

**Thoughts on regulation, 2016**

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My remarks this evening deal with three aspects of current economic regulation in the UK. None of them are especially novel, but all of them are addressed in the review of regulation announced by the Government in November 2015.[[2]](#footnote-2) The three issues are: (treated briefly) the independence of regulators; (at greater length) the scope for competition in regulated network industries; and (very briefly) the innovative deregulatory potential of digitalisation. My general view is that the UK regulatory regime is not broken, but it is inevitably subject to tensions which lead to cyclical outcomes and is always subject to technical improvement. I therefore highlight several areas where I think losses can be avoided or gains won.

1. **Regulatory independence**

This issue has been addressed by Tim Tutton at a meeting of the EPF in 2014, and in a subsequent paper.[[3]](#footnote-3) What I have to add is limited. I start from the conventional wisdom that the reduction in investment risk which such independence can bring is vital to the success of regulation in the UK, where policy is subject to frequent change.

Clearly, it is easy to classify certain matters as properly rendered either to God, the policy maker, or to Caesar, the regulator, if they lie at one end or the other of the spectrum. But there is no clear bright line between the two categories. Expansionist (even revanchist) behaviour by the government is inevitable during its bursts of energy, though at times of greater fatigue we may observe a disinclination to deal with complex issues (public service broadcasting for example, at least for some of the time).

There is available an appealing mechanism for limiting hostilities – the publication by the government of statements of strategic policy covering the course of a Parliament, but this does not always happen.[[4]](#footnote-4) Perhaps this reflects the reluctance of ministers and civil servants to make such a long term commitment to policy stability.

I do, however, draw attention to four aspects of policy maker/regulator interaction, which may be sources of threat to regulators’ independence.

* Where a regulated sector washes its face, the regulator is essentially passing on the policy bills to end users (which can sometimes encounter resistance, of course).[[5]](#footnote-5) Where it does not, regulatory action impinges on a Department’s spending, which naturally encourages push back. The obvious example of this is the railway sector.
* The above-noted Treasury paper refers expressly to the fact that ‘since regulators were created, their functions have grown, which can take away from this focus on consumers.’ The government will examine ‘whether the functions of the economic regulators could be slimmed down to enable a greater focus on their core functions’ (in a ‘Star Chamber’). [[6]](#footnote-6) This could refer to a lot of things (including the role of ‘social regulation’). The one which I have in mind is a situation when a regulator undertakes administrative or back-office functions for a ministry, as happens with Ofgem and DECC. I conjecture that being a department’s servant in the morning does not sit well with full independence in the afternoon.
* Thirdly, the boundary becomes more contentious when the regulated sector is in policy transition. Oscar Lange described the Soviet Union as a ‘*sui generis* war economy’. While the UK energy sector falls short of both of Lange’s comparators on several counts, the hectic decarbonisation of energy supply creates a temptation for ‘armchair generalship’ in the cabinet/military headquarters, and poses challenges to the creation of the stable and predictable regime which regulators seek. This is likely to provoke conflict.
* Finally, the politicisation of the appointment, and re-appointment, of senior regulators can undermine both the appearance and reality of independence. This should be fixable, or at least its capacity to cause damage should be capable of limitation.

However, the bottom line, as both UK and other countries’ experience indicate, is that independence has always to be fought for; the sometimes hot and sometimes dormant war between policy and regulation has already lasted about Thirty Years in the UK, and looks set to be a One Hundred Years War. In this conflict (redundant as it may be to say so) the regulators’ best defence is to maintain a strong public reputation (or at least a stronger one than the government).

 **2. Competition**

Compared with the early 1980s, competition in UK network industries is now rampant in most sectors – water being the ‘last frontier’. The key has been unbundling, which has allowed access to essential infrastructure, removed retail regulation, and encouraged innovation. But classic unbundling is a top-down rather than a market relationship. Setting access prices and terms and conditions from the regulatory office is a hazardous business, which is subject to error.

