

**Regulatory Creep and Regulatory Withdrawal:
Why Regulatory Withdrawal is Feasible and Necessary¹**

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Executive Summary

This paper reviews the history of British utility regulation and the lessons to be drawn from it. It argues the following:

- That there is considerable scope, with the right industry structure, for competition to replace price cap regulation to safeguard the interests of consumers.
- That regulatory withdrawal from major parts, though not all, of the utility sectors is feasible.
- That regulatory withdrawal allowing competition to flourish is desirable because this provides the best incentives for innovation and investment.
- That such regulatory withdrawal is especially important in fast-moving, innovative sectors where incentives are key and regulation may well inevitably lag behind market developments.
- That there is a contrast between what has happened in gas and electricity, where there has been a clean withdrawal from price regulation of supply, and what has happened in telecoms where price regulation is in danger of spreading from fixed line telephony to mobile and no clean regulatory withdrawal has occurred.
- That this highlights the need to create the right framework of statutory duties for Ofcom, with an emphasis on achieving regulatory outcomes wherever possible through competition.
- That this also highlights the benefits of separating ownership of telecoms networks from supply of telecom services. This may well be in the commercial interest of currently vertically integrated companies because it facilitates regulatory withdrawal.

1.1 Introduction

Over the past two decades, the UK gained an international reputation for innovative approaches to managing the provision of utility services. The UK was seen as a pioneer in privatisation and in the subsequent approach to regulation of the resulting private utilities. Mistakes were made and lessons drawn; but the record was widely admired and studied around the world.

Today the sparkle has come off this reputation. Despite clear successes, such as an innovative new system for trading electricity, the spotlight has turned to the problems, notably Railtrack but also potentially NATS and the political turmoil around the London Underground PPP. Concerns abound, especially in water, that price cap regulation (at the heart of the UK regulatory model) may not provide the right incentives for long term investment and system development.

More generally, there is a prevalent view that regulatory creep is inevitable; that regulators will be unwilling to let go and indeed will be inclined to increase over time the range and scope of what they control. Thus while in the early days of UK regulation, price cap regulation was broad-brush, many see a trend towards more detailed micro-interventions that, at the limit, become micro-management of the regulated company by the regulator.

We share concerns these issues. But we differ in not seeing regulatory creep and the trend towards micro-management as inevitable. Indeed, we believe that, with the right regulatory philosophy and with the right statutory framework for regulators, emphasising the duty to achieve regulatory objectives wherever possible through competition, then far from regulatory creep being the order of the day, regulatory withdrawal is possible. In support of this position we draw a contrast between gas and electricity markets where, within the context of the Utilities Act 2000, withdrawal has been appreciable, and telecoms where regulatory withdrawal has been much more limited. Thus in telecoms, there is the risk of regulation spreading from fixed line telephony, where the local loop monopoly poses real regulatory issues, to mobile, which we argue is effectively competitive.

These issues are of particular policy salience at the present time with the substantive Ofcom bill recently published. We argue that it is crucial that the primary statutory duty (or duties) placed on Ofcom emphasises the importance of using competition to achieve regulatory objectives wherever possible. We also argue that concern in the media for pluralism for reasons related to democracy and citizenship should entail a more stringent set of thresholds for competition policy in the media than elsewhere. Thus great care is needed in the reformulation of restrictions on cross-media ownership that is envisaged as part of the Ofcom bill.

The structure of this paper is as follows. The next section provides a brief overview of the history of the utility sectors in the UK, going back to the privatised era before nationalisation and reviewing subsequent developments. We note a number of themes that recur through the cycle of private to public ownership and back. A much fuller account of this history is provided in the appendix to this paper.

We then look in Section 3 at the possibilities for regulatory withdrawal, arguing that this is possible with the right regulatory philosophy supported by the right statutory framework. But it does require an acute appreciation of the limits of regulation and the need to target regulatory intervention at the most egregious instances of market failure rather than trying to regulate to set all things right. The best defence against regulatory creep is an acute awareness that multiple regulatory interventions, layered one on the other, may well result in regulatory incoherence, even though each intervention may be individually defensible and appear desirable.

In Section 4, we focus on the issue of investment in the context of the recent history of telecoms. We argue that it is exceedingly unwise, in the midst of major investments in new technologies, to seek to make a Solomon's judgement as to whether companies are making excess profits, largely because of the impossibility of measuring *ex ante* expected profitability. Regulating *ex post* profitability, ostensibly in the interest of consumers, will end up destroying incentives for investment and innovation in new technologies, to the ultimate detriment of consumers. We argue that the market in mobile telephony is sufficiently competitive for regulation to be through Competition Act powers, not through price cap and other licence conditions.

Finally, in Section 5, we focus on the implications of our analysis for the statutory framework to be put in place for Ofcom. We argue that it is essential that Ofcom should have a primary statutory duty to achieve its regulatory objectives wherever possible through competition. We also argue that the communications/media sector requires a more stringent set of criteria for the application of competition policy, recognising the greater value of diversity of supply in this sector, because of the benefits to civic society and democracy, than in other commercial sectors.

The History of UK Utility Regulation

As our account of the history of the UK network industries shows, they have nearly always created policy concerns, relating to monopoly, “unfair” pricing, investment, and performance. Thus the nationalisations of the immediate postwar Labour Government were preceded by a period of regulation of key sectors, often to coordinate diverse network activities. There is a rich body of evidence from that earlier era which is all too often overlooked. The different approaches that have been tried allow us to draw some insights into and generalisations about the underlying issues. The history of these industries suggests that demands for greater or tighter regulation need to be grounded in the clear identification of a natural monopoly. The experience of regulation in the pre-nationalisation era was that it frequently led to:

- pricing rigidities
- inflexibility in industry structure creating barriers to rationalisation
- inadequate investment
- poor performance

Once introduced, regulation tended to be self-perpetuating. For example, when unregulated buses started compete against the railways, which were regulated, regulation was extended to buses.

Nationalised industries developed as a way of dealing with the problems caused by regulation and its rigidities. One of the first tasks of the nationalised bodies was to bring the industry structure up to date. Indeed, it is arguable that without nationalisation there would not have been a national network later to be privatised and opened up to competition. Thus in electricity, it was the nationalised Central Electricity Board that created the national network, without which today’s competition in electricity supply would not have been possible. In road freight, it was nationalisation that created a genuine national road transport network that survived when the industry was privatised in the 1950s.

Our review of history supports the main thesis of this paper: that deregulation and the promotion of competition wherever feasible is much more effective at delivering investment and enhancement of service delivery to consumers. It also highlights two key temptations that lead to creeping regulation: the justification for regulatory intervention in terms of a perceived “public interest”; and the danger that when competition starts to develop in a regulated sector regulation extends to the competitors of the regulated company. Regulatory creep of this kind has been observed most recently in the growing intervention of Oftel in the mobile market as it

has developed as a serious alternative to fixed line telephony. Regulatory creep of this kind is to be avoided.

There is, of course, usually little option but to regulate the natural monopoly part of these sectors: the pipes and wires part of the business. The only sector where there was the possibility of avoiding this is in telecoms, where the concept of competing networks was tried in the UK (but not elsewhere) but failed. But this natural monopoly element needs be defined as narrowly as possible, and competition introduced into as many parts of the sector as possible. There are many parts of the utility sectors where competition can prevail. The presence of natural monopoly should not be used as a reason for spreading the regulatory net more widely.

It is especially to avoid undue sector-specific regulatory intervention because reliance can be placed on general competition policy. Competition policy today is more powerful than it has ever been. Where competition is reasonably robust or where it can develop to be so, it is usually better for sector regulation to withdraw and reliance placed on competition policy. This is because, as noted above, sector-specific regulation can often be unduly stultifying and tends to inhibit healthy market developments. Moreover, there is a double jeopardy in being subject to both sector-specific price cap regulation and competition policy. That double jeopardy in itself discourages investment and innovation. Regulators may be tempted to rely on licence conditions as an easier way to regulate, but wherever possible this temptation needs to be resisted.

Our history also highlights the need to get the industry structure right in order to isolate the natural monopoly element (and that doing this requires some care). Having done so, sector-specific regulation through licence needs to be limited to the natural monopoly part, and competition policy relied on for regulation of the rest of the sector.

3.1 The Scope for Regulatory Withdrawal

Despite the lessons from history highlighted in the previous section, there is a prevalent view that regulators have no interest in withdrawing from the regulatory process, just as turkeys do not vote for Christmas. The view is that regulators will maintain regulatory structures in place and indeed expand them. Regulatory creep is the order of the day. Regulation is bound to become ever more onerous. In support of this pessimistic position, it is possible to point to the budgets of the regulatory bodies, which have continued generally to grow.

However, it is possible to tell a more optimistic story about the scaling back of regulation in a sector which, at first look, is unpromising: the UK gas and electricity sectors. In these markets, GEMA/Ofgem has announced the removal of all price caps on the supply price of electricity in the UK market, with effect from the end of April 2002, matching the earlier withdrawal of supply price caps in the gas market. The result is that less than 25% of the UK gas and electricity market will be subject to price control, compared with 100% at privatisation. What remains subject to price controls is the transmission and distribution wires and pipeline part of the industry – the monopoly part of the business for which price controls are required to avoid the private exploitation through higher prices of a monopoly position. But even this part of the business is being chiselled away, with the introduction of competition in metering and in the provision of capacity expansion⁴.

