



ESSAYS IN COMPETITION POLICY

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August 2006

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### *Foreword by Peter Freeman*

Paul Geroski's time as Chairman of the Competition Commission (CC) was all too short; prior to joining the CC (first in 1999 as a member and from 2000 as a Deputy Chairman), Paul had published widely in his chosen field of economics, in particular on aspects of innovation. At the CC, he began to turn his attention to a more general view of competition policy. These half-dozen articles and speeches, produced over the two years prior to Paul's death, illustrate this development and they are published as a further tribute to his time as a holder of public office.

In the first essay, *Identifying Anti-Trust Markets*, Paul and his collaborator Dr Rachel Griffith show that market definition is neither a precise science nor a black art, particularly in relation to markets characterised by rapid technological development. The 'simple' algebraic appendix is presented with particular alacrity. By contrast, *Appealing to the Competition Commission* represents a foray into the less familiar world of regulatory procedures and structures, being a considered justification of the UK's two-tier institutional structure and the CC's role in it.

In *Is Competition Policy Worth It?* Paul forcefully argues the case that the policy benefits represent 'a large multiple' of the public sector costs directed to it. In *Profitability Analysis and Competition Policy*, he puts 'backward-looking' assessment of profits into its proper context and propounds 'forward-looking' profitability analysis as an aid to judging future incentives. *Competition Policy and National Champions* is a highly topical exposé of the economic harm that a national champion policy may produce and the illogicality of viewing industrial policy and competition policy as being in mutual opposition; essential reading in some parts of the EU today?

Finally, in *The View from the Clapham Omnibus*, Paul distinguishes Market Inquiries (intensive and focused) from Market Studies (wider in scope and a precursor to further action) as a guide to the current, sometimes confusing, terminology.

All in all these essays cover a wide range of highly relevant issues and are a further testament, if one was needed, to their author's pedagogic excellence.



Chairman  
Competition Commission

# IDENTIFYING ANTI-TRUST MARKETS<sup>1</sup>

with Rachel Griffith<sup>2</sup>

March 2003

## Why define markets?

The identification of markets is a standard feature of anti-trust investigations, and the substantive decision in many cases stands or falls on the precise market definition selected. Market identification is important because the computation of market shares matters in anti-trust cases, and this is so for at least two reasons. First, market shares are often used to help establish jurisdiction or, more generally, to sort out priorities for anti-trust agencies. Merger regulations usually specify a threshold level of market share which triggers an investigation for mergers above a given size; investigations into various monopolistic abuses are usually centred on the leading firms in a market; and, in most cases, the ability of an anti-trust agency to initiate an investigation, or impose penalties at the end of it, depends on whether the (alleged) offending firm enjoys a position of market 'dominance', ie enjoys a large market share. Second, market shares are sometimes used as an observable measure of market power, meaning that the fact of finding high market shares is sometimes taken to be tantamount to uncovering the existence of market power. Since, in practice, the important step in computing market shares is ascertaining the boundaries of the market, this practice tends to make the determination of market boundaries the substantively important decision in any attempt to identify pockets of market power.

The use of market shares to establish jurisdiction is a well-established procedure. It is based on the relatively uncontroversial notion that firms with small market shares are unlikely to do much damage to either consumers or to their rivals if they behave uncompetitively. However, the converse—that firms with large market shares will necessarily have the power to force through price rises or exclude rivals from the market—is not necessarily true (however plausible it might seem as a presumption). A firm with a large market share whose customers were (somehow) locked in to purchasing from it come what may for a long period of time might well be deemed to have market power. If, on the other hand, its customers are mobile—if they can easily switch to rivals' products or can easily be poached by rival suppliers—then it is likely that such power will evaporate in any attempt to use it. In this case, a firm might enjoy a high market share without enjoying much (if any) market power. To put the same point a different way, it is difficult to accept the proposition that market shares necessarily identify pockets of market power in the absence of an analysis of the full set of competitive forces that operate in the market. Since it is impossible to talk sensibly about *the full set of competitive forces that operate in the market* without having a fairly clear definition of what that market is, it is clear that identifying market boundaries must be the first step taken in the assessment of competition. It cannot, however, be the final step.

Thus, defining the market and identifying which firms operate within that market should be (and is) a central feature of anti-trust investigations. There is, however, a second step which needs to follow any identification of market boundaries, and that is an assessment of how

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<sup>1</sup>Paul Geroski and Rachel Griffith (2004), 'Identifying Antitrust Markets', in Manfred Neumann and Jürgen Weigand (eds), *The International Handbook of Competition*, Chapter 8, Cheltenham, UK and Northampton, MA, USA: Edward Elgar, pp 290–305. The views expressed in this paper are those of the authors alone and do not necessarily reflect those of the institutions—or any of the individuals in them—that they are affiliated with. We are obliged to Derek Morris and Geoffrey Sumner both for ongoing discussions as well as for comments on an earlier draft; Manfred Neumann made a number of helpful comments on the penultimate draft. The usual disclaimer applies.

<sup>2</sup>Institute for Fiscal Studies and University College London.

competitive that market actually is. This distinction is, of course, much easier to make conceptually than it is to do in practice: since identifying market boundaries effectively involves identifying the limits of substitution—on the demand and/or on the supply side—the process of evaluating competition and that of identifying market boundaries is, and will always be, inextricably intertwined. Nevertheless, the distinction is an important one, and we have organised what follows directly from it. In Sections II and III below, we discuss the standard method used by anti-trust authorities to identify market boundaries—the so-called SSNIP test—and explore a number of the complications which arise when using it. In Section IV, we turn to the second step and briefly outline what is involved in assessing the competitiveness of a market. We conclude with a few final observations in Section V.

## The SSNIP test

The standard test used by most anti-trust authorities to define markets is the so-called SSNIP test (sometimes also called ‘the hypothetical monopolist test’), which is designed to explore the consequences of a (hypothetical) **S**mall but **S**ignificant **N**on-transitory **I**ncrease in **P**rice on the profitability of the (hypothetical) firm that initiates it.<sup>3</sup> The test is effectively an iterative procedure, and works as follows:

- we start with the narrowest group of products and geographical area that is reasonable;<sup>4</sup>
- we then suppose that these products sold in that area are wholly monopolised, and ask what would happen if that (hypothetical) monopolist were to raise its prices by 10%;
- if that price rise is not profitable, then we add the closest substitute product (or geographical area) to the (hypothetically) monopolised bundle, and repeat the procedure;
- the procedure stops when we find a collection of products sold in a particular area which, if monopolised, would sustain a price rise of 10% by that monopolist.

Although it all seems simple enough, there are at least four aspects of this procedure that are worth a closer look.

First, at the heart of this test is the question of what might make such a price rise unsustainable. Clearly, when the hypothetical monopolist raises its prices, it will lose some sales as at least some consumers choose not to purchase the product at all and drop out of the market. However, it will also lose sales for two other reasons: some consumers will switch to substitute products (*demand side substitutability*) and some firms operating ‘near’ to the (narrowly defined) candidate market will alter their production programmes and supply similar products to other consumers in the market at lower prices (*supply side substitutability*). To say that a particular supplier is ‘near’ to the candidate market has been taken by some to suggest that establishing demand side substitutability is, or must be, logically prior to assessing supply side substitution (how else can ‘near’ be established?). In fact, the other products that are ‘near’ to the market are often obvious even in the absence of a precise elaboration of demand substitution. When this is not the case, both exercises ought to occur simultaneously in an iterative manner. If there are close demand or supply side substitutes, then the price increase initiated by the hypothetical monopolist will lead to a large reduction in its sales, and its profits will, as a consequence, fall.<sup>5</sup> The iterative procedure outlined above selects the closest of these supply or demand side substitutes at

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<sup>3</sup>See USDOJ (1992); EC (1997), OFT (1999b, 2001), Competition Commission (2002).

<sup>4</sup>In the case of a merger, for example, this is likely to include the principal products and areas of operation of the two firms—or at least those most directly affected by the merger.

<sup>5</sup>That is, the existence of close demand or supply substitutes will make the demand curve facing the hypothetical monopolist—sometimes called its *residual demand*—more elastic than market demand. Clearly, the more elastic its residual demand is, the less likely it is that a price rise will be profitable.

each stage of the process and adds them to the candidate market definition being considered at that stage. The process ends when the addition of the marginal demand or supply side substitute does not affect the ability of the hypothetical monopolist to profit from a price rise.

To understand how large the volume fall-off has to be to make the hypothesised price rise unsustainable, it is necessary to consider costs. If all costs were fixed, then a 10% price rise that reduced volume sold by about 10% would leave both revenue and costs unchanged, and, therefore, it would have no effect on profits.<sup>6</sup> Hence, if all costs are fixed, any volume decrease larger than 10% would necessarily reduce revenues and, therefore, profits. If some costs are variable, then the decrease in volume caused by the hypothetical price rise will also lead to a reduction in costs, and, hence, a fall of more than 10% in volume may still be consistent with an increase in profits following the hypothesised price rise. It turns out that the critical volume decrease which separates a profitable from an unprofitable price rise depends on the prevailing price—marginal cost margin<sup>7</sup> that is being earned at the price from which the experiment starts (see the appendix for details): the smaller is that price-marginal cost margin (i.e. the closer to zero it is), the larger the volume fall-off has to be to make the hypothetical monopolist's price rise unsustainable. When all costs are fixed, the price-marginal cost margin is unity, and, as we have just seen, a volume drop-off of just over 10% will reduce profits.

Second, the starting point of the SSNIP test is 'the narrowest groups of products and geographical area that is reasonable'. In practice, many firms involved in anti-trust investigations operate in more than one market because they produce a wide range of goods. This usually means starting with a subset of the goods produced by the firm or firms whose behaviour (or proposed merger) is the centre of interest, and the process of adding the closest supply and demand side substitutes effectively identifies the most powerful competitive (ie demand or supply side) constraints put on that firm (using the 10% rule as a way of measuring how powerful they really are). The first bundle of activities added to the initial hypothetical monopoly are those most likely to undermine any attempt to exploit that monopoly; the second bundle are those next most likely, and so on. The importance of starting from a narrow initial definition is that the market boundaries eventually established by the procedure do not include products, geographical areas or suppliers who do not compete directly with each other. If this approach sins, it does so by omitting relevant products, areas and firms from the market. One consequence of this is that the SSNIP test almost always ends up with narrower market definitions than those in popular use, and many SSNIP markets populate sectors like 'telecommunications', 'pharmaceuticals' and so on. From the anti-trust authorities point of view this is probably the correct direction in which to err. If the market is defined too narrowly, so that market shares overstate a firm's market power, this will become apparent in the competition tests. On the other hand, if markets were defined too broadly, so market shares were understated, this might lead to firms with potential market power not being investigated.

