beds down, this is something we could aspire to? Ofcom seems open to it. If it was to work well, as the CAA found, Ofcom would need to be clear that the agreement reached by Openreach and CPs would be final – the prospect of further regulatory intervention just collapses the whole process back to one in which both customers and regulated company negotiate with the regulator. And it would also be desirable to maintain some incentive on Openreach to respond to changes in

customer demand in period, not just at review points (the more so if telecoms regulation is moving to 5 year periods). But the whole approach seems fruitful ground.

I also wouldn't want to finish without noting that, even where markets have been liberalised and where competition is effective, we shouldn't think we have 'solved' the information revelation problem, created the right incentives and rendered the regulator redundant. In competitive parts of the value chain, there remains the possibility that the information revealed by the process of competition about private costs and private benefits, about who will supply and consume at what price, does not reflect wider social costs and benefits. The information revealed by the market may need to be supplemented with information about these social costs and benefits. And how this is done matters immensely.

There are two clear examples of this.

The first concerns investment in 'full fibre' or 'gigabit connectivity'. In our liberalised competitive retail broadband market – where customer preferences can be directly observed – only two thirds of the 97% of premises in the UK that Openreach passes with superfast broadband (of 30Mbps) actually take it up. However, it is clear to government that what our economy and society needs is 'gigabit connectivity' and that we need to make that investment now – before there is a use case for that additional capacity that support any real cost recovery. The good thing in this case, is that government – in the DCMS review of Future Telecoms Infrastructure has been very clear that this is the outcome it wishes to see – it has set out a clear strategic vision that has democratic legitimacy. And we are expecting this to find its way into a strategic policy statement at some point. We're all waiting to see exactly how the public policy and regulatory regime squares the circle of who is going to pay for this investment ahead of need – especially when nobody thinks all of it will be delivered through competition. But we're expecting further Ofcom consultations this autumn and I'm sure we will get there.

The other example concerns distributional effects. While competition tends to benefit everyone, there is no doubt that it benefits some – generally those who engage with the market – more than others. Customers' behaviour in engaging with the market or not, reveals something about their preferences. If you were being rather purist about it, maybe ten years ago you might have argued that – putting vulnerable customers to one side - those who don't engage reveal that they have more valuable uses of their time than looking at price comparison websites and they are free to make that choice. But of course we understand more about human behaviour than that now, and there is no doubt that society's tolerance for differences in customer outcomes – especially in relation to products that are seen as both 'essential' and 'commodities' – is decreasing. If anything, this is less of an issue in telecoms than in some other sectors such as energy and financial services, perhaps because of the extent of product differentiation. But across all regulated sectors it is another example of where the competitive markets promoted and relied on by regulators are not giving us the full story, and where there is a need for someone – with genuine legitimacy – to add some other pieces to the puzzle and quite possibly confer their legitimacy on a regulatory intervention.

I started with a similarity between water and communications, and having talked a lot about differences, I want to finish with another similarity. And that is change.

You will have picked up from what I have said already that both water and telecoms regulatory regimes are going through periods of change. Change necessitated by changes in

the outcomes that customers and society expect from the sectors, and by changes in the underlying economics of the value chain – albeit for different reasons.

As in anything, if change is done well it creates a virtuous circle of asking questions, exploring answers, trying new things, learning what works and what doesn't and carrying that into the next cycle of change. For which revelation of information about the regulatory regime itself is critical, as is a culture of openness and one which values experimentation for the leaning it brings and not just its short term impact. It also works best in an atmosphere of co-creation – where there is a sense of common purpose and a willingness to share ideas, discuss and agree a way forward.

This, if anything, was one of the biggest shifts in the water sector in recent years. I know Ofwat and water companies are in the throes of PR19 right now, but the process by which the methodology was created, was genuinely one of co-creation. Telecoms, to me, feels some way off this. Perhaps the DCR, which seems to have been an incredibly adversarial process all round, is still a little too recent and raw? But if the water sector can go from – as Jonson puts it – 'collectively staring into the abyss' around the 'enable licence modification' issue in 2013, through PR14 and into the delivery at the end of last year of a co-created methodology for PR19, I'm sure telecoms can get there.