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UK Economic Regulation: A Stock Take
First Economics 10th Birthday Essay, by John Earwaker

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1. Introduction

This essay brings together thoughts that I have accumulated over ten years working for First Economics. During this time, I have been fortunate enough to sit with regulators' and companies' boards as they've made decisions, I've sat on the inside with Competition Commission panels as they've worked their way through inquiries, and I've been with investors as they've tried to make sense of what has been happening to the companies that they own. Importantly, this work hasn't been confined to any one sector, but has straddled the aviation, energy, post, telecoms, rail and water industries. It has also seen me work right down in the technical detail in some assignments – cost of capital assessments, efficiency analysis, incentive design, etc. – as well as operate at a more strategic level with other clients.

At a point when there has been more navel-gazing than usual over the UK regulatory model, it seemed like now might be the right time to write down a collection of observations that have been gathering in my mind for some time. I do this with no specific agenda or bias. I offer these thoughts only to contribute a perspective into the debate that has started to develop about the future of regulation.

For the avoidance of doubt, the comments that follow are my own and should not be attributed to the organisations that some readers will have seen me sit alongside in recent months.

2. Overall Assessment

Anyone expecting this essay to be a highly critical assessment of economic regulation is going to be disappointed. I am very strongly of the view that the basic structures in the UK's regulated industries work well and produce good outcomes for consumers and for the economy.

I won't trot through the usual figures that others give about prices, costs, investment or service quality to support this viewpoint. Most people reading this will already be familiar with this literature.[1] Instead, I think it is more instructive to offer a reminder of what has happened when the government has opted not to strap eligible industries into a conventional regulatory framework. I'm thinking of:

- the London Underground PPP, which collapsed seven years into 30-year contracts;
- the franchising model that has been put in place for train operators, which has imposed millions of pounds of avoidable cost commuters and taxpayers; and
- the records of Scottish Water and NI Water when they were run as part of government, where it can be seen that customers needlessly suffered years respectively of poor performance before the WIC and the Utility Regulator were brought onto the scene.

The experiences that I have had working with these industries, as well as my experience in the conventional regulated sectors, makes it crystal clear to me that there is really no credible alternative to independent economic regulation.

[1] See, for example: https://www.ofgem.gov.uk/ofgem-publications/51985/performance-energy-networks-under-rpi-x-finalfinal.pdf; and http://www.ofwat.gov.uk/industryoverview/today/achieve.

I also have no hesitation in saying upfront that the current stewards of the different regulatory offices are making a pretty good fist of the job of regulating. It's very easy to get caught up in the minutiae of regulatory process and regulatory economics – and I will fall head-first into this trap in this essay – but I think it is pretty clear at a macro-level that all of the KPIs that I mentioned a moment ago are still moving in the right direction. I know that some people feel that progress could be faster. And I would agree that the brightness of the stars at different regulators have waxed and waned through personnel changes and other challenges. But overall, it is very hard to mount an argument that says that regulators are doing anything but bringing substantial benefit through their work.

3. Recent Noise

It is interesting, therefore, to see that the last two years have seen louder grumbles than normal about regulators' collective performance. This is, of course, partly a reflection of tough economic times and the pressures that many businesses and households have come under. It may also be that perceptions have been clouded by concerns about one sub-sector in particular, i.e. the ostensibly competitive parts of the energy sector. Yet, some of the grumbles also seem to be coming from investors, causing some in important positions to form the view that regulation might be becoming an inhibitor of investment and economic growth.

I am far from convinced that these concerns are warranted – at least at the moment. Nine times our of ten, the dissatisfaction that I encounter relates to fairly small issues rather than the foundations of economic regulation like the commitments embodied in RABs, the independence and fairness of the regulatory process, or the trust that people can place in the Competition and Markets Authority as the regulated sectors' appeal body. With these sound underpinnings, there shouldn't really be any great fears about the future.