This withdrawal of price controls has occurred despite considerable pressure from consumer groups and some from parts of Government to maintain controls to protect disadvantaged groups of consumers: thus Energywatch, the statutory consumer body for gas and electricity, has argued for the retention of price controls for pre-payment meter customers, on the grounds that such customers tend to be the fuel poor, a relationship which does not stand up empirically. However, GEMA/Ofgem has resisted such pressures.

An important factor behind this resistance has been the very clear statutory duty placed on GEMA/Ofgem. The Utilities Act requires GEMA/Ofgem to safeguard customers where appropriate through competition. This statutory guidance creates a presumption for withdrawal wherever effective competition can appropriately be established. With this primary duty, a statutory regulatory board has a strong presumption to facilitate the emergence of competition. Since competition is throttled with price controls, this creates a strong presumption to withdraw from price cap regulation.

⁴ Interestingly the monopoly parts of the two sectors are coming together with the merger of NGC (the electricity network) with Transco (the gas pipeline business). Given the increasing importance of the technical interconnections between the two networks, this makes both commercial and regulatory sense.

Is this the right statutory framework? We would argue that most definitely it is. Regulation, however well it is conducted and however good the regulator(s), will always get it wrong. And the danger of regulation, just as for the record of nationalised industries reviewed above, is that centralised regulatory decisions can spread mistakes widely. The justification of regulation is that in some well-defined contexts (eg the presence of a private monopoly able to price to extract monopoly profits in the absence of regulation) regulation, for all its imperfections, works better than the untrammelled private market mechanism. But outside these well-defined cases, the danger is that regulation does more harm than good. In general, promoting robust competition, where that is feasible, is generally preferable to regulation. Hence the benefit of a statutory framework that places on the regulator the imperative of fostering effective competition wherever possible.

This is reinforced by the links between innovation and competition. The general evidence is that competitive markets promote innovation. (See Porter.) This is not a surprising conclusion. Regulation, or state control, usually involves the application of a single solution or response to a given problem. Markets, by contrast, usually work by allowing a number of different solutions to be tested against each other. And in general, a multiplicity of minds and ideas is better than one. Many minds bring innovation, the mainspring of economic growth. This is the essence of the case against central planning. Innovation, and hence economic growth, is stifled by central planning. And it is also stifled by regulation. The exception to this rule is where market failure is pervasive, as for example in the case of monopoly. The regulation, with all its weaknesses, can in good circumstances improve on the market outcome. But this depends on market failures being appreciable.

A clear lesson from this analysis is that Ofcom's task will be made a good deal simpler if it can have a clear statutory obligation to achieve its objectives wherever possible through competition. That can create the right incentives to withdraw from regulation wherever possible. In our view the legislation governing Ofcom should incorporate this central obligation.

3.2 The Influence of Industrial Structure

The withdrawal of regulation is only possible with the right industrial structure. The withdrawal from price cap regulation that we have observed in gas and electricity in the UK was feasible only because of the separation of distribution from supply. This step was essential to the creation of effective competition in supply. That in turn allowed GEMA/Ofgem to withdraw from price controls on supply, despite criticism.

It is important to note that the creation of effective competition is by no means a trivial task. Indeed it is complicated and may well take time. Thus the creation of the

mechanisms and protocols for retail competition in electricity consumed a great deal of time and money. The reform of wholesale electricity trading arrangements (NETA) to introduce effective wholesale competition also cost a great deal of money and resources, given the difficulty of establishing a fully fledged and wholly redesigned market in one step. The extension of retail and wholesale competition to Scotland is a further necessary step. Each of these policies to create effective competition necessarily costs a great deal of up-front cost. But these costs are generally one-off, not ongoing. Provided the market regime is well conceived, the net benefits of well conceived regulatory interventions should show up through competition.

We may see a contrasting case for both rail and telephony. Rail illustrates the importance of getting effective competition operational. The primary weakness of rail privatisation was the creation of a complex industrial structure, but one that in almost all areas could not deliver competition. Telephony illustrates the opposite problem. A sector that could well have delivered effective competition failed to do so because of the absence of an industrial structure that would do so. Getting the industrial structure right is crucial.

It is for that reason that we believe that the fastest and best route to regulatory withdrawal in telecoms is for BT to separate its distribution business from its business of supplying services. That would make it much harder for Oftel to defend its current regime of regulatory intervention, which is in danger of spilling over into regulatory micro-management. A dominant vertically integrated player provides the perfect justification for regulatory intervention. Separation, if BT follows the example of British Gas in the mid-1990s, facilitates, though it does not ensure, regulatory withdrawal. On this analysis, the reason that regulatory withdrawal has happened in electricity and gas but not in telecoms despite apparently more propitious circumstances for competition, is because of the failure in telecoms to address the issue of vertical integration and the separation of supply and distribution.

Oftel's basic concern is that BT leverages its dominance arising from the historic natural monopoly in the local loop into retail services. The two main options for moving forward are:

- to continue regulating a vertically integrated BT to prevent it from leveraging its advantage until competition arrives (the current strategy)
- for BT to separate its wholesale and retail activities in order to remove the motive for detailed regulation and to stimulate competition and investment.

The problem with the first is that the prospect of continuing regulation itself operates as a deterrent to competitive entry and has created a self-perpetuating perceived need

for regulation. As we have seen in other sectors, vertical separation can provide an effective way to break into this vicious circle.

The division would broadly reflect the existing split between the Retail and Wholesale divisions of BT. Retail telephone services do not have natural monopoly properties, so there is no need to regulate them. BT Retail would join existing competitors (such as One.Tel and British Gas Telecommunications) in selecting the most cost-effective network provider at each stage in a telephone call, and would therefore escape regulation. Regulation of BT Wholesale could eventually be withdrawn from areas of the network where its natural monopoly is eroded. The prospect of de-regulation could encourage entry into core network activities, especially in the light of continuing pressure on the capacity required to service the growth in demand from flat rate internet access products⁵.

Vertical separation of BT could hold out the prospect of the progressive de-regulation even of local loop services in the event that that local wireless, cellular, and cable offerings become able to provide substitute services at equivalent costs.

At this stage there would be an asymmetry between the vertically integrated cellular networks and service providers. Once the industry was established as clearly competitive it may be possible to allow a merger between BT Wholesale and a retail provider (not necessarily BT Retail.)

3.3 *Regulatory Philosophy and Regulatory Creep*

Achieving the right industrial structure is a necessary, but far from a sufficient, condition for regulatory withdrawal. It is also crucial that government and government agencies have the appropriate regulatory philosophy that recognises of government failure as well as market failure.

Many see the justification for government intervention or regulation as market failure. But it is not. There are two criteria: the presence of a market failure and the absence of government failure. Since government intervention is often ill-targeted and ineffective, the second of these criteria rules out a great deal of would-be intervention. Intervention is justified only when the market failure is considerable, so that blunt government intervention can be helpful; or if the intervention is very well targeted. Well-targeted intervention is especially difficult in fast moving, innovative sectors such as telecoms.

⁵ See for example, OfTel *Consultation by the Director General of Telecommunications on amendments to the FRIACO Direction*, 28 January 2002.

Failure to recognise this point can readily lead to regulatory creep. Clever people in the DTI or in regulatory offices can readily identify any number of areas where it can plausibly be argued that the market is not working ideally, especially if the benchmark ideal is the textbook version of perfect competition. This can lead to any number of regulatory interventions. Each in themselves is well-intentioned and may work well in isolation. But overlaying too many interventions stifles the operation of the market and generates unforeseen interaction effects between the various interventions. The result can well be incoherence and stagnation.

What is needed instead is an appreciation that effective and robust competition is not perfect, but is better than any regulation-managed alternative. Regulators need to be sparing in their interventions and be willing to withdraw. If that has been accomplished in gas and electricity, then it should be feasible in telecoms.

This is particularly the case given the state of the telecoms industry after the 3G auction and the slump in telecoms shares. What should be avoided is what Oftel can be seen as pursuing, to judge from its recent review of mobile: the transfer of an interventionist regulatory approach designed for fixed line telephony into the mobile market. Regulatory creep can tie down an otherwise dynamic and flexible industry and inhibit investment and innovation to the detriment of consumers. Interventions intended to help the consumer can end up having the opposite effect. We consider this in more detail in the following section

4 Investment, Profitability and Price Cap Regulation

In the previous section, we have highlighted the dangers of creeping regulation. In this section, we examine these dangers with specific reference to its impact on investment and innovation. Appendix 2 of this paper sets out these issues in considerably more detail in the context of the mobile telephony sector.

First, let us consider the question of whether the presence of excess profits is necessarily a signal of market failure that requires a regulatory response, such as price cap regulation. Consider a sector (which could be mobile telephony or some other sector such as aircraft, pharmaceuticals, and cars) in something close to a competitive equilibrium, ahead of a major potential jump in technology (for example, 3G). Companies in the sector earn roughly the competitive normal rate of return on pre-existing investments. But with the jump of technology, they have to weigh the case for investment to realise the potential of the new technology against the risks of its failure. Realising the potential of the technology is not simply a question of the success or otherwise in technology itself, but also requires success in operational delivery and in persuading customers to adopt the new technology on sufficient scale to be commercially viable. In assessing such a major strategic investment, a company must weigh both the prospective returns and the risks of failure. It will proceed only if the expected returns, appropriately risk-adjusted, are sufficient. It is precisely these considerations of the balance between risk and return that have preoccupied the leaders of the mobile communications sector as they planned (and continue to plan) their investments in the new 3G technology.