Third, one of the challenges of applying the SSNIP test is its hypothetical nature and gathering the information needed to put it into practice. It is almost always the case that one cannot directly observe a SSNIP test in operation. It is rare to find a 'natural experiment' in which a monopolist unilaterally pushes through a 10% price rise to see what will happen. In practice, the sort of information that is used includes estimates of the parameters of a demand system (in particular the own and cross price elasticities), information on product characteristics and consumer preferences (gathered either from industry sources or consumer surveys), information on past price movements and information on product

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<sup>6</sup>Strictly speaking, the fall off need only be 9.1%. Initially, profits are  $\pi_0 = p \cdot q$ . When price rises to  $1.1p$ , profits become  $\pi_1 = 1.1p \cdot (1-x)q$  when quantity falls by  $x$ . Profits remain unchanged if  $\pi_0 = \pi_1$ ; i.e. when  $x = 0.91$ .

<sup>7</sup>The price-marginal cost margin is price minus marginal cost over price.

technologies and costs. As a consequence, calculating the outcome of applying the SSNIP test almost always involves making indirect inferences, and the answers which emerge almost always contain some degree of imprecision. There is a burgeoning literature which explores various methodologies (including econometric models and conjoint analysis) which might be used to help make these inferences.<sup>8</sup>

Finally, it is worth stepping back and putting all of this into perspective. The basic idea behind the SSNIP test is that a market is a collection of products and geographical areas which can be profitably monopolised. This is a natural way for anti-trust authorities to think about market definitions, since what is of concern in anti-trust cases is the incentives that firms have to create and exploit monopoly positions. However, it is not quite the same as the way of thinking about markets as that which features in the traditional approach to market definition entombed in first year economics textbooks. That approach to identifying markets is often called the *law of one price*, and tests based on it attempt to identify an area in which arbitrage operates to eliminate price differences between identical products.<sup>9</sup> In a sense, it identifies what might be called a *trading market*—an area within which it will be impossible for a trader to sustain a price for the products of interest that is different from those prevailing elsewhere in the same area. The law of one price differs from the SSNIP test in at least two ways: it relies on the technology of arbitrage to set overall market boundaries and it typically concentrates only on demand side substitution. In general, there is no obvious relationship between the market boundaries identified by using tests based on the law of one price and those identified by using the SSNIP test.<sup>10</sup>

## Some complications

Identifying market boundaries is as much an art as it is a science, and it sometimes requires fairly finely tuned judgements to do the exercise properly. There are a number of areas where there is a need for such judgements, and we discuss four of these in what follows.

### Intermediate goods markets

When a product is an intermediate good, and not sold direct to consumers, there are two transactions of interest: the retail transaction (between retailers and final consumers) and the wholesale transaction (between the manufacturer and the retailer).<sup>11</sup> If the market of interest is the wholesale market, then it is clear that the consequences of a 10% increase in wholesale prices will depend, in part, on behaviour in the downstream retail market. The two issues of importance here are: the degree of pass through (ie the extent to which retailers pass all of the 10% rise in wholesale prices on to their customers), and the extent of consumer reaction to whatever percentage price rise actually is passed through. The responses of consumers will condition the action of retailers and, in effect, shape their demand at the wholesale level for the product.

The analysis becomes more complicated when the manufacturer is vertically integrated downstream, retailing (at least part of its output) direct to consumers. In this situation, it clearly competes with retailers and this observation is sometimes used to argue that the

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<sup>8</sup>See, inter alia, Kovacic (1997), Baker and Rubinfeld (1999); the Competition Commission has begun to use consumer surveys to help quantify consumer reactions to a hypothetical price rise in particular markets.

<sup>9</sup>There is a large literature on tests involving the law of one price. The most common approaches involve looking at price differences between different regions for the same or similar products, looking for correlations between price changes over time, or tracking trade flows. For further discussion see Sheffman and Spiller (1987), Geroski, (1998), Slade (1986), Baker and Bresnahan (1985), Fisher (1987), Hausman et al (1996), Forni (2002) and others.

<sup>10</sup>This said, price correlation tests have been used by anti-trust bodies as evidence on market definition; see, inter alia, OFT (1999a), Steen and Salvanes (1999), and others.

<sup>11</sup>There may, in fact, be more transactions if one or more independent wholesalers are involved in the value chain.

wholesale and retail markets are effectively one single market. The SSNIP test applied to such a market effectively asks what might happen to a vertically integrated monopolist who produces and sells all of the output produced in the candidate market. While this may be an interesting question to ask, it tells us nothing of substance about the wholesale market taken on its own (or, for that matter, the retail market). Further, it is (arguably) sloppy practice. The SSNIP test starts from the narrowest market definition, and in this case that must mean the wholesale market or the retail market taken on its own. Further, it should not be the case that market definitions depend on how firms choose to organise their activities: that a firm chooses to vertically integrate forward does not necessarily mean that wholesale and retail markets are just one big market.

### *The cellophane fallacy*

A monopolist will set prices at the point where consumers are just on the margin of switching to some other product or of dropping out of the market altogether. This is where profits are maximised. This means that when monopoly prices prevail in the market, there will appear to be many substitutes for the monopolist's product. However, the fact that there appear to be many substitutes at this price does not mean that this is not a monopoly price—indeed, if there were no apparent substitutes at a particular market price, one would be tempted to conclude that that price was not being set at monopoly levels. The implication of this observation is that the appearance of substitutes at *prevailing* prices does not necessarily mean that they should be included in the same market. This observation has come to be known as the 'cellophane fallacy' after a famous US anti-trust case against Du Pont. Du Pont argued that cellophane was not a separate market, since at prevailing prices there appeared to be a high cross elasticity of demand between cellophane and aluminium foil, wax paper and polyethylene. This meant that what seemed to be a near monopoly of 'the cellophane market' looked like a much more modest share of something that might be called 'the wrappings market' (or so the judge in the case thought).

The right way to avoid the cellophane fallacy depends on the kind of case that one is concerned with. In a merger case, one is typically concerned with whether the merger is going to enhance the firm's market position in a way which might be abused. The question of interest, then, is whether the firms involved in the merger are likely to be able raise prices as a result of the merger and earn higher profits. To answer this question it seems natural to apply the SSNIP test to existing market prices. That is, to ask whether, as a consequence of the merger, a 10% increase in prices above the current level can be sustained by the merged firm. If so, the merger will clearly enhance the firm's market power; if not, then the market that the merged firms operate in must include other products, areas and/or suppliers, and its competitiveness must be assessed when its exact boundaries have been ascertained (see Section IV below). In a so-called monopoly inquiry, where one is exploring whether one or more firms have, or have abused, a monopoly position, it seems unwise to use prevailing market prices as the basis from which to consider a hypothetical 10% price rise since there is at least a chance that those prices will already reflect an element of monopoly power. A better procedure is to start by ascertaining what level of prices might prevail were the market to be competitive, and then use that as the basis of the SSNIP test. If prevailing prices appeared to be sustainable and were 10% or more above this level, then it would follow almost immediately that the firm(s) in question had at least some market power.

### *What is 'small but significant'?*

It has become something of a convention to consider 10% to be a 'small but significant' price rise. However, what is considered to be 'small but significant' will vary across markets and over time and will depend on product characteristics, past price increases, current inflation rates and a number of other factors. The 10% convention was established at a time of rather high inflation, and many think it may be considered too high in times of lower inflation. These

arguments usually result in the use of a test based on 5% (eg see Competition Commission, 2002). One way to think about the reasonableness (or otherwise) of 10% is as follows. Suppose that a competitive industry suddenly (somehow) becomes monopolised, and monopoly prices are set. If, prior to the monopolisation, the market were competitive then prices would equal marginal costs; post the monopolisation, price cost margins will rise, and, for the sake of argument, let us suppose that they end up at 10%.<sup>12</sup> Since the monopoly margin is equal to the reciprocal of the elasticity of demand, a 10% margin implies that demand is more elastic, and one might feel that if a 10% price rise is all the monopolist can engineer following his/her monopolisation of the market, then that monopoly might be rather benign. If, however, the monopolist can engineer *at least* a 10% rise, this must mean that demand is much less elastic than this—that buyers are, in a real sense, ‘captive’ in the market—and, therefore, that the monopoly might be rather less benign. Of course, one might make much the same argument in favour of a 5% or a 15% threshold level for SSNIP, so this argument does not really take us very far. What it suggests, however, is that if at any stage of the iterative SSNIP procedure one finds a 10% price rise to be sustainable, one ought to go on and ask the further question: ‘in that case, just how high a price rise would be sustainable?’

‘Small but significant’ refers to both the size of the hypothesised price rise, and also (at least implicitly) to how long it is maintained. It is clear that a 10% price rise that is maintained for about two days is unlikely to induce much substitution one way or the other; on the other hand, a 10% price rise maintained for two centuries is likely to paint quite a different picture of the market. There is no obvious rule to determine how long a price rise ought to be considered when applying the SSNIP test. In a sense, it depends on how long it will take consumers and suppliers to respond to the price rise (if, of course, they are actually minded to respond), and this will differ by type of product and type of consumer. The usual convention here is to suppose that the hypothetical price rise is maintained for a year. Again, it is hard to defend this practice except on the grounds of reasonableness: if it really takes more than a year for consumers to switch to alternative products, or for suppliers to reengineer their product programmes to produce a ‘me-too’ substitute for the (hypothetically) monopolised product, then the rewards for monopolisation are likely to last longer than at least a year, and this seems, somehow, like a long time. The bottom line is that if one finds at any stage of the iterative SSNIP procedure that a 10% price rise maintained for at least a year is sustainable, one might want to go on and ask the further question: ‘in that case, just how long would that price rise be sustainable?’.

### **Many markets, many market segments**

All firms operate in many markets—labour markets, capital markets, raw material markets and, of course, downstream markets in which they sell their products to consumers. Further, any firm actively interested in increasing its profits is likely to try to segment its downstream markets, identifying different groups of consumers with different needs and a different willingness to pay, and serving each with a variant of the basic product that suits their needs and at a different price. The question that this raises is which market should the SSNIP test be applied to, and, in principle, the simple answer is ‘all of them’. In practice, however, some of these markets are likely to be more interesting than others: some will seem to be inherently less likely to be competitive than others, or involve consumers or rival firms whose vulnerability might be a source of concern. Further, anti-trust investigations are typically complaint-driven, and this naturally focuses attention on some markets rather than others. Finally, anti-competitive activity in one market (eg driving down the prices of inputs paid to suppliers) might well be considered benign if the rents so gained are dissipated through competition in the other markets that the firm in question operates in, leaving consumers in

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<sup>12</sup>If marginal costs are rising, then a 10% margin of price over marginal cost implies a rather higher margin of price over average cost, and thus a rather higher gross accounting margin.

these markets as the ultimate beneficiary of whatever market power is exploited in the monopolised market. This suggests that any investigation into possible monopoly power in particular markets may require a complementary exploration of other markets.