It is, though, a cause for concern when unnecessary noise builds up around the regulatory decision-making process and starts to obscure the fundamentals. I have seen on numerous occasions how heightened emotions can distort companies' and investors' decisions, at least in the short term, leading to sub-optimal outcomes. The pressure that regulators feel when politicians start to notice the regulated sectors can also lead to odd reactions, often angering customers or companies still further.

It is well worth, therefore, reflecting on what is going right and what is going wrong in regulation at present so as to ascertain what can be done to usher regulated industries back into a period of calm and quiet. From my standpoint, recent noise has tended to be a consequence of one or more of the following things:

- poor engagement from regulators, as seen in –
    - personality clashes with individuals on the other side;
    - over-selling and excessive spin around decision-making;
    - surprise changes in process or a failure to keep to promised deadlines;
    - aloofness and high-handedness when confronted by stakeholders with push-back against proposals;

- companies and investors getting unnecessarily caught up on one point of detail and losing sight of the bigger picture; and/or
- companies and investors being too slow to recognise that circumstances around them have changed.

Three examples may help to illustrate these points.

The first is the fierce row that broke out between Ofwat and water companies in 2012 over proposals from the regulator to modify licences. Watching from the sidelines, it was obvious that this was an argument about nothing: Ofwat wasn't able to explain why it needed to make changes to licences at that specific point in time; and companies were unable to articulate what was so objectionable about a set of modifications that did nothing more than align the sector with other regulated industries. The truth of the matter was that there had been a gradual breakdown in the regulator-company relationship and the licence modification was a flashpoint that set alight a lot of accumulated ill-will.

The second example is the decision that Northern Ireland Electricity made to take the NI Utility Regulator to the Competition Commission (CC). The disputed price control never looked like it was unduly harsh on the company, but it seemed that the company's judgment was so clouded by the fights that had occurred during the price review and by unresolved grievances over specific pieces in the allowed revenue calculation that the board opted for a reference anyway. The outcome at the CC was an entirely predictable cut in NIE's revenues which will cost the shareholder at least £50m.[2] And yet prior to this resolution, customers had to hear close to two years of misdirected criticism at the regulator and the climate for infrastructure investment in Northern Ireland.

The final illustration is the extreme adverse reaction that some companies and investors had to recent proposals from regulators to cut allowed returns. Having helped different groups of investors come to terms with some of these proposals, it was surprising to me that some people hadn't conceived of the possibility that the cost of capital had settled to a permanently lower level after the global financial crisis until their regulator opened their eyes for them. In June 2013, the prospect of returns of sub-4% would have been genuinely shocking to many; in June 2014, I detect a growing level of comfort.

The conclusions to draw from these examples comes in three parts. The first two are straight-forward:

- first, there are simple things that regulators can do today to reduce the amount of friction with stakeholders – depersonalisation, strict discipline around process, ever better professionalism, etc.; and
- second, some amount of friction is inevitable and necessary in regulation, especially if regulators are sometimes quicker than companies or customers to make sense of changing circumstances.

[2] To put this figure in perspective, NIE's RAB is worth approximately £1.1 billion.

The third conclusion is that greater care can and should be taken to minimise the scope for substantive disagreements to develop and fester in regulated industries. I have the following recommendations in this regard.

i) Regulation ought to be less complex

The potential for regulatory friction in an industry is proportional to the number of issues that a regulator seeks to opine on. It is also fairly obvious that the potential for friction grows as a regulator's methods become more complex and more difficult for companies, investors and customers to understand.

It is a problem, therefore, that regulation is growing in complexity all the time. Some of that complexity is no doubt necessary to combat specific issues and problems that have arisen in individual sectors. But some of the complexity also seems to be a result of needless tinkering and over-thinking. I would even go as far as to suggest that change is sometimes motivated by individuals' desire to leave a legacy or to show their peers that they have reinvented the wheel.

