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# UK EXPERIENCE OF UTILITY REGULATION SINCE 2003 AND OUTLOOK

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**UK experience of utility regulation since 2003 and outlook**

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**Abstract:** Regulatory practice continues to be criticised and challenged. Issues which were concerning Government, regulators, companies and consumers in 2003 are, in many respects, still unresolved. There is a risk that too many decisions on developments in regulatory policy will be taken by Ministers rather than regulators, working with companies and consumers in the sectors they regulate, and that Ministers will be unduly influenced by 'DIY economics'. The main challenge for the next ten years is, therefore, likely to be the relationship between regulators and government.

**Keywords:** Economic regulation, regulated industries, infrastructure, sectoral planning

**JEL classification:** L51, K23, H54, L52

## Introduction

Ten years ago, at the conference marking the 20th anniversary of Stephen Littlechild's report on BT regulation, I reviewed the current state of economic regulation and was rash enough to make some predictions about the way it might develop. In this paper, I review experience over the last 10 years, and identify some current challenges to the UK model of independent regulation.

Before doing this, it is worth repeating two observations from my earlier paper. The first, from Professor David Newbery, is as valid now as it was when written 15 years ago: "Practice, which is evolving rapidly, continues to outstrip theory"[2]. There is still no textbook which regulators can pick up and adopt wholesale. Regulation remains a learning experience.

But in developing regulation and applying that learning, we need also to be aware of the siren voices of 'practical men'[3]. Too often, we see Ministers applying what David Henderson called "DIY economics"[4], rather than current best practice.

This matters because regulation has not developed in the simple way Littlechild envisaged for potentially competitive services like BT. In the network industries, where price regulation is likely to be permanent, so-called RPI-X has never existed in a pure form. It is simply a convenient summary label for the approach regulators take at periodic reviews to appropriate restrictions on the revenue that a company can recover and the incentive structures applying to it. That approach differs between sectors, and is continuing to evolve.

## So where were we in 2003?

Ten years ago, as now, the regulatory model was under challenge. There have been a number of reviews, by Governments, Parliament and independent bodies, as well as by the regulators

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[2] Newbery (2000).

[3] "Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist", Keynes (1936).

[4] Henderson (1986).

themselves. It seems fair to say that many of the issues on the table ten years ago are still unresolved.

One of the first actions in this area from the 1997 Labour government was to launch a 'utilities review'. This reflected concerns about the legitimacy of the UK model in terms of such things as the division of the benefits of privatisation between domestic and industrial customers, the extent to which company management was being excessively remunerated ('fat cats'), and questions about the conduct of regulation, in terms of transparency, the patchy development of competition, and inconsistent approaches to detailed aspects of regulation such as the cost of capital. In the area of capital expenditure, there were concerns about the adequacy of investment incentives.

None of these issues were really resolved by the outcome of the review. The resulting legislation, although titled 'Utilities Act', was primarily about energy regulation, and included the merger of Offer and Ofgas into Ofgem, with new statutory duties. Any idea that **all** regulators would operate under the same statutory duties was quietly dropped. Nor has the suggestion that the 1998 Competition Act would lead increasingly to regulators relying on general competition powers rather than sector-specific licence powers been borne out in practice.

Reviews have continued, including in particular two by House of Lords committees. Those reports reiterated the importance of independence, both to protect consumers and to underpin effective financing, and also sought to address the balance between ministers and regulators by distinguishing between 'policy' and 'delivery'. However, I suggested in 2003 that a clear-cut distinction was impossible, and that the real issue was that there were multiple objectives for regulated companies. Disagreements about the conduct of regulation were, I suggested, often disagreements about the objectives that were being pursued[5].

The implications which I drew from this analysis seems to have been borne out in practice. I argued that there was a need to accept that the key utility networks are inevitably public-private partnerships, involving important issues of public policy as well as narrower issues of efficiency and competition[6].

More specifically, I suggested that:

- political involvement in determining outputs and objectives was inevitable, but this needed to be transparent, leaving regulators full independence in exercising their functions;
- subject to this, there should be a presumption of competitive delivery: but it was for regulators (and the competition authorities) to decide the role, scope and pace of introduction of market mechanisms and supply competition, not Government;
- to underpin this commitment to competition, there was a need for better alignment between the regulatory and competition/merger frameworks; and
- on a technical point, regulators needed to give more explicit consideration to risk allocation between customers and companies, and to consider the implications of this both for the cost of capital and opex and capex allowances.