Almost any market one might want to consider is likely to be divisible into a number of market segments, and it is almost always a moot question whether these segments ought to be regarded as markets in and of themselves, or as parts of a broader market. The SSNIP test starts from the narrowest market definition which seems reasonable in the circumstances, and this means that it is likely to lead one to the conclusion that particular segments are separate markets. The problem is that these separate segments are likely to be interdependent—activities which occur in one of them will almost certainly have effects on others. This should not cause a problem in defining the market (although the precise boundaries between segments that are ‘near’ to each other is likely to be difficult to fix with any certainty), but it will make the assessment of the degree of competition in any of them rather more tricky than would otherwise be the case. Thinking of different market segments as being different markets does, however, have one great virtue, and that is that it makes identifying the effects of anti-competitive behaviour much more precise. If there are real differences between different groups of consumers, then a sensible monopolist will not treat them all the same: some will be more vulnerable than others, and will, therefore, bear more of the burden of monopoly than others. Anything that targets the effects of anti-competitive behaviour—and, in doing so, identifies just who is adversely affected by it—makes the process of remedying such effects much easier and the design of remedies more effective.

### Assessing competitiveness

The SSNIP test enables us to identify the relevant market for the purposes of analysis but, as we noted earlier, it is just the start of any anti-trust inquiry. The real issue in every case is not what the market is, but how competitive it is (or how a merger affects competition). There are three features of the market—however defined—which determine its competitiveness and they are: the degree of intra-market rivalry, the extent of buyer (or supplier) power, and the state of entry.<sup>13</sup> We consider each briefly in turn.

#### *Intra-market rivalry*

The SSNIP test identifies market boundaries by assessing the consequences of the actions of a hypothetical monopolist, but, in practice, the market so identified is unlikely to be completely monopolised. As a consequence, the firms who are at the centre of anti-trust interest in any particular case are likely to face potential competitive challenges from existing rivals producing similar products. Thus, in monopoly cases, whether this group of competitors is able to act collectively and behave as if they were a monopolist is the first and most natural question to ask; in merger cases one needs to ask whether competitors will effectively be able to constrain price increases in the enlarged post-merger firm.

Assessing intra-market rivalry is, of course, a very old chestnut, and there is not enough space to do it any kind of justice here.<sup>14</sup> The traditional approach to this question is structural, and involves computing market shares in search of ‘high’ levels of concentration or positions of market dominance. There has grown up a set of conventions—some of which have become embodied in statutes—built up around rules of thumb expressed in terms of

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<sup>13</sup>Curiously enough, assessing competitiveness in this way is almost exactly how business strategists assess the ‘attractiveness’ of the market. In particular, Michael Porter’s famous ‘five forces’ are: buyers, suppliers, entrants, rivals and substitutes—our classification above lumps buyers and suppliers on the one hand, and rivals and substitutes on the other, together; see Porter (1980).

<sup>14</sup>For good overviews of how to assess intra-market rivalry—and more generally, of the economics of anti-trust—see Neumann (2001), Harrington et al (2000), and others.

market shares or levels of market concentration.<sup>15</sup> As we noted earlier, these rules of thumb—and this structural approach more generally—have much to commend them as a way of prioritising scarce anti-trust resources or establishing jurisdiction. However, from the point of view of assessing the competitiveness of any particular market, it is probably too simple. It may be that a firm with a large market share will be able to act as a price leader, initiating and then enforcing, high prices. It may also be, however, that the supposed power promised by a high market share will evaporate with use because of the actions of rivals, in which case high market shares identify no more than latent pockets of market power. To understand whether a firm really has market power, one needs to understand how independent of the leader the other firms in the market are, how strong their incentives are to try to take share away from the leader and whether they have the ability to do so. Clearly, this takes us beyond the use of simple structural measures of competition, and into an assessment of likely modes of market behaviour. Recent developments involve using richer structural models and evidence to suggest what equilibrium outcomes might be.

### **Buyer (or supplier) power**

The SSNIP test examines buyer substitutability, asking (amongst other things) whether there is an attractive option (ie substitute product) open to buyers faced by a unilateral 10% price rise initiated by a hypothetical monopolist. In fact, buyers not only have ‘exit’ options, they also have ‘voice’ options. In particular, when buyers are small in number and well organised, price setting becomes more like a bargaining process and less like a unilateral posting of prices. The power of buyers (or suppliers) to affect the methods by which prices are set is as important as their ability to exercise exit options. Further, well organised buyers are often in a position to affect the degree of intra-market rivalry, effectively setting one firm against another, or to encourage new entry.

Assessing the strength of buyers (or suppliers) is a delicate issue. The simplest (but still not wholly satisfactory) solution is structural, and involves computing the degree of buyer concentration. The principle here is just the obverse of high market share on the sellers’ side of the market: a buyer with a large market share swings a large purse, and that will almost certainly enable it to exert some countervailing power on would be monopolists. More subtle analyses would almost certainly examine the strengths of buyers ‘exit’ options by looking at switching costs and trying to ascertain the extent to which they are locked into a particular seller. More broadly, it is important to assess the degree to which buyers can act strategically: that is, to assess their ability to upset collusive arrangements, encourage entry, stimulate innovations which redefine the market and, in the limit, vertically integrate upstream (or downstream in the case of suppliers). As with intra-market rivalry, this takes us well beyond the computation of buyer market shares and into the murky area of behaviour, potential and actual.

### **Entry**

Rivals do not actually have to be present in a market to exert an effect on the degree of competition in that market. The threat of entry may, in some circumstances, discipline the behaviour of firms who might otherwise enjoy monopoly power. Failing that, the fact of entry may soon correct any monopolistically induced distortions which might result from the exercise of market power.

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<sup>15</sup>One currently used measure of market concentration is the Herfindahl index (the HHI for short), which is defined as the sum of the squares of the market shares of each supplier. For example, if there are five suppliers in a market, each with a share of 20%, the HHI is equal to 2,000 (that is  $20^2$  which equals 400 times five which equals 2,000). The DoJ uses a rule of thumb which says that an HHI below 1,000 is considered as indicating a low concentration, between 1,000 and 1,800 is considered a moderate level of concentration and over 1,800 highly concentrated. The European Court presumes dominance (in the absence of contrary evidence) for market shares of 50% and above (Case C62/86 AKZO Chemie BV v Commission (1993) 5 CMLR 215) and the Director General of Fair Trading in the UK uses a threshold of 40% (see OFT [1999c]).

To assess the likelihood of entry in any circumstance, one needs, in effect, to produce a business plan that a reasonably efficient entrant might use to commence operations. The comparison between this plan and the actual operations of the incumbent help to establish the margin that incumbents can raise price above costs without losing market share; ie without inducing entry. In effect, this is tantamount to measuring the height of entry barriers. In practice, however, an actual entrant is likely to incur a number of transitory costs which will fall away when it finally establishes itself in the market. This, in turn, means that one may have to compute not only the height of entry barriers but also assess the ability of the entrant to finance its operations until it has managed to get control of the short term or transitory costs incurred during the early phases of its entry into the market. Further, since entry is risky and often leads to exit, any exit barriers (like the need to incur large sunk costs) that a failed entrant may have to incur are likely to diminish his/her willingness to enter.

There are, perhaps, two observations worth making about assessing the competitive discipline imposed by entry into markets. The first is that entry and supply side substitutability are very similar. The difference between a supply side substitute (ie a rival producer producing a 'me-too' product to compete with the hypothetical monopolist) and an entrant is that the former is able to enter and compete with the hypothetical monopolist within a year. That is, entry is in effect distinguished from intra-market rivalry by the time period in which it occurs. The second observation arises from the fact that entry does not actually need to occur to have an effect on incumbents' behaviour. This, in turn, means that it is the perception of a threat of entry which matters as much, perhaps, as the actual fact of entry. Beauty, as they say, is in the eyes of the beholder.

### Some final reflections

There is nothing immutable about market boundaries, and as tastes and technology change over time, so do the contours of particular markets. Indeed, innovation blurs industrial boundaries, and it sometimes induces convergence between what were once seemingly quite independent markets. As process innovations affect the supply side of a market, or product innovations affect demand, so the nature of substitution between particular products—that is, the 'how much' and 'how fast' response to a hypothetical 10% price rise—also changes. And, such changes also affect the competitiveness of markets, however they are defined. Changes in technology alter entry barriers, and affect the strategic position of particular buyers or suppliers. All of this makes the analysis of market boundaries much harder than it might otherwise be, but it changes relatively little in principle. The SSNIP test is still the right way to think about identifying market boundaries, even if the result of applying it to a particular market in one year is likely to differ from the results obtained by doing the same test in the same market a year or two later. Further, the same basic drivers of competition—intra-industry rivalry, buyers/suppliers and entry—all apply in principle, even if a new technology alters the particular effects that they have in practice.

The real complication comes because technological changes are not wholly exogenous. Firms make conscious decisions to invest in R&D, or to introduce new products or adopt new innovations introduced by other firms. Amongst other things, this means that the market boundaries that one is likely to observe in any one year will depend on decisions made by firms in past years. Firms that have held favourable market positions in the past are likely to introduce those innovations which help to reinforce or protect those positions; innovations that disrupt existing market boundaries are more likely to be introduced by entrants or fringe players who have little to lose—and everything to gain—from a change in market boundaries. Again, this does not in principle affect how one ought to go about identifying market boundaries, but it does mean that forming expectations about how likely existing boundaries are to change—and in what direction—is more speculative than it might otherwise be.

Of course, firms that make investments in R&D compete with other firms who also choose to invest in R&D. Such investments affect both costs as well as the product quality/diversity available to consumers. Indeed, some people believe that quality and diversity of choice are likely to be more important determinants of welfare than high prices, and for those who think in this way, the important market whose competitiveness needs to be assessed is that in which R&D competition occurs (sometimes called 'the innovation market').<sup>16</sup> What makes this an interesting complement to normal product market analyses is that the forces of competition—and, indeed, the identity of the competitors—in the innovation markets that a firm compete in may well differ from those which are found in the product markets where it sells its products. At the end of the day, however, markets are the stage on which competition occurs, and the fact that firms compete in several interrelated markets—indeed, the fact that firms consciously try to shape the competitive structure of the markets that they operate in—does not in any way diminish the importance of trying to establish the exact contours of those markets, or of assessing their competitiveness.

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<sup>16</sup>See Gilbert and Sunshine (1995) and Rapp (1995) for differing views on the usefulness of analysing 'innovation markets'.