How much better then to leave it to a horizontal relationship, which mobilises the information of the parties concerned, access providers and access seekers. This problem can be addressed by asking the regulators of network industries systematically to address the question: have all the opportunities for the development of markets been exhausted upstream, to complement the retail competition which unbundling has accomplished at retail level. If introducing effective competition in retail was designated ‘Deregulation 1.0’, then scouring the upstream for market or decentralised opportunities might be ‘Deregulation 2.0’ (of which there might be successive versions).

I look at the successes of this process and the prospects for the future in relation to two types of wholesale input. The first category is divisible inputs. The second is new lumpy assets.

*Category 1: Divisible inputs.*

This is a relatively easy arena in which to introduce competition. Below I give six examples of competition and markets actually or potentially replacing physical allocations or obligations to supply at regulator-determined prices (sometimes zero):

1. *Spectrum –* Once subject to ‘command and control allocation, spectrum licences are now auctioned all over the world – by governments anxious for the proceeds. Secondary trading is patchier.
2. *Wholesale electricity markets –* These now exist in a number of forms, and operate in their demanding circumstances (usually 48 times a day, in the face of various weather-related and technical complications) without the lights going out.
3. *Airport slots[[7]](#footnote-7)-* Despite substantial delay in the approval of EU Airports Package, announced in 2011, the UK slot trading at Gatwick and Heathrow did go ahead, including a transfer involving Oman Air at Heathrow, disclosed in February 2016, for a record price.
4. *TV sports rights –* Ofcom proposed in 2010 to require Sky to make its sports rights available to other broadcasters at a regulator-determined price in 2010. On appeal, the CAT set this aside. (The Appeal Court subsequently remitted the CAT’s decision.) Meanwhile competition rules concerning the assignment of football rights have facilitated the development of a market in broadcast sports rights. In 2015, Ofcom concluded that Sky was now supplying the relevant channels widely on commercial terms, so that “must-offer” rules were no longer needed.[[8]](#footnote-8)
5. *Water abstraction rights –* Such rights are currently both over-licensed and over-abstracted. A new system of allocation is required to support water competition. DEFRA has been aware of these economic and environmental imperatives since at least 2010. It intends to complete the reform of abstraction by 2022-25, by means of a plan which has not yet been disclosed. This looks like procrastination to me.
6. *Train paths –* In 2010, a French economist asked the interesting and challenging question: “Can the invisible hand [in the form of a combinatorial auction of train paths] write the railway timetable?”[[9]](#footnote-9) While the technical answer to this question is probably “no”, the answer to the broader question: “can a market allocation regime (e.g. an auction) deliver a competitive service market on major long distance routes” is probably different. Note, however, a damaging provision in the 3rd Railway Package which precludes the resale of train paths, thus eliminating the scope for a secondary market.

The first four examples represent successes in varying degrees in inserting wholesale competition into a regulated value chain. In each case, the market has not developed over millennia (possibly nurtured by the efficiency-seeking trends in private law-making which some discern), but has been designed by a public body. A great deal of international and domestic experience has now been accumulated (notably in relation to auctions) – though it is not necessarily available for every sector to pioneering countries such as the UK. Cross-country and cross-sectoral comparison of such experience is very timely.

The final two examples are work in progress; but each in its own sector is capable of providing indispensable support in the development of efficient and competitive markets throughout the value chain.

Does this mean over-riding other regulatory objectives than simply efficient competition? I am thinking here of quite proper redistributive and other goals such as cross-subsidy, universal service, etc. But it is important here not to lose sight of a key result from another area of economics which reads across to regulation:[[10]](#footnote-10) if a particular redistributive outcome is sought in end user markets, the intervention to achieve it should be also be sought in that market; intervening in wholesale markets will probably lead to productive efficiency. In other words: “don’t mess with input prices, if you can avoid it.”