These have indeed continued to be important issues for regulation. There has been good progress in some areas; in others we seem almost to be going backwards. And even where progress has been

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[5] "There will always be good reasons for retaining regulation … Because we are explicit about having multiple objectives, it is very unlikely that one policy instrument – a price cap for instance – will be sufficient … Regulation must remain ever-alert and ever-changing", Corry (2003).

[6] The 2004 Rail Review, in which I was involved as an adviser before taking up my role as the first chairman of the Office of Rail Regulation in July 2004, described railways as "a public and private sector partnership … specified by Government and delivered by the private sector", DfT (2004).

made, as with competition in energy, there is controversy about both its effectiveness - as evidenced by the current investigation by the new Competition and Markets Authority - and whether regulatory policy has benefited consumers.

My review of the last ten years therefore covers six aspects of regulation to consider what progress has been made, and what further developments may be expected. The six areas are: development of the RAB model, development of price review procedures, the focus on competition, extensions of the regulatory model, financing, and finally the role and structure of regulators. I discuss each in turn.

**Development of the RAB (Regulatory Asset Base) model**

The RAB (or Regulatory Capital Value) was first developed by Ofwat in 1992. It recognises that the appropriate return to companies should reflect the financial investment made by investors at privatisation rather than the balance sheet value of assets; it is therefore essentially a financial concept. Commitment by regulators to the basis for calculating and rolling forward the RAB is therefore a key element of providing assurance to investors - which after all is one of the central justifications for independent regulation. In the sectors where regulation of network access prices is seen as permanent - energy, water, rail - all regulators have adopted the RAB model. Price reviews are then principally a matter of assessing efficient operating costs, efficient investment programmes, and determining an appropriate return to be applied to the RAB.

Perhaps the most notable development of the RAB model of the past ten years has been the implementation by Ofgem of its new RIIO model, the result of its "RPI-X at 20" review[7]. In some ways, RIIO merely codified current best practice by regulators, recognising that no regulator applied RPI-X in a pure form. However, by extending the review period from five years to eight – albeit with the possibility of a mid-term review – it did change one key feature of the current model. Ofgem has also put more emphasis on uncertainty mechanisms. These changes have moved the price control framework for energy networks away from that for other networks (principally rail and water), where five year reviews with limited reopeners remain the basis of price controls. Ofwat's separation of retail and wholesale price controls for water companies does, however, open the possibility for water network price controls to evolve towards the Ofgem model in future.

One obvious question about the eight year controls now set for energy networks is whether, in the event, they will indeed survive that long. Five year controls have been seen previously as the best balance between certainty for investment programmes – an important underpinning for efficiency – and uncertainty in the policy and cost environment. Since policy uncertainties are, if anything, increasing, it is clearly possible that a longer price control period with more extensive uncertainty mechanisms now provides a better balance, at least in the energy sector. Only when the effectiveness of those mechanisms has been demonstrated, and the required scope of any mid-term review shown to be limited, will it be possible to reach a conclusion on this.

There is, perhaps, a parallel here with the ill-fated public-private partnership for London Underground. This was set up with 7½ year Periodic Reviews[8], but with so-called Extraordinary Reviews at any point if changes in costs, for the notional efficient Infraco exceeded a relatively modest Materiality Threshold. Although this model looked workable on paper, in practice it was a failure. In the case of the two Infracos controlled by the Metronet consortium, cost increases far in

[7] "RIIO (Revenue=Incentives+ Innovation+Outputs) [is] a new performance based model for setting the network companies' price controls which will last eight years" (*Ofgem website*).

[8] Those designing the PPP sought review periods longer than the standard 5 years, but shorter than 10. As the contracts were of 30 year duration, 7½ years was the obvious choice.

excess of the Materiality Threshold were allowed to accrue before an Extraordinary Review was called. Given that many of these cost increases were deemed by me, as the independent statutory arbiter, as not "economic and efficient and in accordance with Good Industry Practice" (the test in the contract), Metronet went into administration. The other Infraco, Tube Lines, survived until the first Periodic Review. But at that point, the inflexibility of the financing assumptions made it attractive for London Underground to buy out the shareholders[9].

Although the parallels are not precise, there is a continuing tension between giving good incentives to efficiency in investment programmes and responding to inevitably uncertain policy objectives. It is not clear that any of the regulators have yet fully resolved this conflict.