### The simple algebra of SSNIP

Profits beforehand (denoted with subscript 0) are equal to revenue (price ( $P$ ) times quantity ( $Q$ )) minus total costs (average cost ( $C$ ) times quantity):

$$(1) \Pi_0 = (P_0 - C_0)Q_0$$

A change in price  $\Delta P = P_1 - P_0$  leads to a change in quantity demanded  $\Delta Q = Q_1 - Q_0$  and may also lead to a change in the average cost of production  $\Delta C = C_1 - C_0$ . This gives a new level of profits:

$$(2) \Pi_1 = (P_1 - C_1)Q_1.$$

The change in profits is given by:

$$(3) \begin{aligned} \Delta \Pi &= \Pi_1 - \Pi_0 = (P_1 - C_1)Q_1 - (P_0 - C_0)Q_0 \\ &= \Delta P Q_1 + (P_0 - C_0)\Delta Q - Q_1 \Delta C. \end{aligned}$$

Note that when  $\Delta P > 0$  we expect that  $\Delta Q < 0$ . We are interested in looking at when  $\Delta \Pi$  will be less than zero. It is convenient to rewrite (3) by dividing through by  $P_0$  (note that this does not matter as  $\Delta \Pi < 0$  if  $\Delta \Pi / P_0 < 0$ ), yielding

$$(4) \frac{\Delta \Pi}{P_0} = \frac{\Delta P}{P_0} Q_1 + \frac{P_0 - C_0}{P_0} \Delta Q - \frac{Q_1}{P_0} \Delta C.$$

Note that  $\Delta P / P_0$  is the hypothetical price rise (usually considered to be 10 per cent).

Begin by considering the case where average cost is constant (it does not depend on the amount produced) so that  $\Delta C = 0$ . Then,

$$(5) \frac{\Delta \Pi}{P_0} = \frac{\Delta P}{P_0} Q_1 + \frac{P_0 - C_0}{P_0} \Delta Q.$$

Thus, a price rise will be profitable if:

$$(6) \frac{\Delta P}{P_0} Q_1 > \frac{P_0 - C_0}{P_0} \Delta Q;$$

that is if the increased price charged on the new (lesser) quantity is greater than the lost margin on the decrease in quantity. If there are economies of scale, then we also need to work out  $\frac{Q_1}{P_0} \Delta C$ . If, for example,  $\Delta C > 0$  when  $\Delta Q < 0$ , the increase in price on the new

quantity needs to be greater than the lost margin on the decreased quantity plus the higher costs on the new quantity.

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# APPEALING TO THE COMPETITION COMMISSION<sup>1</sup>

September 2003

## Introduction

The Competition Commission (CC) that I joined some years ago was called the Monopolies and Mergers Commission. It was a lot smaller than it is now and it had more bark than the bite it now has. Our role in the greater scheme of things has been transformed by two major pieces of competition legislation, and a range of further Acts which have redesigned a number of the regulatory regimes which apply in particular sectors. It has been an interesting experience living through these changes, but it must all be a bit bewildering to anyone who has not been paying close attention. This, I think, must be particularly the case for people involved in various regulated industries, since the structure of regulation that has been evolving of late has been rapidly changing, and it does not even look the same sector by sector. Nevertheless, I think that there is an overall logic to the regime that we have (or will shortly have when all of the legislation has been enacted), and my goal in this paper is to set it out as I see it, and discuss some of its costs and benefits.

## The current state of play

The UK is evolving an interesting but complex competition and regulatory regime. This system is perhaps easiest to see in the area of merger and monopoly control, where the two main players are the Office of Fair Trading (the OFT) and the CC. The OFT screens merger proposals and carries out preliminary investigations of markets where competition problems are thought to be present, and then, if further investigation is deemed to be necessary, it sends the case along to the CC for a full investigation. The OFT also has some powers of its own, and it can and does carry out its own detailed investigations. Companies have the right of appeal to the Competition Appeal Tribunal (the CAT) against the use of the powers given to the OFT by the Competition Act. In the old regime, decisions made by the CC were merely recommendations to the Secretary of State, but in new regime put into place by the Enterprise Act, our decisions—both in the identification of adverse effects arising from a substantial lessening of competition and in the remedies designed to deal with these effects—will be determinative. However, they may be judicially reviewed at the CAT.

The picture is slightly less clear in the regulated industries, if only because the legislation is not complete. We review the setting of landing charges on four designated airports every five years regardless of the policy decisions taken by the regulator, or whether the regulator and the airport authorities are in dispute. At the same time, we are mandated to determine whether the airport operator has operated against the public interest in any way, and, if so, to recommend remedies. Our decisions on landing charges also take the form of a recommendation to the regulator, and neither decision is binding (although the recommendations may carry some force). On the other hand, only if the regulator and the regulated companies in gas, electricity, railways and postal services cannot agree on a licence modification proposed by the regulator is the matter referred to us. Further, in these references we are determinative: that is, we are required to determine whether the regulators proposals are adequate to remedy the adverse effects that we have identified, and, if not, to exercise power of veto and impose the licence modifications that we think are appropriate. My understanding is that the proposed Water Act will, if enacted, extend the same regime to this

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<sup>1</sup>Article printed in *Utilities Policy* 2004, vol 12, issue 2, pp77–81. The views expressed in this paper are my own, and are not necessarily those of either of the Competition Commission, or any individuals in the Commission. I am obliged to Derek Morris, John Banfield, Robert Foster, Carole Begent, Mark Williams, John Cook, Jon Stern and Tom Kitchen for helpful comments on an earlier draft. Needless to say, the usual caveat applies.

sector as well (that is, giving the CC the power of veto in water and sewerage licence modifications). Finally, in telecoms and broadcasting, it seems that we are going to be de facto determinative on issues to do with price controls (which will come to us via appeals to the CAT).

In my mind, this system has what is basically a two tier structure. At the first tier are the OFT (in the area of merger and monopoly control) and the various sector specific regulators (in their particular sectors). In virtually all situations, these front line regulators are the first port of call, and they are responsible for the day-to-day examination of the activities of those firms whose activities fall under their remit. They have the resources and the responsibility to deal with the vast majority of issues that come to their attention, and, when they do not (or when they cannot resolve a dispute), it is part of their responsibilities to ensure that the case is sent on to the second tier for a full investigation. The second tier consists of the CC and the CAT. The CC is an expert body with the resources and expertise to conduct detailed investigations into highly complex issues, and to design remedies whenever adverse effects are found. The CAT is a tribunal that lacks both the resources and the expertise of the CC to conduct detailed examinations of technical issues, but it does have the specialised legal knowledge necessary to undertake judicial reviews of CC decisions.

It follows from all of this, then, that the CC is not an appeal body—it is not there to adjudicate between regulators and regulated companies, or even to arbitrate between them. And, as readers of the recent reports on airports and mobile phones know, the CC does not, in fact, typically act as an arbitrator: we do not necessarily try to choose between the positions taken by regulators and regulated companies on particular issues, or even to find a mutually acceptable halfway house. The CC is an investigative body with the expertise to decide on issues of substance, and it can—and, if it sees fit, it has the responsibility to—form views that are different from those of both the regulator and the regulated companies on particular cases. The terms of references that we are given define the issues that our investigations cover, but they do not limit or constrain either our approach to these issues or the views that we ultimately form about them.

### **Assessing the two tier system**

The obvious question that all of this raises is whether this kind of two tier system makes much sense. Two tiers is obviously one more than one tier, an argument that enthusiasts for 'light' or 'no touch' regulation typically find persuasive enough to use to condemn the whole system. A more mature reflection on the issues is likely to turn up a number of costs and benefits to a system like this. My view is that they add up to a positive net benefit.

The costs are easy to see, so let us start there. A case that goes the full length of the system, from the front line regulator to the CC and thence on judicial review to the CAT, is clearly going to take quite some time to resolve. It will involve costs and possibly some duplication of effort between the first and second tiers (although we try to minimise this as much as possible). This said, however, it is easy to exaggerate these costs, and they are often dwarfed by the financial implications (for the regulated companies as well as for their consumers) of the decisions that are ultimately made. If these costs are the price that has to be paid to get these decisions right, then they may not actually be very large in any real sense.

As against these costs, the two tier system also has a number of benefits, and, in my mind, these are no less real or important than the costs of the system. The benefits include the following:

- The mere threat of going to the second tier may help to concentrate minds wonderfully at the first tier, and, if this happens, it will help to resolve differences between regulators and regulated companies encountered at the first tier.

- A common second tier that stretches across a range of different first tier or front line regulators provides the opportunity to set standards or benchmarks on common practices or issues that affect all regulated companies, and this can significantly improve decision making by front line regulators and reduce regulatory uncertainty for firms.
- An investigative second tier undertaken by a body with expertise has the potential to introduce new information on, and new approaches to, old problems that elude the attention of, or are outside the mindsets of, those who are narrowly focused on the day to day details of particular regulatory structures or particular sectors.
- A two tier system may protect consumers and interested third parties against regulatory capture, or regulator indifference and/or incompetence.

The first two of these benefits are, in my mind, likely to be the most substantive. Two or more parties undergoing a first tier investigation are likely to have strong incentives to come to an agreement rather than incur the costs in time and money involved in a second tier investigation, particularly one which has the potential of opening up a wide range of issues that extend beyond the narrow area of dispute. Similarly, the establishment of benchmarks and the ability to adapt them gradually over time to reflect the circumstances present in a wide range of regulatory settings is likely to facilitate first tier investigations. The kinds of benchmarks that the CC tries to establish include the cost of capital, which often plays a large role in regulatory inquiries. Our habit is to express our view in the form of a range of values that seem to us to contain reasonable estimates of the cost of capital (and of its underlying parameters), and then (usually) choose the mid-point. Not only does this produce what we regard as the right number, but it also sets out what we believe are the range of values within which reasonable people might agree to differ in particular circumstances. The goal is to help focus debates between other regulators and the companies that they regulate about what the relevant cost of capital is in their particular case, and so reduce regulatory uncertainty.

So, where does all of this leave us? There are clearly both costs and benefits to a two tier structure such as the one that we have, and it is equally clear that the costs and benefits will vary from case to case. There are some references that should go to the second tier but do not, and there are others that do go to the second tier but should not. If one were to try to draw up a rough and ready rule of thumb, it seems to me that the net benefits of having a second tier are largest when major extensions or changes in regulatory regimes are being proposed, when it is more than a question of what the right numbers are but also a question of which numbers matter and why. Independent investigative bodies like the CC are, by design, particularly well suited to asking questions about the rationale and design of particular regulatory structures, and these are exactly the kinds of questions that one would wish to spend time and money on getting absolutely right. This is not to say that the CC is a body that cannot do the numbers or that we should not (the benefits for consumers that have resulted from the implementation of our recommendations have, on occasion, been very large), it is merely to argue that the net benefits of the two tier regulatory structure are probably higher when we are asked to look at regime changes than when we are asked to descend into the nuances of applying existing regimes to familiar situations or issues.