A good example of these things that many readers will have encountered is menu regulation. These schemes have taken up huge amounts of time, as people have tried to make sense of very involved formulae and process. There has also been frustration and confusion when regulators have changed the rules or rebadged the schemes. More often that not, the upshot of hours of analysis is that companies have ignored the 'incentives' completely and stuck to producing what they have always thought is the right business plan.

Has the additional complexity produced new benefits for customers? Almost certainly no. Has the additional complexity increased friction between regulators and companies? Almost certainly yes. I could make similar comments about alleged improvements like cost of debt indexation, totex cost recovery and eight-year control periods, to name just three more things. In all these cases, regulators have taken a straight-forward regulatory model and made it less easy to understand and more prone to conflict but without delivering obvious offsetting benefit. A bonfire of over-clever ideas would make for much better regulation for all concerned.

ii) The quality of regulators' boards should be improved

The emergence of more complex regulation raises questions about the effectiveness of regulators' boards. In legal terms, it is these boards that make decisions, not the full-time staff. I wonder, therefore, how many board members are properly equipped to engage in the fine detail of modern-day regulation.

This really struck home to me earlier this year when I was looking at Ofwat's initial review of water companies' PR14 business plans and the decision to award two of the 18 companies 'enhanced' status with associated benefits. One of the key criteria in Ofwat's assessment related to cost assessment, and here it was apparent that Ofwat was relying on the most complicated comparative efficiency models that have ever been applied in economic regulation. I'll happily admit that I struggled to get grips with Ofwat's spreadsheets and it is very hard for me to believe that Ofwat's board members 'owned' what I was looking at – i.e. that they were capable of understanding and challenging the design of the models, of recognising the advantage and disadvantage that individual companies might have taken, or of checking the way in which the Ofwat staff team applied the modelling results to 18 different businesses. As a corollary, I have to ask what sort of check the Ofwat board offered when reviewing the staff team's numbers and consequent fast-tracking proposals.

This is not meant to impugn the contributions that the individuals that sit currently on regulators' boards make to good regulation. But it is meant to say that I believe that boards could and should be strengthened by bringing in recognised regulatory experts from other regulators' offices, companies in other sectors or the economic consultancy community. There is a reasonable pool of individuals out there that can opine with authority on efficiency assessment, CAPM, market definition and so on; bringing their expertise directly to bear on the decision-making process would enhance the quality of regulators' decisions and help to weed out bad, ill-thought-out regulation before it becomes public.

iii) Regulators should take more downtime

A final way of reducing the friction in UK regulation is for regulators to show a greater willingness to withdraw from set-piece interactions with companies. The trend recently has been for regulators to employ broadly the same number of number of people doing broadly the same hours of work throughout the regulatory cycle. As Parkinson's law would suggest, this has resulted in regulators filling the time between major price review decisions with additional reviews and additional consultation, much of which I would argue has been unnecessary.

It should not be too difficult to divide a typical five-year regulatory cycle up into a maximum of two years of increasingly intensive activity and a minimum of three years of downtime. By downtime, I mean that day-to-day monitoring and enforcement activity should continue but that regulators should resist the temptation to launch new projects or new reviews, especially if this activity does not translate into an action that can be implemented with immediate effect. (The test here might be: is the new work going to lead directly to an appealable decision? If it is not, there has to be a compelling reason why the work is needed.)

2015 will be a test year in this respect. Subject to any appeals that might emerge from Ofgem's RIIO-ED1 review, Ofwat's PR14 and Ofcom's latest charge control reviews, the regulatory calendar looks very quiet. One might hope that the regulators will largely withdraw from monopoly regulation at this time, with staff reallocated to other work. If they do not, I fear that there will not be time for the dust to settle on the determinations that are being made later this year and that engagement between regulator and companies will be clouded by the settling of old scores.

4. Opportunities

So far this essay has focused mainly on regulatory process. I now turn to a set of more chunky observations about the opportunities that I think are out there to lower customer bills in both the short and long term.

I should give a warning upfront that I jump much more into the fine detail of regulation at this point.