**Development of price review procedures**

As regulators get more experience of undertaking price reviews, it is not surprising that the procedures themselves have evolved. In response to the increasing complexity of regulators' attempts to 'second guess' company plans, RIIO puts considerable emphasis on the companies themselves engaging with their customers more effectively and taking proper ownership of their business plans. Ofwat has followed a similar approach, as has ORR in the case of Network Rail's engagement with its train operator customers. "Constructive engagement' between airports and airlines has also been developed in the aviation sector, although airlines are obviously not the final users of airport services.

Price reviews were originally seen as part of a regulatory contract between regulators, on behalf of final consumers, and the companies. Given the RIIO developments, price reviews now have more of a two-stage character. Companies are expected to engage much more closely with its customers on what those customers actually require and are prepared to pay for - which is of course potentially different in different company areas. It is a natural consequence of encouraging this engagement that those companies which score highly will be "fast tracked", with with a relatively light touch review of those plans by the regulator. Both Ofgem and Ofwat have fast tracked a small number of companies where these 'quality' thresholds have been passed. Companies failing to exceed the threshold have been subjected to a more conventional and detailed regulatory review. But the quality tests need to be properly understood, and transparent, for this approach to work effectively. It is not obvious that this is yet the case.

Again, perhaps, there is a lesson from the rail sector, in this case rail franchising. The increasing complexity of rail franchising has led to a number of cases where operators have failed to meet the requirements of the Department for Transport (Df T), even where those requirements have not reflected what passengers have actually required. The nadir was the suspension of the West Coast Main Line franchise award, where it emerged that DfT officials appraising the bids had been confused by the complexity of their own rules[10]. Complexity had done nothing to protect the interests of either passengers or taxpayers.

But light touch regulation requires trust on both sides. Until there is a clear record of ex ante excellence being reflected in ex post delivery, regulators will remain suspicious that production of good business plans has become a new form of regulatory gaming. But this is clearly the right direction to go. There is some justification in arguing that, as with rail franchises, price controls in the water sector had become so complex that, at best, companies did not understand that the rules that were intended to incentivise their behaviour, and, at worst, that those rules were internally inconsistent.

[9] See for example PPP Arbiter (2010).
[10] Department for Transport (2012)

Perhaps a useful test, if there is to be more emphasis on incentives and less on traditional efficiency adjustments to business plans, is to ask whether the boards of regulated companies understand the incentive framework within which they operate and can take decisions consistent with it. If the incentive mechanisms are so complex that only regulatory departments understand them, then they surely cannot be having the intended effect.

**The focus on competition**

Regulation has always been seen as a second best to competition, where that is possible. The problem, however, is that this is not often seen in practice as a technical matter on which regulators can weigh up the effectiveness of competition and regulation in promoting and protecting the interests of consumers – with the possibility of a competition authority review in the background if there is a need for structural change to achieve effective competition. In practice, decisions on competition have been seen as major policy ones, involving Ministers. This has been particularly true in the rail and water sectors, where the development of competition has been significantly limited by Ministerial concerns about impacts on poorer customers or on taxpayers.

A tension between ex ante regulation and competition policy is perhaps inevitable given the replacement of the 'public interest' test in the 1973 Fair Trading Act with the 'substantial lessening of competition' test in more recent competition legislation. Regulators all have broad public interest duties which often require them to make judgements about the weight to be attached to each. Supply competition - particularly in the absence of an effective market for the commodity being transported through the regulated network - may not meet the full range of public interest objectives of interest to Ministers and indeed citizens.

**Extension of the model**

Although the 1997 Utilities Review failed in its aim of achieving greater consistency between the regimes for different sectors, the past ten years have seen one example where greater consistency has been achieved, and a number of suggestions for extending the model to other sectors.

Following a review of airport regulation in 2008 by an independent expert group chaired by Professor Martin Cave, of which I was a member, the Civil Aviation Act 2012 brought the regulatory framework for the Civil Aviation Authority, in respect of airports, more into line with other sectors. The Competition Commission became an appeal body, rather than, in effect, a free consultancy to CAA, CAA gained concurrent competition powers[11], and its statutory duties were revised onto a basis more similar to other regulators. It also gained a power to issue licences, although on a much more restrictive basis that recommended by the expert group.

There have been a number of suggested possible extensions of the RAB model[12]. In 2011, the new Treasury body Infrastructure UK undertook an unpublished review of the scope of such extension to assets such as roads, reflecting its view that regulation was a key enabler of investment in infrastructure assets.