### **The way forward?**

Whatever the balance between costs and benefits in particular situations, it is always important to continue to fine tune regulatory structures in ways that increase the benefits of using them, and reduce the costs. There appear to be no shortage of suggestions for how the current system (or what will soon be the current system) might be improved, and not all of them are wholly self-interested. Let me close with a few reflections on one or two of the proposals that are currently in the air.

It has been suggested that the CC could change its procedures, and, in particular, that we could try to speed things up at the second tier. This might involve restricting ourselves to examining only the evidence that is generated in the first tier investigation, or to restricting ourselves in the further demands for information that we make to the parties when the second tier investigation starts. It might also involve restricting ourselves to considering only the arguments put before us by the regulator or by the regulated companies, perhaps doing so within the confines of a 1–2 month period. Admirable and sensible as these suggestions seem to be on the face of it, they will work only if our role were to change in a very fundamental way. Restricting ourselves to what has passed during the first tier effectively turns us from an investigating body into an arbitrating body, for it more or less strips us of the means to investigate the facts of the case as we see fit. Said another way, they yield cost savings only at the price of foregoing almost all of the benefits of the two tier system discussed above.

It might seem, nevertheless, that there is a halfway house—that the CC might continue in its role as an investigating body, but that it might try to do so with less fuss, less resource costs and less time. This is clearly a desirable thing, but it is important to point out that the important driver of these costs is the need to be thorough and to be fair. Much of what we do is designed to ensure that issues are discussed thoroughly by all of the parties concerned; and economies that can only be realised by restricting the ability of parties to make their case are simply not worth having. As a matter of fact, we have been thoroughly revising our procedures of late, and have put a major emphasis on making them more transparent. This, we think, is likely to make them more efficient and much fairer, but whether it makes us faster is anyone's guess (but one lives in hope).

A second proposal that seems to be floating in the air is that we should allow 'line by line' appeals, essentially restricting the scope of our inquiries but effectively with the prior agreement of the parties. As far as I understand it, this can happen now. The fact that it usually does not is, I think, instructive. My sense is that most companies who are on their way to the CC have a tendency to wish to open up all the issues—as we all learned when we were children, if you are in for a penny, you might as well be in for a pound. And, indeed, whenever a reference to the CC is concerned with a major extension or a major redesign of an already existing regulatory structure, regulated firms are probably well advised to do so. Similarly, many regulators resist line by line appeals for fear that cherry picking will occur. A licence modification is typically a complex multifaceted deal, and, in trying to reach an agreement, both the regulator and the parties concerned will concede some issues in order to advance others. No one on either side of whatever deal gets on to the table would like to see an investigation of the deal centre only on the points where they had not made concessions to the other side in search of an agreement, and rightly so. Whenever a licence modification is a complex package of issues, there will always be a reasonable argument for thinking that is the package as a whole that needs to be examined and not just a few of the individual components of that package.

These practical considerations aside, there is at least one further reservation in principle that one might have about 'line by line' appeals which direct attention away from issues about which the regulator and the regulated company agree. Those who worry about regulatory capture will be concerned that this kind of procedure runs the risk that capture, if it occurs, will not be detected or properly dealt with. After all, the essence of capture is that regulators and regulated companies see eye to eye on the issues (the problem being that they see these issues solely through the regulated company's eyes). Others who find themselves outside the line by line understanding reached by regulator and regulated company will be concerned that the use of line by line appeals might foreclose the discussion of important issues about which they feel differently from the regulator and the regulated company. At the very least, this is hardly fair.

All of this said, we do scope inquiries to avoid unnecessarily opening up issues that are not in dispute between the parties, or issues that are, in the end, likely to be of only peripheral

importance. There may be more that we can do at a case management level to improve our practices, and we will continue to critically examine our procedures. I suppose that the way forward here is through more extensive meetings at an early stage of the investigation with the various parties at the beginning of the case to identify key issues. However, it is also worth reiterating that our ability to scope the issues and focus on a few key ones is limited by the willingness of all of the parties concerned in an investigation—be they the regulator, the regulated company or interested third parties with a real stake in the outcome—to accept this, and to forebear from opening up issues that have been set on one side. And, as I have just explained, I very much doubt that we will, in the end, make all that much progress in limiting the scope of our inquiries in this way.

A third proposal that seems to be in the air is the notion of allowing a ‘fast track’ appeal. This essentially involves the parties agreeing to disagree straight away at the beginning of the first tier investigation, and moving forthwith to the second tier. As I understand it, this is also possible in the current system, and I understand that it has happened at least once. It is, however, probably unwise, and it may even be unfair. There is no inevitability about there being a second tier investigation in any case, and there should not be unless it is clear that the benefits of prolonging the case into a second tier will be large. However, it can never be clear what the benefits are of having a second tier investigation until the evidence and arguments typically deployed at the first tier have been assembled and assessed, which means that one must undertake the first tier investigation properly before considering whether a second tier is necessary. At the very least, parties will want to thoroughly explore the various options that arise during the normal give and take in the first tier investigation before going to the second tier. Further, the issues in any particular case affect not just the particular companies who are being regulated, and a fast track appeal initiated by a regulated company (or its regulator) effectively shuts interested third parties out of the first tier deliberations. That is, once one allows for the possibility of a fast track appeal to the CC, one must, as a matter of fairness, go on to ask ‘by who?’.

This question of ‘who’ seems to me to be a very general and very important one. There are a number of proposals floating around which would, in essence, transform us from being an independent investigative body into an arbitrator. Attractive as these proposals are, there still remains the question of: ‘arbitrate between whom?’. In most regulatory cases, the interested parties—those who have an important stake in the outcome of the inquiry—reach well beyond the regulator and the regulated company. Although one might imagine that the regulator speaks for some of these parties—most notably, consumers—this is not always the case in practice. Indeed, my experience is that third parties often make a major input into regulatory cases, and any kind of arbitration scheme which effectively shuts them out will, I believe, run the risk of significantly lowering the quality of decision making at the second tier. And, any arbitration scheme that tries to arbitrate between more than two interested parties is likely to be even slower and more costly than the current system.

It is also worth adding one further thought. There are a number of proposals currently being discussed which would allow regulated companies to suggest licence modifications and then appeal to the CC, were their regulator to disagree. Interesting as these suggestions are, they raise the further question of whether appeals should also be entertained from third parties. This is an important question I believe. Allowing third party appeals in certain circumstances encourages their involvement in the process, and, as I have just said, I think that third parties often have important contributions to make. Those who believe that regulatory capture—or that regulator competence—is an important threat to the proper functioning of our regulatory system will, I think, want to allow for the involvement of as many interested parties as possible in what should be as transparent a process as possible. Regulatory capture is quite likely to result in sweetheart deals being struck during the first tier investigation that are never put to proper scrutiny by a body with the expertise to evaluate their likely effects, and allowing third party appeals is potentially an important check on this happening.

## Some concluding observations

We are all watching a system of regulation slowly evolve, and no one knows for sure where it is going to go next. I believe that we have—consciously or unconsciously—developed a two tier system of regulation, and that it is a system which has much to commend it. Although there are costs involved when a case comes to the CC, we are a fairly lean competition authority whether that be judged by the standards of other authorities in developed economies, the costs that can be incurred by taking a case to the high court, or the benefits generated by our investigations. Whatever the costs, however, ours is a system that is thorough and fair, and these are features that any good regulatory system must have, even if it comes at a price. There are, no doubt, countless ways in which the system might be improved, and it is a racing certainty that our experience with using the system over the coming years will generate further suggestions for improvement. This, in turn, says that if all of this is going to work tolerably well over time, then those who work in the system must be flexible and open minded about its workings.

# IS COMPETITION POLICY WORTH IT?

*September 2004*

## Introduction

There is no question that competition policy is on the agenda these days. In the UK, two major acts of legislation—the Competition Act of 1998 and the Enterprise Act of 2002—have brought the EC’s prohibition system to the UK, changed the name of the old Monopolies and Mergers Commission to the Competition Commission and given it new powers. They have criminalised price fixing, created a specialist appeal and review court for anti-trust cases and eliminated the old ‘public interest test’, replacing it with a narrower, effects based ‘substantial lessening of competition’ test. At the same time, the two major competition policy bodies in the UK—the Office of Fair Trading and the newly renamed Competition Commission—have expanded, developed new areas of expertise and, possibly most adventurous of all, they have both been put into the hands of professors of economics.

We are still some way into the process of bedding down the new regime, and it is too early to evaluate it fully and properly. It is not, however, too early to address the more basic, possibly more fundamental question, namely, is competition policy itself worth it? However the system is designed, it consumes public resources, and it must, therefore, deliver benefits that justify this resource commitment. This seems particularly worth doing at a time when that resource commitment is increasing in the UK, and when critics of the system equate a rise in the budgets of the OFT and the CC with a massive increase in red tape and intrusiveness.

Thus, my question today is a simple one: is competition policy worth it? I will start where all professors of economics instinctively start, namely with a textbook sketch of the benefits of competition. I will then look at the kinds of benefits to consumers which have emerged from the recent activities of competition authorities around the world (concentrating mainly on the UK). The important points that I will make here are two fold: first, those benefits which have been carefully measured are of an order of magnitude larger than the costs incurred by the authorities, and, second, that many of the benefits which come from the actions of competition authorities are realised by firms and only benefit consumers indirectly. I will close with a few comments on what might be the most important—but, equally, the most elusive—set of benefits generated by the application of competition policy, namely those that occur even when the competition authorities are inactive.

## The benefits of competition

Competition is a process of rivalry between firms, each seeking to win customers’ business. This rivalry may occur in a number of ways—some firms compete on price, some focus on developing the quality of existing products or services, while still others use entrepreneurial or research skills to develop new products or services. When competition is vigorous, this rivalry ensures that no part of the market remains unexplored and no aspect of the offer made by producers to consumers remains untested. The consequences of this are that prices will typically be bid down to an efficient level of costs, a diversity of product offerings will come on to the market that matches the heterogeneity of consumer needs and tastes, and the rate of innovation will be high.

From the point of view of firms in the market, vigorous competition of this type is a mixed blessing. On the one hand, competition often keeps people working at their best—it provides the kind of challenge that often produces a truly innovative response, and it can bring the

best out of a firm and its senior managers. On the other hand, competing in a very competitive market can be hard work, and not everyone wants to have to run at full speed all of the time. More important, and more subtly, managers in very competitive markets have only limited control over their environment. They often have to act when they are not ready and they sometimes need to do things more quickly and less efficiently than they think that they should be done. The constant striving between rival firms in a competitive market can sometimes lead to some waste and duplication, and the whole thing often seems to create a rather untidy mess. Many managers, however intellectually and emotionally committed they are to competition, know—or think that they know—that they can do better. For them, competition is not only tiring, it is also frustrating. And of course, to cap it all, profits are usually somewhat harder to earn in competitive markets than they are in more monopolistic markets.