Consider, now, the two extremes of a spectrum of possible outcomes. At one extreme, the leap in technology may be a failure, whether because the technology cannot deliver on its promise or because customers do not adopt it. In this case, the company will fail to get a return on its investment. It will therefore languish with a below normal return on investment for a lengthy period of time, or undergo a capital write-down and restructuring. At the other extreme, the new technology may be a roaring success. In this case, the company will enjoy a return on its investment well above normal. This high return may well continue for some considerable time, until other players adopt the new technology and catch up with the market leader. In effect, the market leader enjoys a temporary monopoly advantage by virtue of their successful introduction of the new technology. Examining the company's rate of return *ex post* after a leap in technology gives no information as to the degree of competition that it faces, but rather about the success of its investment in the new technology.

Now consider the case of a whole sector simultaneously investing in a new technology. Relative returns to companies in the sector will depend on their relative success in introducing the new technology: some companies will do better than others

and enjoy a higher rate of return. But overall rates of return for the sector as whole after the investment will depend on the overall success of the new technology. If the new technology is a failure, wholly or partially, the sector will suffer depressed returns for an extended run of years. If it is a success, the sector will enjoy high returns. These different outcomes for the sector as a whole are wholly consistent with effective competition in the sector: in the wake of a major technological jump, no inference concerning the degree of effective competition can sensibly be drawn from the overall rate of return in the sector.

The key point is the distinction between the *ex post* realised rate of return and the *ex ante* anticipated rate of return. A high *ex post* rate of return may well reflect a fortunate out-turn on a risky investment, and may therefore not be evidence of a lack of effective competition, just as a winning run on the horses may just reflect good luck, rather than skill in judging form or in fixing races⁶.

Given this analysis, there is evident danger in a regulator looking at *ex post* returns to judge the state of competition and the to justify regulatory intervention. A sector may well exhibit above normal returns after the implementation of a successful innovation, but that is no reason for a price cap since it is simply the workings of a normal competitive market. If a regulator caps such returns, then he is limiting the upside potential of a risky investment. If such regulatory intervention becomes anticipated, then the *ex ante* appraisal of any investment will take this into account. The consequence will be that the *ex ante* expected return from the investment, allowing for the regulatory intervention, will be depressed. This may render unattractive otherwise profitable investments and innovations.

The consequence will be a serious dampening of investment and innovation. Regulatory intervention will then work to the detriment of customers by depressing innovation. If the sector is reasonably competitive, then it is better to eschew regulation and rely on competition to safeguard the interests of consumers.

⁶ In an industry where innovation is incremental in character (for example, in pharmaceuticals or cars where individual innovations are occurring all the time), this phenomenon is less evident: because of the averaging of returns across a range of innovations, profits are likely to average to something close to the normal competitive return, except where successful innovations are clustered. But where an industry is subject to a major technological shift, average returns will be crucially dependent on the success or otherwise of that new technology.

5 *The Statutory Framework for Ofcom*

In this section we address two principal issues concerning the future statutory framework for Ofcom. The first concerns the lessons of our previous analysis for the statutory duties of Ofcom. The second concerns the vexed question of restrictions on cross-media ownership.

5.1 *Ofcom's Statutory Duties*

We have argued above that the clarity of Ofgem's single primary statutory duty is helpful in giving an emphasis to achieve regulatory objectives where appropriate through competition. This would suggest the desirability of giving Ofcom a similarly clear and unitary statutory duty. The difficulty is that, whereas Ofgem was established quite clearly as an economic regulator, Ofcom is inevitably both an economic regulator (the role that will be largely, though not exclusively inherited from Oftel and the Radiocommunications Agency) and a content regulator (a role largely, but again not exclusively, inherited from the other regulatory bodies being incorporated into Ofcom, namely the Independent Television Commission, the Broadcast Standards Commission and the Radio Authority). Inevitably Ofcom is going to have to balance the trade-offs that will from time to time arise between these two parts of its role. Since it is not easy to give one of these objectives primacy over the other, it is not at all easy to write in to the statutory duties how Ofcom should strike the balance when the conflict does arise. In particular there does not seem to be a way (certainly we have been unable to devise one) whereby Ofcom's primary duties can be collapsed into one⁷.

Notwithstanding this point, it is important that we avoid a shopping list approach to primary duties. It will be helpful if the final legislation incorporates two primary duties, reflecting the two main functions of Ofcom outlined above. We would suggest a drafting such as:

1. To promote the economic interests of consumers (current and future) by ensuring economic efficiency in the telecommunications, broadcasting and media sector.
2. To promote the political and cultural interests of consumers (current and future) by ensuring that they have access to a diversity and pluralism of content provision in the telecommunications, broadcasting and media sector.

⁷ We exclude the trivial and unhelpful option of linking two distinct duties with an "and" and writing them as one.

In some areas of its regulatory activity (for example, much of the work inherited from Oftel), the first objective will be dominant; in other, the second will dominate. But there will be areas where both impinge, and it is then that the Ofcom Board will have the difficult task of balancing one against the other.

The two objectives set out above could be collapsed into:

- 1a. To promote the interests of consumers (current and future) by ensuring they have access to a diversity and pluralism of content provision, economically supplied and distributed, in the telecommunications, broadcasting and media sector.

As already noted, this is more succinct, but does not eliminate the need to consider and determine the trade-offs between economic and content regulation.

In our view, a second key element is needed to support the achievement of these two key objectives. We propose that Ofcom should be charged with achieving its regulatory objectives wherever possible through competition. This is crucial if Ofcom is to avoid the dangers of regulatory creep, which if allowed to occur will result in Ofcom becoming overloaded and make it difficult, if not impossible, for Ofcom to focus on the crucial regulatory interventions where it can do good.

It is important to note that competition, where it is feasible, is likely to promote both economic efficiency and diversity and pluralism. Thus it is broadly consistent with both proposed primary duties. This is not to say that there will not be circumstances where the requirement for diversity cannot be achieved through competition, and other regulatory measures are required. But that is also true of the requirement for economic efficiency where, for example, there is an essential facility that cannot be provided competitively. But the key point is that competition can be supportive of both economic efficiency and diversity, and should therefore be allowed to work to achieve these primary duties wherever that is feasible.

It will be noted that we have used a stronger form of words (“wherever possible”) than used for GEMA in the Utilities Act (“where appropriate”). The reason is that Ofcom will have the complication that GEMA does not have of coping with two primary duties. This makes the regulatory task harder. We therefore believe that it is important that competition is used wherever possible to achieve regulatory objectives. There needs to a presumption of regulatory withdrawal wherever possible, because this will guard against an overly interventionist regulatory stance.

In this sector, if competition can achieve both economic efficiency and diversity, then there is a double pay-off. For that reason, it is important that the competition criterion

is defined rigorously. Indeed we would argue that there is a strong case for defining it more stringently than in standard competition policy.

5.2 *Ofcom and Cross-Media Ownership*

A key issue for the forthcoming Ofcom bill is the treatment of media ownership. Should it be treated from the perspective of competition policy just like other sectors; or should it be treated separately.

In our view, it is evident that the media should be treated differently. We are concerned with concentration in the control and ownership of the media for the standard competition reasons that apply in other sectors: undue dominance in control and ownership can lead to behaviour detrimental to consumers, whether in the form of raising price or restricting choice and innovation. But we also have an interest in avoiding undue dominance in media control and ownership for other reasons central to the future of the UK as a pluralist democracy. Diversity in media control and ownership is desirable because democrats value pluralism for its own sake. A healthy democracy thrives on the possibility of the promulgation of a multiplicity of views and analysis. It is therefore strengthened by diversity and weakened by concentration.

It follows that we should be more concerned about concentration in the media than in other sectors. We should value diversity in the media much more than in other sectors, whether baked beans or cars. More stringent criteria for avoiding concentration should apply to the media than to other commodities. The media require distinctive and tougher competition criteria. It follows that the Ofcom bill cannot just apply standard competition and merger criteria to the media. Distinctive criteria need be developed. These need to be thought through.

One possibility is as follows. Clearly we can examine the state of competition in each distinctive media segment: newspapers, television, radio, (in these cases distinguishing national and local provision), internet information services, and so on. One option would be to apply standard competition criteria to each of these market segments, but to apply tougher criteria to overall media ownership. Thus one may be content to see service providers with no more than 40% market share in each of these segments, provided that there is not undue concentration in the aggregate. This recognises that most people can and do access multiple media sources. There is a simplicity in applying standard competition criteria to each media segment, and restricting the special treatment of the media to the aggregate sector.

If this is accepted, what then are the competition criteria for the aggregate sector? One simply presented concept would be to apply criteria that are twice as strict for the media as for other sectors, reflecting our dual interest in competition and pluralism. (There is no very rigorous logic behind this proposal, since *how* much tighter

competition policy should be for the media is in the end a matter of judgement. The case for this simple formulation is largely presentational.) Thus we would start to be concerned at an aggregate market share of 12½% (rather than 25%) and have a presumption against any share that exceeded 20% (rather than 40%). There are some technical issues in aggregating market data across the different media segments, but although this brief note does not address them they can be overcome.