4.1 Business plan competitions

To my mind, the best thing to happen in economic regulation during the last ten years is the success that regulators have had in getting companies to produce more challenging business plans. I'm thinking here specifically of the effects of:

- the importance that regulators have attached to customer engagement;
- business plan competitions; and

- the new attention that has been paid to board governance and board sign-off.

I will pull out the Ofgem-devised idea of holding a business plan competition as the single best innovation in that list. For anyone that is not familiar with this concept, Ofgem, followed closely by Ofwat, has taken recently to grading companies' business plans so as to be able to announce during a price review that one or more companies have submitted the best plan(s). This simple concept has brought about an enormous shift in companies' mindsets; rather than go into a review with the usual padded cost forecasts, I have observed at first-hand how companies have been falling over themselves to self-censor and pare back on cost projections so as to be eligible to claim the title of best plan.

Crucially, companies have done this without knowing what kind of prize having the best plan will earn them. They have also entered the regulator's competitions without fully understanding the criteria that their plans will be judged against. The rules of the game have seemed at times to be utterly unimportant. As one company insider put it to me recently, the story is a simple appeal to pride: "if someone is holding a competition, our CEO will want to win it".

The benefit for energy and water customers almost certainly runs into hundreds of millions of pounds. Whereas previously regulators were hampered during reviews by textbook problems of asymmetric information, business plan competitions have taken a great deal of fat off the bone even before the regulator begins its work. Although it is impossible to quantify the benefit with any precision, I am convinced that final prices will be several percentage points lower on average than they would have been if the negotiations with companies were to have started at a higher base.

I have two specific suggestions for regulators from this. The first is that Ofgem and Ofwat, on behalf of regulators collectively, would be wise to review carefully the lessons that can be learned from the RIIO-ED1 and PR14 competitions. I say this for two reasons:

- I suspect that the regulators don't fully understand the way in which companies have responded to competition. I worry, in particular, that both regulators think the offer of monetary prizes was more important than it was, meaning that they might just have needlessly handed the fast-tracked companies millions of pounds of additional revenue; and
- from my standpoint, there was a good amount of rough justice in the selection of the fast-tracked companies, so that, with hindsight, it is difficult to see that there was a level playing field in which all entrants had an equal chance of making the top selection. This matters because the regulators' actions in the 2013/14 competitions will influence whether companies want to enter again at the next round of periodic reviews. Personally, I don't think that the injustices that some companies were served will deter the majority of companies from competing again next time, but this is a hypothesis that needs to be tested.

The second suggestion is that other regulators should investigate whether they can harness the same forces. Unlike Ofgem and Ofwat, other regulators do not have the luxury of regulating multiple companies in the same sector at the same time. But this need not necessarily mean that there is no scope for business plan competitions. The NI Utility Regulator, for example, might be able to devise a scheme which sees companies from different sectors competing against each other. ORR, as regulator of a single monopoly company, might be able to establish some sort of

competition among the Network Rail regions. Even if the best that other regulators can manage is a diluted version of the Ofgem and Ofwat competitions, this second-best might still be a significant improvement on status quo.

4.2 Sliding-scale regulation

One of the first things that students are taught about RPI – X regulation is that companies get a fixed deal for a fixed period of time. This is in contrast, with rate of return regulation, where the deal lasts for so long as profits do not move too low or too high.

If the textbooks were bring written in 2014, it is not obvious that this would be a fair characterisation of the UK version of RPI – X regulation any more. A new word – “legitimacy” – has entered regulators’ vocabulary, such that some regulators are consciously backing away from price controls that can result in companies earning significant super-normal profits. I’m thinking here primarily of:

- Ofwat’s dis-owning of the price caps in year 5 of its PR09 determination and subsequent insistence on more explicit gain-sharing in the 2015-20 control period;
- the WIC’s new “tramlines” for Scottish Water; and
- in slightly different circumstances, Ofcom’s monitoring regime for Royal Mail, with its explicit EBIT margin target.