### **What role does competition policy play in all of this?**

Competition policy is, by design, both selective and episodic. The vast majority of markets, including some that are in fact not very competitive, escape through the net, and only a few markets come to be the subject of investigation. In the UK, well under 5% of all mergers end up at the Competition Commission, and we have been doing an average of 1–2 market inquiries a year over the past few years in a country that hosts literally hundreds of markets which might, in principle, be investigated. Further, when we do get involved in a market, we rarely stay there for very long. Although our investigations (including the preliminary work done by the OFT) might seem like an eternity to the parties concerned, we conduct our investigations and then leave the market relatively quickly (the investigations undertaken by the Competition Commission have fixed time limits), occasionally leaving a behavioural remedy in place for a couple of years. The contrast with regulation couldn't be clearer: we do not have an ongoing brief to oversee the performance of a particular market, we do not play a role in overseeing senior management decisions, and we do not have an ongoing responsibility for the evolution of a sector as a whole over long periods of time.

In fact, competition policy is just exactly what one might invent if one thought that markets are, on the whole, working fairly well. More interesting, and more to the purpose here, the selective nature of competition policy means that it is designed to yield large pay offs from minimal resources. Competition policy—and the Competition Commission in particular—only swings into operation when serious, egregious problems are believed to exist. Although further examination does not always sustain such fears, the existence of such fears usually warrants a further investigation. And, because it concentrates on what might be serious problem mergers or markets, when a problem is encountered, it is often quite a big one. It follows from all of this that, provided the preliminary screen for possible problem mergers and sectors is not too wildly inaccurate, one expects to find that the benefits delivered by this kind of policy are high relative to its costs. And, as it happens, that is exactly what one does find.

### **Consumer benefits**

The easiest benefit of competition to quantify is that arising from lower prices, and price fixing cases are the obvious place to start an evaluation of competition policy. The past decade has seen numerous cases brought by authorities around the world, and the numbers are large. The lysine case in the US was estimated to have done \$78m in harm to consumers, slightly less than the citric acid cartel (\$100m damages). The ready mix cartel in Germany generated damages of €112, the hydro-power electric case in Norway yielded damages of €140 and the hotel association cartel in Spain caused €180m in estimated harm.<sup>1</sup> Overcharges paid on vitamins imports during the vitamins cartel that lasted between

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<sup>1</sup>See *Report on the Nature and Impact of Hard Core Cartels and Sanctions Against Cartel Laws Under National Competition Law*, OECD, April 2002.

1989 and 1999 were estimated to be about \$72m per annum across nine countries where data could be gathered. To put this in perspective, the national budgets of the competition authorities in the various countries where these effects were felt sum up to about \$95m annually.<sup>2</sup>

More broadly—and moving beyond price fixing cases—in 2000 the Competition Commission in the UK found that new car prices were 10% too high, leading to a customer detriment of about £2bn per year.<sup>3</sup> In 2003, the Commission found that the magnitude of excess pricing in extended warranties was between £116m and £152m per annum.<sup>4</sup> Similarly, in 2003 mobile phone operators were judged to have overcharged on termination of calls by up to 40%, and the remedy imposed was judged likely to result in gains to consumers of £325m–£700m in total over the 4 years during which it is in place. This is quite a return from the 12 months and £2.5m that the Competition Commission invested in this case (the subsequent Judicial Review cost a further £158k). And, to take one final example, the inquiry into banking services provided to small and medium-sized businesses found that the major clearing banks had over charged (through foregone interest payments) their customers by £525m per annum for the three years preceding the reference.<sup>5</sup> The remedy put in place was judged by three of the major clearing banks themselves to have cost them £373m in 2003 alone (the fourth didn't report a figure). The Commission spent £2.88m on this case.

Let me make three observations about these numbers.

First, it is important to put these benefits into their proper perspective, namely the cost to the public purse of the activities that delivered them to consumers. These four cases alone have generated savings to consumers of many multiples of the annual budget of the Competition Commission (which is around £25m), a number which, in turn, is much larger than the amount of money spent in each individual case. This is a decent return on money spent by any reckoning.

Second, it is worth being clear that I am not being selective in my citation of the evidence. Of course, not every case generates benefits on this scale, but that, as I remarked earlier, is not the point. Competition policy only swings into operation when really serious competition problems are thought to exist, and that means that it is in the nature of the policy that there will only ever be a few cases and, consequently, only a few big 'winners'. And, as book publishers, music companies and film producers (to mention only three) know, it takes only one or two big winners to cover the running costs of the whole operation. The fact that not every case generates benefits in excess of the costs of conducting the case is neither here nor there.

Third, and finally, these are only the consumer benefits of competition policy that we have been able to measure with any accuracy. There are many other cases where benefits to consumers have come which we have not been able to measure with any accuracy. In some cases, these are intangible benefits in the form of better service or a wider diversity of products, or benefits which come in the form of increased innovation whose ultimate consequences are very difficult to track down.

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<sup>2</sup>See *The Deterrent Effects of National Anti-Cartel Laws: Evidence from the International Vitamins Cartel*, Working Paper 02-13, December 2002.

<sup>3</sup>*New Cars: a report on the supply of new motor cars within the UK*, Cm 4660, April 2000. For discussions of this case, and other cases which attempt to quantify the benefits from competition, see *The Benefits from Competition: some illustrative UK cases*, DTI Economics Paper No 9, July 2004.

<sup>4</sup>*Extended warranties on domestic electrical goods: a report on the supply of extended warranties on domestic electrical goods within the UK*, Cm 6089 (1-111), December 2003.

<sup>5</sup>*The supply of banking services by clearing banks to small and medium-sized enterprises: a report on the supply of banking services by clearing banks to small and medium-sized enterprises within the UK*, Cm 5319, March 2002.

However, this said, it is also important to note that competition policy delivers benefits to firms themselves above and beyond the benefits—measured and unmeasured—that flow to consumers. Let me now turn to these.

## Benefits to producers

Competition policy is about ensuring that markets are, and remain, competitive. This brings benefits to consumers eventually in all of the ways that we discussed earlier. However, eliminating anti-competitive practices and dismantling monopoly positions that lead to abuses also benefit firms whose business suffers from these practices and abuses. A monopolist that raises prices to its consumers downstream has every incentive to try the same trick in reverse upstream, squeezing its suppliers as much as possible. A dominant firm that chooses to maintain a quiet life in its market may go out of its way to limit the actions of smaller rivals whose anxiety to get ahead is likely to disrupt its quiet life. All of these actions adversely affect consumers in the long run because they damage the process by which competition operates, but they also do more direct damage to the firms that feel their effects, and whose innovative activities are, as a consequence, unnecessarily restrained. If, as I am sure we all do, one feels that it is important to nurture the activities of small and/or entrepreneurial businesses, then the effects that competitive abuses have on other businesses are likely to be a concern.

As it happens, a great many of the cases that come to the Competition Commission involve intermediate, or business to business markets. The recent proposed merger between Stena and P&O concerned several Irish sea ferry routes used by haulage firms, many of which (and those most likely to be adversely affected by the merger) are small, family owned businesses.<sup>6</sup> Most of the likely adverse effects of the many local newspaper mergers that we have investigated will be felt mainly by the small, local businesses that use these papers to advertise. On a somewhat larger scale, many of the suppliers adversely affected by the supermarket purchasing practices condemned in the 2000 Supermarkets inquiry (which spoke about a ‘climate of fear’ created by such practices) are small entrepreneurial firms—farmers, small food processing firms and the like—and many of them are responsible for the innovative new products that we find on the shelves of our local supermarkets. Similarly, those affected by the practices of the major clearing banks uncovered during the 2002 inquiry into Banking Services for Small Firms were small and medium-sized businesses. And, finally, the 2003 inquiry into Veterinary Medicines found effects arising from the way that medicines were dispensed that disadvantaged pharmacists.<sup>7</sup>

It is important to recognise that businesses large and small are adversely affected by anti-competitive activity. Despite all the fuss about the quality of television on offer to viewers, the core of adverse finding in the recent merger between Carlton and Granada turned on the merger’s likely effects on a group of large, well established firms who rely on television advertising to reach out to their consumers. The inquiry also found likely adverse effects on the remaining ITV franchisees arising from the merger, but found no adverse effects on independent television producers. Similarly, one of the adverse consequences of the high termination charges set by mobile phone operators was a large transfer of profits from fixed line phone operators (including that well known small firm, BT). Since termination charges are passed through to callers, high termination charges set by mobile phone operators are perceived by users of fixed line phones as high fixed line charges—an interesting instance where a firm that raises its prices disadvantages its rivals!

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<sup>6</sup>*Stena AB and The Peninsula and Oriental Steam Navigation Company: a report on the proposed acquisition of certain assets relating to the supply of ferry services on the Irish Sea between Liverpool-Dublin and Gleetwork Larne*, February 2004.

<sup>7</sup>*Veterinary Medicines: a report on the supply within the United Kingdom of prescription-only veterinary medicines*, Cm 5781, volumes I and II, April 2003.

No one seriously thinks that competition policy ought to provide a safe haven for small firms just because they are small, or that it ought to be used to promote entrepreneurship in some way or another. However, anti-competitive acts that harm other firms ultimately reduce their competitive initiative and their incentives to innovate. Quite apart from the adverse long run effects that it has on consumers, this is bound to reduce the basic vitality of businesses. If you are unsure of just what this might mean, talk to any of the smaller software producers (like Netscape) who have to live in the shadow of Microsoft, or any of those firms that it deals with in related businesses (such as Sun, the creator of Java). Competition policy was not designed to make life easier for these firms, but it was designed to prevent firms like Microsoft from making their life unnecessarily difficult.

### Deterrence effects

I have argued that competition policy typically delivers benefits to consumers that vastly outweigh the rather modest costs of running the competition policy regime in the UK. I have also argued that the benefits of an active competition policy go further, since firms also benefit from the relief that attacks against monopolistic abuses bring. All of this said, however, I think that there is a third source of benefits, and, although I do not know for sure, I think that this third source of benefits may deliver more than either of the two that I have already discussed. And, the charm of this third source of benefits—called ‘deterrence effects’ by economists—is that it is delivered by competition authorities even when they are inactive (so long as people think that they might become active).