The merits of the proposals of the last three paragraphs can clearly be debated. However, if weaknesses are found in these specific proposals, this should not detract from the broader proposition. Because we value pluralism as a key element of our democratic system, and because the media are crucial to this pluralism, we should more rigorously defend against concentration in the media than in other sectors.

This argument is consistent with that of the previous section. It is possible to use competition to achieve diversity and pluralism in the media. But that competition needs to be more diverse than in other markets where the sole concern of competition policy is economic. In its regulatory approach, Ofcom will need to have concern both for economic considerations and for the political considerations of pluralism and diversity. Not surprisingly, this should entail a different application of competition policy than the standard. This needs to be reflected in final legislation.

Appendix 1 A Brief History of Privatisation, Regulation, and Competition Policy

Our network industries have nearly always created policy concerns, relating to monopoly, “unfair” pricing, investment, and performance. The many approaches that have been tried provide some insights into the underlying issues. A consideration of the history of these industries suggests that demands for greater or tighter regulation need to be grounded in the clear identification of a natural monopoly. The experience of regulation in the pre-nationalisation era was that it frequently led to:

- pricing rigidities;
- inflexibility in industry structure creating barriers to rationalisation;
- inadequate investment; and
- poor performance.

Once introduced, regulation tended to be self-perpetuating. For example, when buses started compete against the railways they too were regulated. Nationalised industries developed as a way of dealing with the problems caused by regulation and its rigidities. One of the first tasks of the nationalised bodies was to bring the industry structure up to date.

In this Appendix we look in turn at:

- The origins of regulation before the Second World War
- The era of the nationalised industries
- Privatisation and the re-birth of regulation
- Introduction of competition and withdrawal from regulation

A1 The Origins of Regulation

When did it all start? Sir Christopher Foster, in his excellent study of the subject written during the height of the privatisation era, looks back as far as the toll roads and canals of the eighteenth century. The latter were a form of public-private partnership of the “build own operate transfer” variety. Typically, tolls were regulated so as to provide a 10% rate of return, with the initial capital cost earned back over a twenty-one year franchise, after which they passed into public ownership. The “stranded asset” problems familiar today arose as canals entered the transport market and were able to undercut the toll roads. In turn the canals were undercut by the railways.

Railway problems

But railways have always been a problem. They were too expensive in building to be paid back within twenty-one years so the rights to the permanent way were typically

granted in perpetuity. Furthermore, there was initially less concern that they would be monopolies, as there was potential for building along different routes. Viewed as a dynamic force, the railways were an important instrument of modernisation, occupying a similar role to telecommunications today. Although they were a pro-competitive force from the perspective of the market for transport, the degree of competition varied greatly across narrowly defined markets for rail transport.

These micro markets consisted firstly of different origin-destination pairs, and secondly the carriage of different items (including passengers occupying different kinds of carriages.) For example, the route between London and Southend in Essex was served by Great Eastern Railway inland via Brentwood and Shenfield, by the coastal London, Tilbury and Southend line, as well as the General Steam Navigation company sailing from central London to Margate and Ramsgate vi Southend. But London-Brentwood or Brentwood-Southend were (are) served only by the one company. The costs of operations and infrastructure contributed to the *joint* outputs in the separate micro-markets. This jointness of costs was a major source of regulatory problems.

Where competition occurred it could sometimes be “ruinous” to both parties. This was partly because the investments in railways were so large and so irreversible.. Some individuals made money from threatening entry, and others from promoting railway schemes, as in Anthony Trollope’s novel *The Way We Live Now*. In general one did not make money from investing in railways.

Not surprisingly the joint costs tended to be recovered more in sub-markets where passengers and businesses had less choice. Those getting less good deals and were apt to complain about discrimination and unfairness. Discussion of how best to regulate the railways took up a great deal of parliamentary time and effort during the latter half of the nineteenth century. Nationalisation was considered and rejected.

Concern with discriminatory rates led, towards the end of the century, to the regulation of railways becoming an industry itself, complete with prosperous lawyers finding ways to make and refute objections to particular charges. As there was no concept of a tariff basket, and there were millions of rates, there were lots of opportunities to argue cases. As it became clear that objections to particular were hard to prove, the burden of proof of reasonableness was shifted to the railways.

The policy eventually adopted was to impose a system of regulation that required companies to provide cost-based justifications for tariff changes, which no doubt assisted the development of accounting methods but did nothing to advance economic understanding. Economic theory is quite clear: where costs are incurred *jointly* across several markets there can be no unique allocation based on cost considerations alone.

A standard example of joint production – to be found, for example, in Professor Milton Friedman's *Price Theory* – is that of sheep. A given breed will tend to produce meat and wool in fixed proportions. In a competitive market farmers will just recover their costs from the sale of the two items, but the proportions depend on relative demands. There is no reason to suppose that the price per pound would be identical. Most of the revenue would come from the wool in a country of vegetarians, and conversely in a country where it was too hot to wear wool and barbecued lamb chops were the favourite food.

Since the presence of joint costs makes the reasonableness or unreasonableness of particular charges in a micro market impossible to prove over a wide range of prices the regulatory framework was a recipe for stagnation. Once established, charges became unresponsive to changes in demand or cost. The incentives to invest or to develop new technology were blunted.

This era of regulation by commission was not a successful one for the railways. The demands of wartime during World War I made it clearer that the railways were not performing as they should. The post-war solution was merger and consolidation to get rid of the “ruinous” competition that was attributed by some as the cause of the rail problem. The Railway Rates Tribunal which was set up at the same time, was also aimed at reducing competition. This was the era of the government-sponsored cartel.

By this time the railways were facing competition from the roads. Instead of being a source of comparative advantage for the country, capitalising on our early start, they were instead characterised by chronic lack of profitability, low investment, a poor safety record, low wages and inadequate performance. The internal combustion engine brought road transport into the market, taking away market share (and also limiting the railways' ability to raise fares). Although one might suppose that the emergence of competition provided an opportunity for its abolition, regulation was in fact extended to the bus and coach market, where it persisted until 1986.

Other industries

The water, gas, and electricity industries needed Acts of Parliament in order to lay pipes or wires or to get the right to transport the commodity through others' property (wayleaves). They were also natural monopolies, and in the early days the normal way to control prices was to limit dividends to 10% of the capital.

The problem with this kind of regulation is well known: as long as the allowed rate of return is not less than the true costs of capital there is an incentive to expand the asset base. To solve this problem, officials at the Board of Trade invented the sliding-scale rate of return. Increased dividends were allowed to the extent that companies had

reduced their charges. If they increased charges they must reduce the dividends. This was voluntarily adopted by about half the companies in the last quarter of the nineteenth century, but succumbed to the effects of inflation during the First World War.⁸

Pre-war regulation of these industries was typically carried out at local authority level. This was a source of rigidity. It made it more difficult for the local monopolies to merge and so was an obstacle to rationalisation and the achievement of scale economies, either in the production plants or in the building of equipment.

The Central Electricity Board and the London Passenger Transport Board were both attempts to deal with the chaos brought about by the fragmentation of the electricity industry and the plethora of transport undertakings in London. For example, at nationalisation, there were 130 generating authorities running 300 power stations. Although the National Grid was started in 1926 under the auspices of the Central Electricity Board there was no national market. On connection to the grid the CEB took over responsibility for the generators' capital and operating costs – with corresponding poor incentives for efficiency.

In transport, predatory behaviour and misleading consumers were among the symptoms of “wasteful” competition. Consolidation and public ownership allowed improvements to be made through timetable co-ordination, through ticketing, and the provision of reliable information.

A1.2 The era of nationalisation

For the railways the final straw was the low performance of the run-down, privately owned, regulated rail system during World War II, despite improvements brought about by central co-ordination. During the previous 20 years a new mechanism – the Public Corporation – had been found. It appeared that this could reconcile the desirability for independent, professional management, with the avoidance of what were perceived by many as the incompetence and anti-social outcomes associated with private ownership.

Nationalisation was also seen as a solution to the “regulatory problem”. In the case of gas and electricity it meant that regulation of tariffs could be taken away from local authorities. Consolidation and rationalisation was a major goal:

⁸ C.D. Foster, *Privatisation, Public Ownership and the Regulation of Natural Monopoly* Oxford: 1992, p 62. This section draws heavily on Foster's book.

“Gas was the most complicated of all: there were 269 municipal operations, 5 joint boards, 264 non-statutory organisations which in total supplied less than 2% of the market all of which, like electricity and the railways, were enmeshed in stringent statutory and other regulatory provisions to restrict profits and to regulate prices ad safety. And thus arose an additional reason for nationalisation... rescue from the complications that had grown up through successive layers of regulatory legislation and inconsistency in government policy...”⁹

Regulation of electricity during the war resulted in price below the cost of production. This was in part due to the use of historic cost accounting approach and the lack of investment during the war. The old plant did not carry sufficient capital remuneration to pay for the needed level of investment. At the same time, the low investment exacerbated the problem of excess demand. Even in regulated industries the law of supply and demand holds: if price is allowed to drop below the free market level, supply will fall below demand. It was necessary to raise price following nationalisation, a scenario repeated on privatisation of the same industry.