*Category 2: New indivisible investments.*

This is much trickier. The BIS/Treasury document notes that a core regulatory function is “to protect the interest of consumers through price controls that make sure that network monopolies set prices fairly and are run efficiently.” My question is whether the range of assets subject to regulatory price control can be diminished? It is motivated by the belief that the regulators or government departments are not necessarily best placed to take decisions on the timing or nature of massive new investments, their costs then being recovered through regulator-set access charges.

This question in practice can only answered with respect to new investments, as existing ones are mostly sunk, and such things as local distribution networks do not lend themselves to the successful auctioning of capacity. So how can the timing, design and terms and conditions of access to such new investments be removed from the fallible or over-active hand of the regulator? I am not aware yet of any established recipe book, but it would include at least the following approaches.

1. *Contestability of investment projects.* Many UK (and overseas) regulators have endorsed and tried this approach, which has been widely documented.For reasons of space, I only note here that there have been some successes, but that organising such ‘competitions for the market’ are time consuming and, like other regulatory ‘separations,’ may have ambiguous effect on efficiency.[[11]](#footnote-11)
2. *Contracting, or ‘bargaining in the shadow of the regulator’.* This involves a regime in which the regulator encourages access seekers and access providers to work out a commercial agreement, on the basis that the regulator will intervene if no such solution is reached.[[12]](#footnote-12) One variant has been routinely used in the Antipodes, by a two-stage process which first involves attempts to reach commercial agreement; if none is reached any party can seek the ‘declaration’ of a facility as fit for regulation; if that is made, a regulatory decision may follow. This seems most likely to succeed if the regulator’s decision is forecast very accurately by both sides (i.e. in combination, the parties do not exhibit ‘optimism’ about the outcome, for example by both expecting to appropriate the expected gains from trade), or if the regulator’s propensity for volatile decision-making is feared by both sides. It may be that the majority of cases lie somewhere in the middle.

Interestingly in this connection, the CAA discussed at the time of the last airport price control the possibility of moving away from the traditional model of paying for major airport investments (which involves upfront recovery of the costs of work-in-progress - assets in course of construction) to a model based on contracting between airport and airlines.[[13]](#footnote-13) The advantage would be a better defined project, and a better allocation of risks and reward. However, in connection with mammoth airport projects, such as a new runway and associated terminals at Heathrow, this would be a very large and inevitably somewhat risk-laden project, with consequent difficulties in agreeing and gaining private finance for an investment which inevitably contains substantial policy risk.

1. *Marshalling effective demand.* Ofgem has developed a procedure to make the construction of new gas pipelines[[14]](#footnote-14) and other infrastructure contingent on customers in aggregate exercising effective demand for a specified level of output of services. This then triggers the investment, which includes further capacity.[[15]](#footnote-15) This approach has the limited but important goal of determining the timing and scale of new facilities, but not the price, which remains regulated.
2. *Favouring pro-competitive technologies.* This may best be illustrated by an example relating to fibre networks. It has come to light that certain key choices in fibre network design can exercise a powerful influence on the subsequent level of infrastructure competition, as well generating different network speeds.[[16]](#footnote-16) The question becomes: is it legitimate to influence firms’ technological choices on ‘market failure’ grounds?

These approaches show how major upstream investment decisions can in principle be decentralised. None of them is straightforward, but I would be inclined to put my money on bargaining and contracting (including ‘customer engagement’) as the option which is most promising (but not universally).

*More generally,* the current BIS/Treasury review wisely notes that the regulators’ goal is to ‘ensure that competition is promoted wherever possible for the benefit of consumers’. As a means to this end, I think it is worthwhile in the course of a five or so year regulatory cycle to ask the regulators to address the question - *Have all the opportunities for the development of markets across the whole value chain been exhausted? What more can and should be done?* A thinner version of this is already a feature of the (European) regulatory regime for electronic communication services, which has sunset clauses requiring market analysis every three years (possibly too short for comfort). But what may be required on top of such regular reviews is a positive obligation pro-actively to consider market-opening initiatives. Such a process will also expose areas where the obstacle to reform lies elsewhere than in the regulatory office.