At the back of every decision made by competition authorities—whether it be to prosecute a particular cartel, clear a particular merger or set prices in a particular regulated sector—is a line of reasoning. This line of reasoning, or argument, is, of course, specific to the particular case in hand, but it often has implications for the activities of firms in other sectors. Indeed, smart authorities write their decisions in particular cases with an eye to the broader applicability of their reasoning. And, firms contemplating a bit of price fixing or a particular merger, or deciding whether to appeal a licensing change proposed by their regulator to the Competition Commission, can—and do—use these past decisions to help guide their choices. This is, of course, competition policy in action, even if the authorities themselves are not actually acting. And, to the extent that firms desist from particular forms of conduct or particularly anti-competitive mergers without troubling the authorities, real resource savings are realised in both the private and the public sector.

One of the joys of deterrence effects—and I speak as a former professor of economics here—is that they are very hard to measure with any confidence. One of the few studies that tried to ascertain the impact of the simple existence of a competition authority on the price fixing behaviour of firms was that which I discussed earlier in connection with the international vitamins cartel. Comparing countries with and without an active competition enforcement regime suggested that prices were notably higher in the latter. The estimates suggest that the absence of the competition regime in the UK might have led to overcharging on the scale of a further \$30m per annum. There are two interesting things about this number: first, it is about 50% larger than the actual over-charging that occurred in the UK (meaning that the deterrence effect is large in this case) and, second, it is about 65% of the total cost of the UK competition policy regime in 1999/2000. This is not a bad return on doing nothing more than existing!

Deterrence effects operate when cases set precedents that everyone understands and accepts. In the case of local radio station consolidation, the Commission’s decision on the Galaxy-Vibe merger in the Bristol area has been widely interpreted as ruling out ‘thick’ consolidation while leaving open the possibility that ‘thin’ consolidation can bring together radio stations in different parts of the country provided that market shares do not get too

large in any particular region.<sup>8</sup> It is impossible to know how many possible mergers that would have transgressed this rule did not happen, but most people in the sector believe that it is a number greater than zero. Deterrence effects also operate when firms begin to modify their behaviour during the course of a case, in anticipation of a finding. Although it is too early to say for sure what, if any, adverse effects of competition the current Store Cards inquiry will uncover, many people have noticed that some retailers (like IKEA) have begun to make large cuts to the APRs that they charge on their store cards, and some of the new store cards now being introduced have much lower APR's than many existing cards. This is not a bad payoff for an investigation which has only just started!

By way of digression, it is worth noting that substantial real resource savings can arise even during cases when parties come to us with a clear understanding of what the issues are, and what methodologies are going to be used to explore them. In this situation, the knowledge of the 'rules of the game' enable the parties to focus on the arguments that really matter, and make their points economically and efficiently. The recent merger proposals concerning Safeway were conducted along ground rules which had been established in the larger Supermarkets inquiry of 2000.<sup>9</sup> Those of you who have followed recent cases involving local newspaper mergers will have seen that they set precedents which are actively used by all of the parties in making their decisions. Much the same applies to recent rail/coach/bus mergers. And, finally, the Competition Commission's various investigations in the regulated sectors has established benchmarks or practices which are routinely used by both regulated firms and their regulators (for example, in the methods for calculating the cost of capital).

Deterrence effects are basically about everyone knowing the rules of the game, and, when people who understand the rules are smart enough to discipline themselves to follow those rules, deterrence effects deliver. It is a test of effectiveness of any legal system—and of any selective and episodic competition regime that one might want to design—that it is, and should be, more or less self-policing. Indeed, my private lawyer friends tell me that they spend much more time telling their clients what we are likely to do in any given circumstance than they do in helping them to defend themselves in a case that has come before us.

Of course, not all of the issues or methodologies are clear cut in any particular case, and market conditions do change in a way which can make precedents less obviously germane even in the same market setting some years later. There is, therefore, often a good reason for a firm to elect to argue its case before the authorities. And when firms do this, there is no presumption that they have, somehow, failed to follow the rules. But, equally, one might say that this is exactly the kind of case that one wants to see investigated by competition authorities—a case where the established rules and procedures do not seem to apply or where circumstances have changed in an important way in a particular sector, and where, as a consequence, further guidance is needed.

## Conclusion

The current challenge for those, like me, involved with competition policy is to make the system work. This means taking on the right cases, analysing them properly, reaching the right decisions for the right reasons, explaining our reasoning, and doing so without a profligate expenditure of public money. When this happens, competition policy is worth it. And, as I have tried to show you this evening, the competition policy regime in the UK does deliver the three kinds of benefits that I have discussed today.

Let me close by emphasising the two main points that I have tried to make today.

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<sup>8</sup>*Scottish Radio Holdings plc and GWR Group Plc and Galaxy Radio Wales and the West Limited: a report on the merger situation*, Cm 5811, May 2003.

<sup>9</sup>*Safeway plc and Asda Group Limited (owned by Wal-Mart Stores Inc); Wm Morrison Supermarkets PLC; J Sainsbury plc: a report on the mergers in contemplation*, Cm 5950, September 2003.

First, it is worth emphasising that many of the benefits that come from the proper application of competition policy are felt in the first instance by firms. This is a point of some importance for those who seem to think of competition policy as just an added and unnecessary burden on business. Competition policy is sometimes a burden on business, but only on those businesses that try to unfairly disadvantage their rivals in ways that reduce their competitive abilities or incentives to compete vigorously.

Second, I believe that the benefits delivered by competition policy to consumers and firms alike add up to a large multiple of the costs that the public sector devotes to competition activity. This is certainly true if one confines attention to only that fraction of consumer benefits alone which can be measured with tolerable accuracy: our budget could be funded many times over out of the measured benefits generated for consumers by a few of our decisions over the past few years, and still leave substantial benefits left over for consumers. There may well be some people who do not regard this as value for money, but then again I am told that some people believe that Elvis is still alive and living happily in Southend-on-Sea.

# PROFITABILITY ANALYSIS AND COMPETITION POLICY<sup>1</sup>

*February 2005*

The issue of profitability is one that is central to the analysis of competition policy. Oxera's paper, 'Assessing Profitability in Competition Analysis',<sup>2</sup> can be used as a platform for such a study, being largely concerned with the question of how best to measure profitability. This is an important question, but its very complexity begs a further question, namely, 'why bother?' This article addresses this second question.

In order to answer the 'why bother?' question, one needs to think about just why an analysis of profitability might be of interest to a competition authority, and what kind of profitability analysis would interest that authority most. The Competition Commission's guidelines for market investigation references are particularly helpful in this respect.<sup>3</sup> They talk about profits as a 'signal' of competitive conditions in a market, and also as an 'incentive'. In this, the guidelines mirror countless textbooks of economic theory that talk about anticipated profits as the driving force bringing people to market, and about realised profits as a signal which ought to lead to longer-run adjustments in market structure through entry (or exit) and the expansion of existing players. Furthermore, they warn us not to look at profitability in isolation, but only in the context of an overall assessment of the competitive conditions of the market.

To say that profits are a 'signal' is to assert that they contain useful information, and that inferences can be made about underlying drivers of competitiveness in a market from observable outcomes like profitability. This is, in many ways, a backward-looking exercise: its goal is to infer something about what must have happened from what we observe to be its presumed consequence. On the other hand, to say that profits are an 'incentive' is to say that they are a spur to action, that they may affect the conduct of firms in a market, and can do so in a way that affects future profit outcomes. This, by contrast, is a more forward-looking exercise: we infer what will happen in the future by looking at the profit incentives currently facing players in a market.

My answer to the 'why bother?' question turns on these two roles that profits play in the analysis of market dynamics. A distinction can be made between 'backward-looking' profitability analysis, which uses observed profits as a possible indicator of how competitive market conditions actually are (or have recently been), and 'forward-looking' profitability analysis, which explores what might happen in a market in certain circumstances. Backward-looking profitability analysis often plays a role in the market investigations undertaken by the Competition Commission, but it is not often significant in merger analysis; forward-looking profitability analysis can, and often does, play a role in both, but one often finds it to be a central feature of merger analysis. My bottom line is that backward-looking profitability analysis is a useful, if somewhat limited, tool for competition authorities to use, but that forward-looking profitability analysis is likely to be much more central in many cases.

## **Backward-looking profitability analysis**

Competition is generally played out on a stage, and the outcome of any particular competitive process often turns on the particular characteristics of its supporting stage. The

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<sup>1</sup>This article is based on 'The Future of Profitability Analysis in Competition Policy', a presentation by Paul Geroski at the Oxera conference, 'Profitability Analysis in Competition Law', London, 8 February 2005.

<sup>2</sup>Paper prepared for the Office of Fair Trading, July 2003, available at [www.oxera.com](http://www.oxera.com).

<sup>3</sup>Competition Commission (2003), 'Market Investigation References: Competition Commission Guidelines', June.

Competition Commission's market investigations tend to focus on 'features' of a market—principally the market structure (including entry barriers and switching costs) and the conduct of suppliers, buyers and consumers—which condition the decisions made by firms about pricing, investment, entry and exit. These choices link the features of the market which condition choice with those market outcomes that are a consequence of choice, including the profitability of firms operating in the market. The Commission's task is to identify features of the market that have an adverse effect on competition. It follows then that, if profits in a market are persistently high, this ought to be a traceable consequence of one or more feature(s) of the market.

The link between features and market outcomes means that the observation of persistently high profits could be used as a signal of the general state of competition in a market. This is the classic use of profitability analysis in anti-trust cases, and has been a feature of many cases. A brief description of the analysis of profits undertaken in a recent Competition Commission investigation into banks and their small and medium-sized business customers (SMEs) would be helpful here.<sup>4</sup> In this inquiry, the Commission calculated that the four largest clearing banks had earned excess profits totalling £2.2bn over a three-year period between 1998 and 2000. This calculation was based on the Commission's assessment of profits derived from equity capital employed in the supply of banking services to SMEs, and this return on equity was then compared with their cost of equity (estimated using the capital asset pricing model, CAPM). The difference between the two was thought to be far larger than could have been caused by measurement error, and the inference was made that competitive problems existed in this market.

Even getting this far was a major exercise, and there were several particularly difficult issues that required careful consideration. First, an allocation of total shareholder equity to SME services had to be made. This was based on the requirements of the UK Financial Services Authority in relation to regulatory capital, and an amount was added to equity to reflect the cost of internally generated intangible assets (specifically relating to staff, customers and IT). For one bank, an adjustment was made to reflect the Competition Commission's assessment of an efficient cost-income ratio. Cyclicalities were also considered, and an adjustment for bad debt was made to reflect the fact that current levels were below their long-term sustainable level. Similarly, an (upwards) adjustment to pension costs was made to allow for the fact that, during the period under consideration, several schemes were in surplus, and were, therefore, enjoying a contribution holiday.