Nationalised industry governance and performance

Just as privatisation and liberalisation came to be viewed as a panacea for the nineties, the Morrisonian concept of the Public Corporation was seen in the 1940s as a model for managing the commanding heights of the economy. Herbert Morrison’s view of regulation and public ownership had developed as a young man pleading cases before the Railway Rates Tribunal. Independence from the government in managing its day-to-day affairs was to be combined with a public interest ethos:

“The Public Corporation must be no mere capitalist business, the be-all and end-all of which is profits and dividends, even though it will, quite properly, be expected to pay its way. It must have a different atmosphere at its board table from that of a shareholders’ meeting: its board and its officers must regard themselves as the high custodians of the public interest. In selecting the Board, these consideration must be in the minds of the Minister.”¹⁰

The policy input was to be provided by Ministerial guidance, implying a clear distinction between policy and management. The ancestors of the public corporation were the turnpike trusts, which provided the inspiration for the British Broadcasting Corporation, the Central Electricity Board, and the London Passenger Transport Board.

⁹ C.D. Foster, *Privatisation, Public Ownership and the Regulation of Natural Monopoly* Oxford: 1992, p 73.

¹⁰ H. Morrison (1933) *Socialism of Transport*. London: Constable, - quoted by J Vickers and G Yarrow, *Privatisation: An Economic Analysis* London: MIT Press 1988

All three had made important contributions to public well-being: for example the CEB, in its initiation of the National Grid, started reducing the inefficiencies of the decentralised approach to electricity generation and transportation. (The National Grid eventually also made competition in electricity generation feasible.) The LPTB had cut through the chaos that had been London's transport system. If London has a brand image, it is that created by the designers of the LPTB, and in some ways London has been living off the innovations of the LPTB ever since. .

Public confidence in the BBC and in its independence was maintained for decades. Only in recent years have the assumptions underlying the its operation been brought into question. This is due to the rapid pace of change in broadcasting technology and markets, and the BBC's response.

But there are always dangers in extrapolating a model that works in one context to another. Early success can lead to carelessness and a lack of attention to detail of how the model will work in practice. The successes of these early models were not generally repeated. The new nationalised industries, including the coal mines and the railways, did have some initial achievements apart from consolidation – for example, in improving the appalling safety records of the private industries, and the National Health Service was for decades regarded as a triumph of public operation (although GPs and the primary care sector operated as private contractors rather than employees.).

However, for the most part Ministers eventually found the temptation overwhelming to provide guidance according to short-run policy considerations: inflation one year, exchange rates the next, unemployment the next, and so on,. There were also more continuous concerns. For example, purchasing policy was informed by the hope that, in favouring British firms, the nationalised industries would provide a springboard that would enable advanced technology firms to sell their products abroad . (A hope not often realised: nobody seemed to want our unreliable nuclear power stations, or the trains that had been purpose-designed for the different regions of British Rail and therefore produced on too small a scale.)

At the same time ministers were frustrated at having chief executive escape proper regulation or oversight of their activities. In practice they had great freedom to pursue their own interpretation of “the public interest”. For example, expensive nuclear power development programmes were created on “economic” cases that were difficult for outsiders to evaluate properly.

Relations between the nationalised industries and government became a form of zero-sum game. Success for the Board was often measured in investment funds wrung out of the Treasury. It was the projected need for investment funds for British Telecom which prompted the first major “utility” privatisation. Electricity distribution did

fairly well in the run up to privatisation, although there are suspicions that some of the investment was gold plating. By contrast, the water industry inherited a large backlog of investment which was getting so serious that “raising the water rates” faster looked increasingly necessary if politically dangerous¹¹.

Meanwhile the Americans had been developing their own approach to controlling the “problem” industries, starting in the 1870s. This was based on private ownership, with tariffs controlled according to the achievement of a fair rate of return. One of the difficulties which emerged was the extension of regulation to everything with any kind of “public interest” component - an indefinitely elastic category which for some states included barbers’ shops. By the 1970s there was widening recognition that much of this regulation was inappropriate and generated significant costs for customers. This gave rise to a switch in policy towards de-regulation - in air transport, telecommunications, inter-state trucking and many other sectors.

At the same time there was broad recognition that in those industries where monopoly appeared inevitable, the method of regulation widely used appeared to give poor incentives for productive or economic efficiency. Cost of service regulation was suspected of creating incentives for excessive capital intensity and was expensive in terms of legal fees and the time taken up by highly qualified professionals in arguing rate cases.

A1.3 Privatisation and the re-birth of regulation

The early privatisations of the Thatcher government, such as Amersham International, built up confidence in the state’s ability to sell assets, and the public’s appetite for them, but gave rise to no particular concerns about market power.

In the early days the policy was largely motivated by macro-economic considerations, particularly concern with the Public Sector Borrowing Requirement as a source of inflation. At the same time the success of the monopoly privatisations was helped by the intellectual climate. Together with a willingness to learn from mistakes, this provided an explanation for past failures and a guide to the critical factors in moving ahead.

The role of theory

Although adherents to the Austrian view of the world, such as Professors Michael Beesley and Stephen Littlechild, were clearly important, mainstream economic theory

¹¹ Their name reflects the fact that these were seen as a kind of tax rather than payment for services. Raising taxes was seen as politically worse than allowing private companies to raise their charges.

also played a part. Regulation should be limited to where there was market failure; indeed, to where the consequences of market failure were worse than the consequences of government failure.

To this we should add the element of scepticism injected by public choice theory, which articulated in detail the sources of government failure. If economics can make such powerful insights by making the simplifying assumption that economic agents pursue their self interest, we should get similar insights by applying the assumption to civil servants, politicians and nationalised industry managers.

The basic insight of public choice theory is that the tendency to intervene does not necessarily reflect actions that are optimal from a social welfare perspective. Sources of government failure include those inherent in all voting systems, and those which result from the fact that there is generally a series of principal-agent relationships, each of which causes a loss of control. These easily explain why nationalised industries are not always effective at pursuing the public interest.

A proper application of both mainstream economics and public choice theory can inform judgements about appropriate ownership and control. There are two dangers to be avoided; seeing failure in all government activities leading to a reflex response “public sector bad, private sector good”; or seeing all apparent market imperfections as requiring intervention.

The developing understanding of government was complemented by greater sophistication in understanding the nature of competition and its contribution to economic well-being. There was more widespread acceptance of the view that one of the important aspects of competition is its dynamic nature. Competition allows lots of trials and error, with a process of selection ensuring that firms which meet customers’ requirements best are the ones most likely to survive. The tendency of price to converge to the cost of production is a long term one and profits do not necessarily indicate monopoly power. Transitory market power is not a problem – the profits generated provide a signal for market entry, and an incentive to others to create firms with competitive advantage by serving the customer better.

This is contrasted with the static, neo-classical, view of competition, which is more concerned with the relationship between price and cost. In this view, if price is above cost for more than a year or two this must be due to entry barriers and the exercise of market power, and this calls for intervention.

The advantage of the static view is that it provides us with a framework for analysing particular cases. Monopoly power does arise from time to time and a framework is necessary. The dynamic view of competition seems to carry no clear framework and could degenerate into a tolerance of genuine abuses.

The practical approach, typical of our mainstream competition bodies, is to use the static framework with care, and to supplement it with the ideal of workable, rather than perfect competition. Here particular attention is paid to the height of entry barriers, including those erected by the state or the firms themselves, as well as to the prohibition of collusive or anti-competitive behaviour.

For example, in the *Soluble Coffee* case Nestlé was found by the Monopolies and Mergers Commission not to be abusing its strong market position despite a very high return on its investment in instant coffee. Entry barriers were low, and the Nescafé brand's commercial success was a reflection of consumer tastes and company expertise rather than a cartel in the industry or activities to restrict the ability of rivals to compete.

This is not to imply, as some writings in Austrian economics might suggest, a weakening of competition policy along with other types of intervention. Professor Michael Porter of Harvard University showed that strong competition policies were associated with success in international business markets. Rather than picking winners and protecting fledgling firms an effective industrial policy would have a strong competition policy at its centre. (Although the Japanese case was widely quoted as an exception, a recent book has shown that the successful Japanese companies and sectors were those that did not co-operate with the industry agreements sponsored by the industry and trade ministry¹².)

These views underlay the two main pillars of the successful British experiment:

- Incentive regulation of natural monopoly activities
- Introduction of competition and the withdrawal of regulation elsewhere

Incentive regulation and the origins of price cap regulation

The first big monopoly privatisation was British Telecom. The company's modernisation needed a large investment programme which would have had a big impact on the PSBR which in turn would have had significant impact on the government's anti-inflation policy. Given the success of previous flotations, it looked as if selling the company was a feasible way of getting the investment without an inflationary impact, and the proceeds from the sale would reduce the PSBR. The only problem was that BT was a monopoly.

Stephen Littlechild, a member of the MMC and Professor of Economics at University of Birmingham, was commissioned to consider the best way to deal with the monopoly issue.