1. **Innovation**

A final brief remark on the impact on regulation of a particular aspect of innovation associated with digitalisation. Its impact can already be seen in smart meters in energy (and possibly water), which - with appropriate data analytics – may possibly lead to a new set of relationships in the relevant value chain, in particular a revamp of the supply function.

Another sector potentially subject to even greater change is passenger and goods transport. This has traditionally been regulated in silos – buses, trains, boats, planes etc. But several related technological changes are fast approaching:

* the development of autonomous vehicles (driverless cars and other road vehicles; drones);
* partially as a consequence of the above, the wiring of highways;
* the development of online transport platforms which can give passengers or shippers ‘by the minute’ updated multi-modal information on options.

In relation to autonomous vehicles, attention is already focussed on safety and licensing aspects. But other changes such as a substantial growth in vehicle-sharing are also possible. The wiring of roads generates much better information for competition across various modes on the online platform, and introduces opportunities for improved road pricing which could begin to be realised with freight vehicles, as is happening in the UK. The final outcome could be a redefined, wider market in which power shifts from the physical infrastructure to other levels of the chain, particularly to the availability and control of information. This would also require a more unified regulatory approach, and the position of the online platform(s) might have to be monitored.

1. Visiting professor Imperial College Business School; the views expressed here belong to the speaker alone. [↑](#footnote-ref-1)
2. See H M Treasury, A better deal: boosting competition to bring down bills for families and firms, at para. 4.15, November 2015, Cm 9164. [↑](#footnote-ref-2)
3. Tim Tutton, The Future of Independent Economic Regulation in the UK, EPF, 2014 [↑](#footnote-ref-3)
4. DEFRA’s 2013 strategy statement for Ofwat notes: ‘The [BIS 2011] Principles for Economic Regulation require that the Government put in place a strategic policy statement for each of the economic regulators to provide transparency regarding priorities and desired outcomes’. It would be nice if it happened. [↑](#footnote-ref-4)
5. This can only be done successfully up to a point, of course. An accumulation of straws can break the camel’s back. [↑](#footnote-ref-5)
6. According to some accounts, even in their prime Star Chambers lacked powers of capital punishment, but could impose mutilations, such as the cutting off of ears. [↑](#footnote-ref-6)
7. This refers to the scarcity value of gaining access to an airport, not to the remuneration of runway and terminal services, which is discussed below. [↑](#footnote-ref-7)
8. Ofcom, Review of the pay TV wholesale must-offer obligation, November 2015. This may still be subject to appeal by parties other than Sky. [↑](#footnote-ref-8)
9. P Perennes, Can The Invisible Hand Draw The Railroad Timetable? Available at http://crninet.com/2012/C9d-2.pdf [↑](#footnote-ref-9)
10. P. Diamond & J. Mirrlees (1971), ‘Optimal taxation and public production’ American Economic Review, 61 pp. 8-27 and 261-278. [↑](#footnote-ref-10)
11. For general evidence of the efficiency of integration and separation, see F Lafontaine and M Slade, "Vertical Integration and Firm Boundaries: The Evidence." Journal of Economic Literature, 45(3), 2007: 629-685. [↑](#footnote-ref-11)
12. This can be seen as the same as or a close relative to the widely discussed phenomenon of ‘customer engagement.’ [↑](#footnote-ref-12)
13. I Osborne, Beesley lecture, 2014 [↑](#footnote-ref-13)
14. On the general question of pipeline regulation, see J Makholm, The Political Economy of Pipelines, Chicago University Press, 2012. [↑](#footnote-ref-14)
15. Exactly how much extra is appropriate requires a careful balance if risk and reward in each case. Perhaps less for energy than for digital networks. [↑](#footnote-ref-15)
16. M Cave & T Shortall, ‘How incumbents can shape technological choice and market structure – the case of fixed broadband in Europe,’ INFO, 2016, vol 2. [↑](#footnote-ref-16)