I’ve been encountering mixed views on this drift towards sliding-scale regulation. Some people view profit capping as unavoidable at a time when the public are intolerant of corporate greed. Others go further and think that explicit profit-sharing mechanisms tap into the same pride that gets companies to enter business plan competitions – i.e. management want to be seen to be running companies that are able to give something back to customers as well as offer returns to shareholders.

The alternative view is that profit-sharing will encourage a stick-to-the-plan mentality in companies. This was very much the consensus view in the late 1990s when the incoming Labour government mounted a push for sliding-scale regulation.[3] It is also a view that still probably prevails in the academic literature.

I have yet to form a view on this. In part this is because it feels natural to question whether sliding-scale regulation will work symmetrically – i.e. will companies really be able to share pain with customers or will they just be blamed for poor performance? In part it is because I have yet to come across a board that doesn’t evaluate new investments and new schemes through traditional business case analysis, which rather suggests that companies will be more reluctant to innovate when they get into profit-sharing territory. But it is also because I recognise that the purpose of price cap regulation changes as industries mature and that there is a problem if profits and losses are nowadays more likely to be due to luck rather than management effort – especially if I am to heed my own warnings about noise and resulting complexity.

At the very least, I think it is fair to say that this is an area that merits additional research before regulators slip unconsciously into rate of return regulation. As part of this, it would be good for

[3] Ofwat was one of the organisations that articulated this most clearly. See: http://www.ofwat.gov.uk/legacy/aptrix/ofwat/publish.nsf/Content/responsetogreenpaper.html.

there to be an emphasis on understanding the behavioural responses that modern-day management teams make to financial incentives vis-à-vis reputational incentives.

4.3 A move to CPI-linked price caps?

The other gradual shift that is starting to occur in UK economic regulation is a move away from RPI-linked price caps to CPI-linked price caps. This time next year, four regulated companies – NATS, BT, Royal Mail and Scottish Water – will have price restrictions defined by reference to the annual movement in the CPI index. This is a small subset of the UK regulated companies, but it does demonstrate that the substitution of RPI for CPI that is happening in the wider economy is starting to occur in UK regulation.

I will be surprised if this subset is not noticeably larger in ten years time. This is because:

- it doesn't make great sense to link regulated prices to a measure of inflation that the ONS have declared to be statistically invalid and which may soon be unfamiliar to a majority of the public;
- recent history has shown that RPI-linked price caps are more volatile and less predictable than CPI-linked price caps;
- regulators have anyway shown themselves lately to be very bad at setting RPI-linked price caps. As evidence of this, Ofwat's and the CAA's latest RPI-linked price cap proposals are very likely to hand companies windfall gains as a result of a failure to incorporate realistic – i.e. 3.5% plus – RPI forecasts into all corners of the price control calculations;[4] and
- accommodating RPI inflation with this sort of run rate in regulatory calculations is not easy, particularly in the calculation of the cost of debt, where regulators are in danger of asking customers to pay less than half of companies' interest bills as they fall due.[5]

The main obstacle to an immediate switch to CPI-linked price caps across the regulated sectors is the stock of long-maturity RPI-linked debt that regulated companies have accumulated over the last 15 years. When First Economics looked at a possible switch to CPI-linked regulation in a study for the water industry a couple of years ago,[6] we were told in no uncertain terms that a mismatch between RPI-linked debt and CPI-linked revenues/RABs would be very unwelcome. This led us to conclude that if a switch is to occur, it should be announced to companies well in advance so that they have time to adapt to the new regulatory framework.

I would now argue that the timescales are such that regulators should be signalling their intentions to companies as soon as possible. To contradict what I said earlier about regulatory withdrawal after price reviews, a cross-sectoral project next year on the prospects for CPI-linked price controls would be very well timed.

[4] Regulators still seem to assume that RPI inflation will run at 2.8% to 3.0% per annum when the latest Office of Budget Responsibility forecasts put average RPI inflation over the duration of upcoming control periods at 3.5% or higher.