¹² Michael Porter, Hirotaka Takeuchi, and Mariko Sakakibara *Can Japan Compete?* McMillan Press, 2000

The alternatives – including US style rate of return regulation, no explicit constraints, and a complex “output-related profits levy” – were assessed against the criteria of: protection against monopoly; encouragement of efficiency and innovation; regulatory burden; innovation, promotion of competition; and the likely of the proceeds from sale. The local tariff reduction scheme, which came to be known as the price cap, or RPI-X, emerged as preferred. It appeared to combine good incentive properties with a relatively light touch. In any case, it would only be required for a few years, until competition arrived, as it surely would in good Austrian fashion once the government had released its hold on the industry.

RPI-X solved two of the problems that had led to difficulties in the pre-nationalisation era: allowing firms to raise price by RPI dealt with the issues of rising or falling general price levels; and the use of a tariff basket gave BT scope to vary individual charges within the cap, so it was not necessary to pronounce on every element of the charge. The initial value of 3 for X indicated that this was a sector where annual productivity gains of 3% above the national average could be reasonably expected.

At this point fortune smiled and it emerged that BT could get productivity gains much greater than the target. These gains enabled the company to finance its modernisation without increasing its borrowing. The price cap appeared to have remarkable incentive properties. To put it another way, how much were the other nationalised industries overcharging and draining the public purse as a result of their inefficiencies?

Selling off gas, water, and electricity soon followed. Few investors had any qualms about buying shares. The regulators were independent, and their offices non-ministerial government departments with a primary duty to ensure that companies could finance their obligations. There was a generous discount on the initial share offering.

Out-performance of price caps

For those sub-markets where competition had not yet developed the setting of price caps became a regular event. A price control was even added to electricity generation when there were concerns about the use of market power in bidding into the Pool.

An advantage of price cap regulation lies in the paradox that allowing companies to conceal information ensures that they eventually reveal it. Because the price is fixed for a period it pays companies, especially at the start of each control period, to bring their costs down towards the efficient level. These lower costs appear as increased profits. Shareholders benefit in the short term, but consumers then see the benefit at the next review.

As long as the system retains its credibility, consumers may even see some of the benefit earlier. To the extent that investors anticipate the possibility of out-performance, the cost of borrowing will decline. This passes through into lower revenue requirements and lower tariffs. On the other hand, if investors see the efficiency savings as unattainable, doubts will be cast on the future viability of the company and the cost of borrowing will tend to rise.

Given that regulators have a primary duty to ensure that companies can finance their obligations, one might think this is not a problem. Price caps have demonstrated their ability to deliver lower prices to consumers in the medium term whilst providing investors with the prospect of upside as well as downside risk.

However, the credibility of the regulatory commitment to the price cap contract is in question. With no more major privatisations in prospect, regulators now face pressures to keep prices as low as possible in the short run. Although outperformance of the price cap is a measure of the effectiveness of the price cap incentive, it has more often been interpreted as the regulator getting his sums wrong. i.e. being incompetent. A regulator who is conscious of public opinion or media will then see the danger from being too “generous” as greater than the danger from being too tough. After all it will take a few years before the investment shortfall is reflected in service quality. Once all the utilities are sold off, there is no need to pretend any more that investors can share the benefits of increased productivity.

We are then in danger of going back to where we have been for the last 150 years, either pre-or post nationalisation. Short term incentives on regulators and their responsible ministries to keep prices low outweigh the long term benefits of steady investment.

A.4 Introduction of competition and withdrawal from regulation

In the early days of privatisation the Thatcher government was nervous of introducing competition. Long distance coaches were an early success in liberalisation, with falling fares, improved service and (for a while) reduced concentration. In telecoms, Michael Beesley¹³ had recommended that BT’s leased lines be sold off, but this was rejected. The process of liberalisation began with the 1981 British Telecommunications Act. For the first time customers could choose from different models, as long as they conformed to technical specifications. The variety available soon mushroomed, although regrettably the British firms that had been nurtured by their relationship with BT did not do very well against the competition – a good example of Porter’s law.

¹³ M. Beesley, *Liberalisation of British Telecommunications Network*. HMSO, 1981.

In 1982 a single competitor to BT, Mercury was licensed, but BT continued to offer the full range of services. By 1990 Mercury had gained only 4% of the telecommunications market. Mercury was unable to gain enough of a commercial edge to overcome the disadvantage of having to rely on the vertically integrated BT for the last mile of connection. In 1991 the market was opened up and anyone was allowed to build a competing network with access to BT's.

British Gas was initially privatised as a single entity with monopsony power in gas purchases as well as monopoly over gas distribution and supply. The minister at the time was not committed to the policy of privatisation and liberalisation and the chairman was a strong minded individual who had spent his working life in the nationalised industry and who was reluctant to see the company split up. The company took several years and several references to the MMC before it eventually learned to operate as a private company serving markets with significant amounts of competition. There was even a battle over the separation of the gas showrooms which dominated the market for gas cookers. The difficulties with BG were an object lesson that helped to persuade Cecil Parkinson - the then Secretary of State for Energy - to break up the CEGB when privatising the electricity industry.

This required the creation of a new market – the electricity Pool – and new arrangements for the despatch of generating capacity. The latter was divided into three companies at privatisation. With the benefit of hindsight this split could have been more radical and led to a greater degree of competition. The introduction of even this limited degree of rivalry revealed how much technical inefficiency there had been during the era of nationalisation, despite the best efforts and exhortations of government. Staffing levels declined and availability of plant rose, more than doubling in the case of some nuclear power plants. As a result of entry and the sale of plant by National Power and Powergen, concentration levels have declined, and the introduction of new electricity trading arrangements in 2001 was accompanied by falls in wholesale electricity prices.

Vertical separation was also a key stage in obtaining competition in supply. In both electricity and gas supply, a programme of gradually lowering the consumption level at which firms could compete has been very successful in inducing entry to the business and reduced tariffs for final customers. Much was this as overseen by Professor Littlechild himself as Director-General for Electricity Regulation.

Where the introduction of competition has been successful, it is usually because a great deal of care has been taken to ensure that it would be sustainable and consistent with maintaining appropriate incentives and underwriting safety. Vertical separation means that new contractual and monitoring arrangements are put in place to replace the internal processes of the vertically integrated firm. Sometimes new institutions

had to be developed, such as the Electricity Pool, or metering arrangements put into place.

But by the time rail privatisation came along the approach of rolling out competition step by careful step was abandoned. There had to be competition everywhere from day one: frequent contests for train operating franchises, competition between train operating companies for access to the track and over the same routes, competition in providing track and signal maintenance, competition in rolling stock leasing. There were even two regulators: one for the track and one for the trains. The terms of the contracts between Railtrack and the train operating companies were not well designed to provide appropriate investment incentives, and neither were the lengths of the initial franchises. Mistakes were made in part because of the haste with which the whole process was rushed through.

Telecommunications and water now stand as islands of vertical integration in a sea of competition. Competition in water has proved difficult to create on a wide scale for a number of reasons: the monopolistic element (distribution) represents a higher proportion of the total cost than in energy markets; tariffs are regulated to being, on aggregate, below the cost of new entry; and selective competition, or cream skimming, could have severe adverse effects on the prices paid by the customers remaining with the high-cost company. Nevertheless, companies themselves have introduced a competitive element through the process of contracting out aspects of their operations.

In telecommunications, the main successes of competition have been in long distance and international calls, where prices have fallen to reflect fall in cost of and growth in capacity. Access to BT's network is problematical because when it sells network capacity BT is competing with its own customers.

This has major consequences for the way Oftel operates. Oftel understandably feels it must protect competitors against anti-competitive behaviour by BT (and by BSB in broadcasting).

This need pre-dated the present competition regime, with its more effective sanctions against anti-competitive behaviour. The result has been that competition in telecoms has been accompanied by an increase in regulatory activity. (Oftel publishes a quarterly newsletter giving details of all the cases it deals with. The December 2001 newsletter is 41 pages long and reports on 37 cases.)

In effect Oftel has become a sectoral competition body. However, it operates like no other competition body, in that the main policy instrument it uses is the licence. In theory Oftel has concurrent powers with OFT in relation to the Competition Act 1998. However, firms that go to Oftel with a competition complaint are likely to be told that

using the powers under the Competition Act is less effective than using powers under licence conditions. If Oftel finds a possible breach of a licence condition it can have a word with the dominant company concerned. This may be effective, administratively more convenient, and probably has lower direct costs of regulation than the alternative, which is to rely on the provisions of general competition law. However, there is a suspicion that the very convenience of the act encourages complaints to Oftel as a standard part of each company's competitive armoury.

One use of the licence condition is the use of price controls, and creeping price controls are a by-product of vertical integration. Although Oftel start off with a presumption that charges (e.g. for access) will be freely negotiated the realities of commercial life means that Oftel is used by the parties in effect as an intermediary. Oftel then provides guidelines on charging for access – for example the use of long run incremental cost. Then Oftel assesses the state of competition in the particular market. Depending on the state of competition it sets a particular price cap. The result is that we now have series of network price controls for services that are not natural monopolies. Entry is deterred because the basis of setting price is the static neo-classical model. LRIC is a concatenation of marginal and average cost. This makes entry into the market unattractive, and perpetuates both BT's dominance and the apparent need for continuing regulation.

The use of licence conditions in preference to the provisions of competition law is not confined to BT. The mobile operators also have licences for technical reasons (frequency allocation) and historical reasons (BT's ownership of MMO2). They are currently appealing against Oftel's attempt to impose price caps on their call termination charges. Mobile telephones are not a natural monopoly and should therefore be subject to general competition law rather than economic regulation.