The Government has subsequently published proposals for converting the Highways Agency into a Government owned company[13]. But the opportunity to make this a properly regulated company has

[11] In other words, it gained the power to use competition law powers in the airport sector alongside the competition authorities.
[12] See for example Helm (2013).
[13] DfT (2014). Statutory powers are contained in the Infrastructure Bill currently (June 2014) before Parliament.

been missed. Although ORR will have some new functions, this is only as a 'monitor' – in effect a consultant to the Secretary of State on efficiency studies – rather than as a regulator setting prices and enforcing delivery of outputs. This approach reflects, in my view, a fundamental and continuing misunderstanding within Government about the role of regulation for publicly owned companies. There is no question in Scotland of the value of independent regulation for the publicly owned Scottish water. But this understanding has not extended south of the border. The proposals for the Highways Agency also do not distinguish between the ownership and strategy roles of the Secretary of State, as has been recommended in NAO studies[14].

Another area where extension of the RAB model has been proposed to underpin investment has been in respect of nuclear power stations. Given the very direct Government involvement in policy in respect of nuclear power, Dieter Helm among others has argued that the cost of capital would be significantly reduced – because of a reduction in political risk – if a RAB model was applied. Instead, the Government has reached agreement with the developers of the proposed Hinkley C station on a quasi commercial basis, which has raised both state aid and value for money concerns.

Given this experience with the Highways Agency and nuclear power, there does not seem to be much prospect at present for extending the RAB model in other sectors on a directly comparable basis. Although difficult issues are raised if the RAB model is used for some suppliers in a market but not others, the failure by Government to debate these issues publicly, as promised in its 2011 National Infrastructure Plan, is, perhaps, a lost opportunity.

## Financing

I have already referred to Infrastructure UK, which was established to develop and oversee delivery of a National Infrastructure Plan. Originally, the NIP was seen as a strategic framework for investment in infrastructure, reflecting the view that such clarity would improve the efficiency of the supply chain and reduce the cost of financing that investment, and thereby result in greater competitiveness for the UK and cheaper prices for consumers. To achieve this, government departments would develop clear strategy statements for each sector, which regulators, and the supply and capital markets, could reflect in their decisions.

This original vision, which would include cross-sectional assessment of affordability and priorities, has not in practice be realised. IUK seems now to be focusing more on seeking finance for new projects outside the regulated sectors – in particular from China – and on reviewing progress on a rather random 'top 40' list of infrastructure projects.

For the regulated utility networks, financing is arguably one area where there do not appear to be any significant problems. Provided regulators gets the cost of capital (more or less) right, that their approach is (reasonably) consistent over time, and there is clear understanding of the regulatory framework among investors, then experience suggests that financing is not a problem.

If there is a problem in the network utilities, then it can surely be resolved effectively by regulators being more transparent and collaborative – explaining clearly differences in the detailed approach to regulation in different sectors, and the impact on the cost of capital. The new CMA can help to ensure that consistency through its appeal role. Government intervention is unnecessary.

## Role and structure of regulators

[14] This is discussed in more detail in my Beesley lecture 'Regulating a state owned company', Bolt (2010).

I have argued that, despite the recommendations of the House of Lords committee on regulators that unelected regulators should not be expected to take public policy decisions, there is an inevitable fuzziness over the boundary between policy (primarily for Government) and implementation (for regulators).

This fuzziness can clearly be seen in the energy and water sectors, although it is not this within the scope of this paper to consider the sectoral issues in detail.

There are also issues in the rail sector, notwithstanding the increased clarity brought by the introduction of the High Level Output Statement and Statement of Funds Available in the Railways Act 2005. The requirement for Ministers to publish these statements in respect of the rail sector is set in statute: it was described to me at the time by a senior civil servant as a mechanism for "keeping Ministers honest"[15]. This perhaps provides the clue to resolving any boundary issues.

The need for a clear published statement of government strategy in each sector is generally accepted. Much more difficult is its achievement. But without such published statements, there is a real risk that regulators will be put under unseen pressure to make assumptions about the strategy. That is a real threat to independent regulation; transparent dialogue or formal statements of strategy or funding reinforces it[16].