[5] This can be seen in the Competition Commission's recent determination for NIE, where customers will cover only the first 3.2% of NIE's 6.5% interest payments during the 2012-17 control period, with the rest falling to paid in later years. I cannot think of anything objective economic justification for this under-payment.

[6] UKWIR (2012), Alternative measures of inflation in the regulatory framework.

4.4 Reducing the debt premium

The final issue that I hope features somewhere in the new UK Regulators' Network programme of work is the size of the debt premium paid by UK regulated companies. Looking back at past bond issuance, it is apparent that companies have been paying a premium of around 150 to 200 basis points above gilt yields for new borrowing. With the debts that regulated companies have built up since privatisation, this sort of premium probably costs UK consumers over £1 billion per year.

It is interesting to think what customers get for their money. Regulated companies borrow first and foremost because they invest and because they recoup the cost of that investment not from the customers that happen to be around when the pipes, wires and concrete go into the ground but from the customers who benefit from the investment over the life of the built assets. Lenders, to all intents and purposes, step in to this transaction to bridge the gap between spending today and revenue tomorrow.

What then justifies the 150 to 200 basis points premium? Regulators have been very clear through the use of RABs that the cost of past investment will definitely be added to future customers' bills. And lenders are not obviously bearing operational risk; regulated companies almost always have sufficient equity to cover cost overruns and other potential shocks. As a customer, I am therefore inclined to think that 150 to 200 basis points is a very handsome reward for very little risk.

If I were a regulator, I would want to look more closely at this issue with a view to seeing if there is something I could do to bring the debt premium down. I would be asking:

- what is it that causes lenders and rating agencies to see such a high risk of default in finance for deferred revenue;
- are there any changes that the regulator can make to its price review methodology or to statements that it has already made about its commitment to RABs and financeability that would reduce lenders' and rating agencies' estimates of the probability and/or costs of default;
- would some form of structural separation between the pay-back of historical investment and ongoing business, akin, say, to the structural separation of wholesale and retail price controls, reduce the premium that lenders charge for financing legacy investment; and
- is there scope for government to step in with new legislation to make the commitment to paying back RABs watertight for investors?

To crystallise these thoughts still further, let me make a specific proposition. What would happen if payment for the return of and on the first 50% of utility companies' RABs was a separate line item on customers' bills? Or, to be even more provocative, what if these payments were put in a completely separate bill and paid to a completely separate organisation?

What discount rate would financiers apply if asked to buy this stream of payments? What discount rate would they apply if the amount and the obligation to pay were enshrined in legislation? I think is very hard to believe that we are talking about 150 to 200 basis points above gilts. I also see no reason why there should be any change in the cost of financing the other 50% of RABs that is left inside the regulated companies.

This suggests to me that there is a prize worth potentially hundreds of millions of pounds a year that regulators should be looking to obtain for customers. I say this recognising that the mechanics are not nearly as simple as I make out and that there is a danger that some will read this as Professor Dieter Helm mark II. If, however, there is a willingness to think from first principles about what private finance brings to the regulated sectors, I do think that it will become clear that the rules could be rewritten in such a way as to make it cheaper to finance deferred payments for investment from the 1990s and 2000s.

5. Concluding Remarks

This deliberately quick scan of the regulatory horizon puts forward a handful of ideas for regulators to think about, covering behavioural, institutional and technical economic matters. I'd like to reiterate again that it is not meant to be a critical essay: the nature of economic regulation, after all, is such that there is always scope to do better, even when you're at the frontier.

If I get to write First Economics' 20th birthday essay, I hope that I'll be talking about an even more mature framework in which recent questions about independent economic regulation have been firmly put to bed. I can't ever imagine a world in which there is no friction or in which companies with monopolies or substantial market power are not pushed by regulators to do things that they would not otherwise do, but I also hope that that the processes and tools of regulation settle into more of a steady-state than perhaps we observe some three decades after the first utility-sector privatisation.

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PS If you have any comments on this essay, please get in touch at john_earwaker@first-economics.com.