Telecommunications are the twenty first century counterpart of the railways. They are widely perceived as the key to modernisation and as such there is a natural public interest in the performance of the sector. But we should know better nowadays than to think that this public interest alone justifies economic regulation. Careful consideration should be given to separation of BT so that economic regulation can be confined to those activities that are naturally monopolistic. Economic regulation of mobile telephone services should be ended.

Competition policy

This is especially true given the recent advances in competition policy. New Labour has also freed itself from those elements on the Left (unions in particular) that were opposed to strong competition policy. It has long been recognised that lack of competitiveness was cause of industrial failures. In the seventies and eighties there

was a growing realisation that competition policy could play an important role in promoting competitiveness¹⁴. “You do not train sprinters for the Olympics by fattening them up with donuts.”

Most of the innovations of the Thatcher era were in the early years. The Competition Act 1980 introduced a remit for the MMC to look at the efficiency of nationalised industries. The Tebbit doctrine that he would only decline mergers on competition grounds was not always endorsed by successors, but that approach is now being embodied in legislation.

The DTI has been active in improving competition policy. The Competition Act 1998 brought us into line with Europe and provided credible sanctions for the first time, especially in relation to cartels. The OFT has been strengthened, and has invested in training for all its staff in the competition policy area. The Competition Commission is shifting towards the appointments more experts panel members, including economists.

The Enterprise Bill will strengthen the competition authorities and take discretion away from Ministers in competition issues, including mergers. Cartel operators will be subject to stiffer sanctions, and those damaged by anti-competitive behaviour will be more able to seek redress in the courts.

¹⁴ See Michael Porter, *The Competitive Advantage of Nations*, [details]

Appendix 2 Subadditivity, Natural Monopoly, and Regulation

The demand for regulation often arises from the nature of costs. Network industries are characterised by what technical economist call cost subadditivity, which means that it is cheaper to produce A and B together rather than separately. If A and B look different (origin-destination pairs on the railway, calls and connections in telephony) we call this an economy of scope. If A and B are the same (more telephone calls) we call it an economy of scale, or in some situations an economy of density. Network industries typically have economies both of scope and scale.

The minimum efficient scale is the level of output at which economies of scale are substantially exhausted. If the level of demand is less than twice the minimum efficient scale it will generally be cheaper to serve the market with a single firm, so we have a natural monopoly.

The existence of a natural monopoly may lead us to regulate the firm if:

- the product in question is sufficiently important
- the present value of the costs of regulation are less than the present value of the cost penalty from allowing competition

Subadditivity usually means that there are some costs that are incurred jointly in the production of the different outputs. If the markets for A and B have different demand attributes this can produce some apparent pricing anomalies which leads to demands for regulation, which may not be justified by the presence of a natural monopoly.

Appendix 3 *The Particular Case of the UK Mobile Communications Sector*

The UK mobile communications sector faces a number of different pressures at the current time. It is in the process of rolling out investments for the new 3G technology, having paid very heavily for the acquisition of the new licences, and amid major uncertainties about the financial returns from such investments, reflected in the sharp fall in stock market valuations. It also faces major regulatory uncertainties, arising from EU regulatory initiatives, from the prospective introduction of a new UK mega-regulator in the form of Ofcom, as well as from Oftel's current enquiries into the degree of competition in UK mobile communications in general and into call termination in particular. In this section, we consider the nature of regulation appropriate to a sector subject to major technological change and very major investment. In so doing, it touches on a number of issues currently under consideration by Oftel. In examining these questions, we have benefited from a paper prepared by Andersens¹⁵.

The fundamental argument of this section is that regulation of the mobile telecommunications sector needs to be increasingly light in touch given the current environment of the industry. This is important for two main reasons. First, the sector is characterised by a level of effective competition comparable to other sectors not subject to regulation. For this reason, effective competition can be relied upon in large part to deliver benefit to customers. Second, it is a sector characterised by rapid technological change and high investments. Unduly intrusive regulation may well deter investment and impede technological advance, to the detriment of both customers and companies in the sector.

For both these reasons, light-handed regulation is called for. What is to be avoided is the transfer from the fixed-line part of the telecommunications business to mobile of intrusive regulation that may deter investment and innovation. This is key because the UK mobile communications sector has a past record of competition, in contrast to the history of monopoly in the fixed line sector. It is also key because the sector is of particular importance for the international competitiveness of many other key sectors in the economy, and therefore to the overall competitiveness of the UK economy (See Andersens, 2001, Section 2.1 – 2.10.) In particular, the development of new markets, such as m-commerce services, in which the UK has a potentially strong position, could be impeded by inappropriate regulation.

A3.1 Industry Structure

A key feature of the mobile communications sector is that its industry structure is largely determined by government policy through spectrum allocation. The presence of four mobile operators hitherto has been a direct consequence of the government

¹⁵ Mobile Communications: A Case for Special Regulation? March 2001.

decision to provide for four mobile licences with associated spectrum. The auctioning of five 3G licences similarly determines the industry structure of the market¹⁶. Thus any charge that competition in the market is unduly restricted by paucity of the numbers of competitors is one that must be laid at the door of government, not the industry.

In fact, as the Andersen report documents in detail, the UK mobile communications market is characterised by a reasonable degree of effective competition, even if it is examined as a sector in isolation, ignoring the point that mobile and fixed-line communications are to a degree substitutes, and possibly increasingly so. In terms of industry concentration, the mobile communications sector is a good deal less concentrated than a number of other sectors, for example, quality broadsheets and fixed line communications (Andersens, section 4.30-4.35). Price dispersion, one possible measure of effective competition, is no greater, and generally less, than comparable sectors. Moreover, the UK mobile communications market is the least concentrated in Europe. This is based on a snapshot of the industry at present: with the entry of Hutchinson 3G following the recent auction, concentration will fall further and competition will increase.

Thus in terms of industry concentration, two main conclusions emerge. First, the current and prospective structure for the industry is largely a product of government policy decisions on spectrum allocation. Second, comparisons with other sectors in the UK and with other mobile markets elsewhere in Europe suggest that industry concentration should not be a source of concern. In particular, the degree of competition in the sector suggests that intrusive industry-specific regulation is not warranted.

A3.2 Effective Competition and Profitability

Given this conclusion that there is effective competition in the UK mobile communications sector, it is important to understand the characteristics of a competitive sector, such as mobile communications, subject to rapid technological change, innovation and high levels of investment. In particular, it is important to understand the limits of what can be inferred from the overall level of profitability.

Consider a sector (aircraft, pharmaceuticals, and cars) in something close to a competitive equilibrium, ahead of a major potential jump in technology. Companies in the sector earn roughly the competitive normal rate of return on pre-existing

¹⁶ It would have been possible to increase the number of operators by auctioning six licences of 10Mhz instead of 2 of 15 and 3 of 10. This possibility is examined in the earlier report (Arthur Andersen, 2000). It also possible that the number of operators could be reduced through merger among the licensed operators, but this is most unlikely to be allowed and in any case this too is a decision of government policy.

investments. But with the jump of technology, they have to weigh the case for investment to realise the potential of the new technology against the risks of its failure. Realising the potential of the technology is not simply a question of the success or otherwise in technology itself, but also requires success in operational delivery and in persuading customers to adopt the new technology on sufficient scale to be commercially viable. In assessing such a major strategic investment, a company must weigh both the prospective returns and the risks of failure. It will proceed only if the expected returns, appropriately risk-adjusted, are sufficient. It is precisely these considerations of the balance between risk and return that have preoccupied the leaders of the mobile communications sector as they plan their investments in the new 3G technology.

Consider, now, the two extremes of a spectrum of possible outcomes. At one extreme, the leap in technology may be a failure, whether because the technology cannot deliver on its promise or because customers do not adopt it. In this case, the company will fail to get a return on its investment. It will therefore languish with a below normal return on investment for a lengthy period of time, or undergo a capital write-down and restructuring. At the other extreme, the new technology may be a roaring success. In this case, the company will enjoy a return on its investment well above normal. This high return may well continue for some considerable time, until other players adopt the new technology and catch up with the market leader. In effect, the market leader enjoys a temporary monopoly advantage by virtue of their successful introduction of the new technology. Examining the company's rate of return *ex post* after a leap in technology gives no information as to the degree of competition that it faces, but rather about the success of its investment in the new technology.

Now consider the case of a whole sector simultaneously investing in a new technology. Relative returns to companies in the sector will depend on their relative success in introducing the new technology: some companies will do better than others and enjoy a higher rate of return. But overall rates of return for the sector as a whole after the investment will depend on the overall success of the new technology. If the new technology is a failure, wholly or partially, the sector will suffer depressed returns for an extended run of years. If it is a success, the sector will enjoy high returns. These different outcomes for the sector as a whole are wholly consistent with effective competition in the sector: in the wake of a major technological jump, no inference concerning the degree of effective competition can sensibly be drawn from the overall rate of return in the sector.

The key point is the distinction between the *ex post* realised rate of return and the *ex ante* anticipated rate of return. A high *ex post* rate of return may well reflect a fortunate out-turn on a risky investment, and may therefore not be evidence of a lack

of effective competition, just as a winning run on the horses may just reflect good luck, rather than skill in judging form or in fixing races¹⁷.