Other challenges to regulators, from Government and others, include:

- alleged lack of consistency between sectors, with insufficient collaboration on matters of common interest:
- a suggestion that regulators should make more use of general competition powers rather than sector specific regulatory powers (which has led to new powers in the Enterprise and Regulatory Reform Act 2013 for Ministers in the extreme to remove concurrent competition powers from individual regulators); and
- weak incentives to invest in schemes which bring benefits in more than one sector.

Evidence to support these allegations is limited. However, the creation of the new UK Regulation Network – modelled on the UK Competition Network established as part of the creation of the new Competition and Markets Authority – gives regulators a good opportunity to address these issues in a transparent way, outside the heat of a specific price review.

**Prospects over the next 10 years**

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[15] There is, perhaps, a similar aim in the proposals of the Armitt Review, commissioned by the Labour Party, for ten year sector plans to be produced by relevant Departments and voted on by Parliament, following a ten yearly National Infrastructure Assessment: Armitt Review (2013).

[16] The clearest statement of the right relationship between independent regulators and Government was in the evidence of John Swift QC (the first Rail Regulator) to the House of Lords Constitution Committee in 2003: "Independence of the regulator survives so long as and only so long as the actions of the regulator do not produce results which are at odds with what a democratic system expects. A regulator espousing the cause of independence but behaving in a manner which rattles markets, including capital markets reduces investment, raises regulatory risk and produces nothing for consumers and effectively abuses the system. One person's conduct can threaten the structure of independent regulation which thrives on causing industry to perform better than it otherwise would to the benefit of users and consumers and indeed to the State.
Independence is therefore a privilege to be used with the greatest care, precisely because substantial power to control has been transferred by the State from the Executive, which, I think, remains somewhat jealous of the loss of its legacy and will look for ways of regaining it.
Therefore a regulator who takes no account of Government wishes or concerns as to the future of "his" industry is acting irresponsibly. **Regulatory independence is not tainted by discussion or consultation with Government: rather it is enhanced through greater knowledge of the concerns of those elected to represent the public"** (my emphasis). House of Lords (2004).

At the risk of having to review my own predictions in another 10 years, I would tentatively suggest the following developments in regulation over the next 10 years.

There is likely to be continuing evolution of price review procedures, both to develop further the role of customers and to refine and simplify incentive mechanisms. Full ownership by companies of their plans must imply that boards also take full ownership, and that the role of regulatory departments in companies will become less important in interpreting regulatory policy. An important consequence will be significant reductions in the size of the regulators themselves[17].

Alongside this, there may be some modest extension of the regulatory model. However, the recent decisions in respect of roads suggest that there will be no major extension of the full model, with new independent regulators. Rather, we are likely to see bespoke extensions, taking on board elements of the "standard" model rather than taking on board that model in its entirety.

The main challenge for the next ten years, however, is in my view the relationship between regulators and government. I see three possible outcomes.

The first is that regulators collaborate to establish their own position on the appropriate boundary between policy and delivery, and to reclaim 'lost ground' where Government has intervened too much in the conduct of regulation. In this, they could be supported by a strong CMA, both promoting competition (and competitive market structures) wherever possible, and ensuring independent assessment of consistency.

At the other extreme, regulators could become effectively little more than 'agents' of government, implementing government policy in respect of investment in their approach to price reviews, and providing 'advice, information and assistance'[18] on efficiency and other matters. The future of ORR will be a key test here: as Network Rail is reclassified to the public sector, will the need for strong independent regulation of a public sector company be seen as remaining important, or will Ministers see themselves as in effect the regulator?

The third, middle, way is a continuing muddle and lack of clarity. This will not produce either the scale of investment in infrastructure which Government considers necessary, even if possibly not affordable, and the efficiency and responsiveness to consumers that regulators seek to encourage.

I would like to think that the establishment of the UK Regulation Network makes the first of these outcomes more likely. But the key test will be when – to use an energy example – insufficient energy supplies or insufficient capacity in energy networks create a strong (perceived) risk that the lights will go out. Unfortunately, experience suggests that Ministers will indeed see the need to intervene in response to 'events', whatever is published in a strategy statement. But, if Ministers meddle, the result is likely to be muddle. I hope I am wrong.

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[17] For example, Ofwat has already announced nearly 50 job losses following completion of the current price review.

[18] ORR was given a new duty to provide advice, information and assistance to the Secretary of State in the Railways Act 2005. Where this is given transparently, and is a minor part of the regulator's activities, there is in my view no threat to independence. But if it provides the basis for Ministers in effect taking decisions which currently fall to regulators, the position could be very different.

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