In practice, of course, the picture is rather more complicated than our simple account so far, for two main reasons. First, investment in new technologies does not happen all at once, but gets rolled over time as a process of investment. Thus, mobile communications firms have made the *ex ante* commitment to 3G technology made in the form of the bids for 3G licences, but the investment in infrastructure for the new technology has yet to be rolled out. Second, it may take time, possibly a number of years, before the success or otherwise of the 3G technology can be fully assessed. This makes the sector particularly sensitive to the character of the regulation to which it is subject.

A3.3 *The Regulatory Challenge*

The preceding analysis poses difficult issues for regulation. A major role for regulation is to regulate the conduct of the owners of intrinsic monopolies or essential facilities to prevent them pricing so as to extract excessive monopoly profits to the detriment of customers and economic performance elsewhere in the economy. This regulatory task is not easy to perform, and most regulators will admit that regulation is, at best, a necessary evil to avoid the still worse outcomes when private monopoly is allowed free rein. But it is easier to perform in industries where technological change is relatively slow, and where the company to be regulated enjoys a long-lived monopoly position.

In industries subject to rapid technological change, the need for regulation is much weaker, if not absent altogether, and the conduct of regulation very much harder. As we have noted, in such industries, a high rate of return will depend primarily on the success or failure of the new technology, and a high return *ex post* may not reflect a high *ex ante* return. Although the success of the new technology will give rise to a temporary monopoly position and therefore high *ex post* returns, it is most undesirable to impose regulation to hold down such returns. This is for two main reasons.

First, the high returns provide a strong market signal for competitors who have lagged behind to emulate the industry leaders and adopt the new technology. As this happens,

¹⁷ In an industry where innovation is incremental in character (for example, in pharmaceuticals or cars where individual innovations are occurring all the time), this phenomenon is less evident: because of the averaging of returns across a range of innovations, profits are likely to average to something close to the normal competitive return, except where successful innovations are clustered. But where an industry is subject to a major technological shift, average returns will be crucially dependent on the success or otherwise of that new technology.

the rate of return will fall to the normal level. But the market signal of high profits is needed so long as emulation is incomplete. Second and more fundamentally, regulation of high *ex post* profits will deter innovation and hold back technological change. This is because downward regulation of high *ex post* profits resulting from successful innovation is unlikely to be matched by upward regulation of low *ex post* profits resulting from unsuccessful innovation¹⁸. This asymmetry in regulation caps the upside return while leaving the downside unchanged, and thereby lowers the *ex ante* expected return from innovation. It will therefore reduce the incentive to innovate, so that technical advance will be slowed down, to the detriment of customers.

The implication is that regulation can be deeply damaging in sectors subject to rapid technological change. While technological advance may result in monopoly positions for those in the vanguard of innovation, the resulting monopoly profits may merely serve to reward the innovative and fleet of foot. Moreover, it is important to note that such profits, as well as being potentially contestable, are likely to encourage others to emulate the leader, eliminating such profits as customers benefit from wider dispersion of the latest technology. And the consumer welfare resulting from rapid technological advance is likely to swamp any negative impact of temporary monopoly positions. In such industries, the market is likely to bring the necessary discipline, without the distortionary, innovation-dampening effects of regulation. It is important to note that this is all the more likely in the mobile communications sector, since the history of the sector is one of competition, in contrast to the fixed-line sector.

In our judgement, the mobile communications sector corresponds to the case described above. It is subject to rapid technological change and competition is effective¹⁹. In these circumstances, regulation needs to be light-handed to avoid slowing innovation and investment and the dispersion of new technologies. Regulation to cap prices to avoid excessive profits, of the kind familiar in the slower moving fixed-line sector, may well be highly counterproductive and work to the severe detriment of customers and to the overall competitiveness of the UK economy. In particular, a shift in the regulatory framework in a more interventionist direction, by effectively expropriating company intangible assets, could well breach the implicit contract on which basis the companies bid in the recent 3G auction. Such a shift could thereby deter investments in future technologies and possibly in the current 2.5G and 3G technologies, the focus of current investment.

¹⁸ It is, as yet, too early to tell whether investment in 3G technology will lead to high or depressed *ex post* profits. But the appearance of asymmetric price regulation of this kind could be damaging to investment in this and future technologies.

¹⁹ If it is judged that competition is not sufficiently effective, the answer is not profit regulation, or even conduct regulation, but rather the structural remedy of opening the mobile market to more players. As we have noted in Section 2, this remedy concerns the allocation of spectrum, which is the concern of government.

This conclusion points to the need for light-handed regulation. It does not argue for the complete absence of regulation of mobile communications. We examine the possible basis of such light-handed regulation in the next section.

A3.4 The Nature of Regulation

If the argument of the previous section (namely that concern about the overall level of profitability in the mobile communications sector is misplaced) is accepted, there may nonetheless be a case for regulation aimed at targets other than overall profitability.

Thus, for example, it is possible that all companies in the sector determine the price structure of the various services that they provide in such a way that makes it difficult for a particular service (e.g. content provision via mobile) to take off. This might arise because the price structure is such that there is an implicit cross subsidy from one service to another. Such parallelism in behaviour may be somewhat unlikely, but could arise either from explicit collusion or from a common set of assumptions in the sector that leads to common practices in price setting.

However, this type of competition problem can be dealt with by general competition law, and does not require sector-specific regulation²⁰. Explicit collusion is, of course, illegal, and since the introduction of the Competition Act in 1999 can attract fines up to 10% of turnover. The second, namely parallel non-collusive behaviour, is covered by the complex monopoly provision of the Fair Trading Act (1973) which remains in force. Although such practices do not attract fines, if they are found to be against the public interest, the Competition Commission can impose remedies.

Such behaviour should not be confused with another type of industry practice, namely the bundling of a package of mobile services together when marketing to the customer. Thus the customer buys a package typically including answering services, text messages, and increasingly in future access to mobile internet, bundled together with basic voice services. Oftel has advanced the possibility that it is sensible to distinguish separate markets within the overall mobile market, distinguishing the market for incoming and outgoing calls, different Communications products, such as short messaging and data services. This possible narrowing of the market definition for competition purposes runs contrary to previous Oftel practice that looked at the mobile market as a whole, not at sub-markets, and also runs contrary to the argument developed above that the mobile market is part of a broader market for telecommunications services.

²⁰ The competition powers can be invoked either by the Director General of Fair Trading or, under parallel powers, by the Director General of Telecommunications.

There is considerable danger in this approach. As the provision of services via mobile expands, this approach implies that it would be sensible to look at an expanding range of sub-markets, and to consider whether competition is effective in each of these sub-markets. Yet with the proliferation of services, it is likely to be in the interests of customers to have services bundled in manageable combinations. Provided that there is sufficient overall competition in the market (in contrast to the Microsoft case), such practices should not be a source of concern, any more than is the bundling of a range of different characteristics in a car. Indeed as this example brings out, such bundling makes sense. This is because almost no customers wish to choose among the full and confusing range of characteristics that make up a car, and bundling helps to present choices to customers in a way that helps them to reach well-informed choices.

The disaggregation of the range of services provided may also highlight another feature that may be interpreted as a sign of absence of effective competition but in fact is a characteristic of many competitive markets in practice, namely the phenomenon of price-discrimination. The various forms of price discrimination are outlined in the Arthur Andersen report (Sections 4.38-4.44). From its name, price discrimination sounds like something that is against the interests of customers. But in fact, economic analysis suggests that price discrimination is unlikely to reduce consumer welfare and is usually welfare enhancing overall. This is because cross-subsidies²¹ from those part of the product offering that attract those with a high willingness to pay to those parts that attract those less able or willing to pay usually increases market access to the product range, and this is beneficial. Thus the cross-subsidy from first and business class fares to steerage expands the number of people who fly. Similarly price discrimination in mobile service offerings is likely to enhance welfare.

For this reason, it is not sensible for Oftel to disaggregate the market for mobile services too far, especially if it then interprets the profitability of some sub-services as an indication of lack of effective competition. Thus, for example, it is not sensible to examine the margins on call termination without taking account of pricing in other parts of the bundled service, such as subsidies to handsets. If too great a disaggregation by Oftel discouraged mobile operators from discriminating in price, the result is likely to be a fall in consumer welfare. In a market of multiple product offerings where costs are in common, the profitability of particular sub-services is not a helpful indicator when examining the extent of competition.

A3.5 Conclusions

The conclusions of this Appendix may be simply summarised as follows:

²¹ Here cross-subsidy does not imply pricing below marginal cost, but rather concerns the way in which shared fixed costs are allocated across different products.

- The UK mobile communications sector is characterised by effective competition of a similar intensity to other sectors not subject to sector specific regulation.
- In a sector undergoing rapid technological change, price regulation of realised profit rates is likely to be counter-productive, discouraging ongoing innovation and investment to the detriment of customers. This is particularly the case when the sector is embarking on major investments to roll out 3G technology.
- Analysis of sub-markets within the mobile communications market may well reveal cross-subsidies from one service offering to another. Such cross-subsidies work to the benefit of customers as a whole. Regulation to influence the pricing of bundled service offerings is likely to work to the detriment of customers and to discourage product innovation.
- Given the importance of the mobile communications sector to the current and prospective competitiveness of the UK economy, these considerations point to the need for light-handed regulation of the mobile communications sector.

References

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