There are several problems with simply using high observed profits on their own to signal an absence of competition. For a start, as discussed, there is a whole range of measurement issues and decisions as regards treatment of various items that need to be made, which sometimes makes it very hard to measure profits with accuracy. Furthermore, one needs to construct a sensible benchmark against which to compare measured profits (the Commission normally uses the cost of capital or the cost of equity calculated using the CAPM). What this means, of course, is that, for traditional profitability analysis to be persuasive, it needs to be shown to be robust to a range of measurement errors and differing assumptions. The Oxera report contains a fairly thorough discussion of a number of measurement problems that might crop up in any particular case.

A second problem with making inferences about the state of competition from measured profitability is that it is a one-sided analysis. A monopolist may well take its reward in the form of high profits, but, equally, it might also use its position to enjoy the easy life instead. Furthermore, a monopolist that has had to compete to acquire its monopoly position may well have dissipated many of the rents that that position gives it. Either way, the outcome is

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<sup>4</sup>*The supply of banking services by clearing banks to small and medium-sized enterprises: a report on the supply of banking services by clearing banks to small and medium-sized enterprises within the UK*, Cm 5319, March 2002.

that a firm with market power that opts for the quiet life will not be seen to be earning persistently high profits. It follows, then, that it would not necessarily be correct to infer the absence of a monopoly problem from the absence of persistently high profits.

Of course, one might well feel that the same principle applied in reverse, and there is a limited sense in which this is true. A perfectly competitive firm may earn high profits in a particular year by chance, and it would, therefore, be imprudent to infer the existence of a monopoly problem from the observation of a single year's high profits. That said, good luck is rarely persistent, and most people feel reasonably comfortable inferring the possible existence of monopoly from the observation of persistently high profits over a number of years. Of course, a firm that is more efficient than its rivals year in and year out is likely to display persistently high profits, but that may well be because it has a monopoly lock on a particularly scarce asset or a particularly useful byte of knowledge, or because it has been able to take advantage of its suppliers.

### **The analysis of measured profitability**

However, the real problem with the type of backward-looking profitability analysis described above is that it does not go far enough. An analysis that concentrates on measuring profits as accurately as possible—that concentrates on obtaining the clearest signal of market power that is possible—still founders on the problem that the inference from high profits of particular features of a market which have an adverse effect on competition is not always straightforward.

Put another way, since profits are simply a residual that emerges after a firm's costs have been subtracted from its revenues, one can never be very clear why profits are high—it could be high prices swelling revenues or superior efficiency reducing costs, or perhaps both. There is, in fact, just so much that one can infer about the drivers of competition by looking at one number. To make the traditional inference from persistently high profits of a particular feature of the market that has adverse effects on competition, one needs to be sure that it is that feature, and not some other, which causes the high profits that one observes. Since many features of a market affect the revenues and costs of firms, it is rarely going to be the case that links between particular features of the market and profitability will be easy to establish. The Competition Commission's guidance on this is clear:

at points in time the profits of some firms may exceed what might be termed 'the normal level'. Reasons for this may include, for instance, cyclical factors, transitory price or other initiatives, the fact that some firms may be more efficient than others, the fact that some firms may be earning profits gained as a result of past innovation ...

All of this leads to the conclusion that any backward-looking analysis of profitability should have two components: a measurement exercise (answering the question: 'are profits persistently high?'), and an analysis of profitability (answering the question: 'why are they high?'). While a Phase I investigation might well focus on the first question, it is difficult to imagine any Phase II investigation, which relies on backward profitability analysis being complete, if it has not addressed—and answered—the second question.

There are several ways that one can think about analysing measured profitability. One rather classic methodology is to use statistical analysis to identify the major exogenous drivers of profitability, for example by regressing measures of profitability across a sample of firms in a particular market over time against a range of measures of market structure or conduct. These exogenous variables ought, in principle, to measure (directly or indirectly) those

features of the market that might be having an adverse effect on competition. An analysis along this line was conducted in the supermarkets inquiry,<sup>5</sup> which looked at the possible determinants of the prices or profits of particular stores, and how much they were affected by local competition. Another method is to collect data on a natural experiment (eg, an exogenous change in market structure caused by regulatory changes), and observe the consequences of the change induced by the experiment on observed profit outcomes. In both of these methodologies, one is trying to establish a clear link between one or more features of the market and the profitability of firms operating in that market; that is, one is trying to identify the drivers of profitability.

There is a third kind of backward-looking analysis, which can take one or two forms. One is what is sometimes referred to as a 'flow-of-funds' analysis, which sets out the various flows of funds that take place between the different players in a market. The object of this kind of analysis is less that of linking profits to different features of a market than of understanding which types of business account for the profits of particular firms, which goods and services and which transactions seem to matter most. Flow-of-funds analysis also helps one to understand the inter-relationships created by market transactions, and may help one to understand how the total surplus created by the market is distributed among its various inhabitants. Similarly, an 'activity analysis' of profitability (or revenue) that identifies which activities undertaken by a firm contribute most to profitability helps to identify which parts of the value chain are most important, and which activities undertaken by a firm seem to matter most.

For example, the Competition Commission found a flow-of-funds analysis useful in the extended warranties investigation.<sup>6</sup> Extended warranties are contracts that extend cover given under a guarantee attached to an electrical good when it is purchased. There are two types of such warranties: insurance-extended warranties and service-backed warranties. In the former, the consumer is directly insured against the cost of repair or replacement; in the latter, a repair or replacement service is given directly to the purchaser. A flow-of-funds analysis in this case turned out to be essential to understand the relationships between consumers, retailers, third-party insurance (and reinsurance) companies (which write the extended warranties), administrators (who handle claims), and those who provide repair services. In this case, in-house provision of some insurance and repair services by retailers made understanding these relationships particularly tricky. The analysis revealed that a sizeable chunk of profits was being earned by in-house reinsurance, an activity that, at first sight, seems to be at some distance from the market at the centre of interest.

Similarly, an activity analysis was undertaken in the banks inquiry referred to above. Having ascertained the magnitude of their profits from SME activities, the next logical questions to ask are: 'which activities?' and 'how?'. The Commission considered the various sources of the banks' profits for loans, current accounts, deposit accounts, and other service offerings. The analysis suggested that the high profits were being generated on short-term deposits (rather than on loans as originally thought), largely because the banks were not paying interest on accounts. This, as readers of the report know, had a decisive effect on both the conduct of the inquiry and on its outcome.

Flow-of-funds or activities analysis can be particularly valuable in identifying the key business segments, transactions and agents in a market. It may not always be possible to conduct a full profitability analysis of these segments, transactions or agents, due to difficulties in allocating costs and/or capital, but undertaking the analysis does help one to understand where profits (or at least revenues) come from. Furthermore, it enables an

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<sup>5</sup>*Supermarkets: a report on the supply of groceries from multiple stores in the United Kingdom*, Cm 4842, October 2000.

<sup>6</sup>*Extended warranties on domestic electrical goods: a report on the supply of extended warranties on domestic electrical goods within the UK*, Cm 6089 (1-111), December 2003.

identification of those parts of the market and those market players that are worth further investigation.

### Forward-looking profitability analysis

This article began by drawing a distinction between profits as a ‘signal’ and profits as an ‘incentive’, but thus far has only discussed using profits as a signal of market power. As stated above, this is essentially a backward-looking exercise that attempts to ascertain what gave rise to the profit outcomes observed in a market. However, to the extent that profits are an incentive—to the extent that the expectation of profits in the near future creates incentives for agents to take certain decisions or actions—a more forward-looking approach to profitability analysis should be taken.

The most natural setting for this kind of profitability analysis is a merger. The great intellectual challenge of merger analysis is that one cannot know for sure what the consequences of the merger will be until after it occurs, which of course means that the decision about whether to allow the merger to proceed will always have to rely on forming expectations about likely outcomes. The natural way forward here is to take firms at their word—that they are interested in looking after their shareholders’ best interests—and assume that if a profitable opportunity comes their way, they will take it. That is, if the merger seems likely to create an opportunity to increase profits by taking advantage of some market power created by the merger, we must presume that the merged firm will take advantage of that opportunity.

This is, of course, what is meant by profits being an incentive, and it opens up an important line of profitability analysis. The kind of analysis considered here involves exploring the incentives that the merged firm has to pursue certain types of policy. This effectively means exploring the profitability of taking certain types of action. Of course, to do this properly, one must understand the basic drivers of profitability in the market, and this means that the forward-looking calculations of analytical profitability analysis rest in part on the type of backward-looking profitability analysis discussed above. Nonetheless, forward-looking profitability analysis is an analysis of what might be, not what was, and that makes it different from the analysis of profitability discussed earlier.

A common example of this kind of profitability analysis is the analysis of failing firms;<sup>7</sup> that is, asking the question of whether the target of a takeover would survive as a viable competitor in the absence of the merger. However, there is a second example of forward-looking profitability analysis that I believe is—or will be—more commonly used. This particular piece of analysis was undertaken during the investigation of the acquisition of the ScotRail train franchise in Scotland by FirstGroup, the (by far) leading supplier of bus services in Glasgow.<sup>8</sup>

The main concern in this case arose where bus and train routes overlapped and, in particular, focused on the question of whether FirstGroup would have an incentive to shift passengers from bus to rail (or, less likely, from rail to bus) by increasing bus fares or reducing service frequency. Essentially, this turns on how variable bus costs are, and how sensitive passengers are to inter-modal differences in fares or service quality (and, more generally, on how price-sensitive they are in choosing their preferred mode of travel). The Commission’s calculations showed that FirstGroup would have an incentive to try to switch passengers and rationalise their bus network and, when we combined this with the results of

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<sup>7</sup>This kind of analysis featured in, for example, *Eastman Kodak Company and ColourCare Limited: a report on the proposed merger*, Cm 5339, December 2001.

<sup>8</sup>*FirstGroup plc and the Scottish Passenger Rail Franchise: a report on the proposed acquisition by FirstGroup plc of the Scottish Passenger Rail Franchise currently operated by ScotRail Railways Limited*, June 2004.

our survey showing the numbers of passengers who would shift mode, we concluded that a substantial lessening of competition (SLC) existed on overlap routes.<sup>9</sup>

A similar type of analysis featured recently in the proposed merger of Knauf and Superglass (both suppliers of glass-fibre insulation).<sup>10</sup> This merger would have created a firm with a market share several times larger than that of its nearest rival (particularly in the loft-insulation segment of the market). As such, the merged firm would, in principle, have an incentive to act as a traditional ‘dominant firm’ (sometimes referred to as a ‘Stackelberg leader’), restricting output to raise prices. Whether this is a profitable strategy depends on the elasticity of demand, the variability of the firm’s costs, and how likely it is that smaller rivals will replace the output withdrawn from the market. In this case, the Commission’s analysis revealed a wide range of circumstances where the policy of restricting output would be a profitable one for the merged firm to follow, leading us to believe that the merger would give rise to an SLC.

Forward-looking profitability analysis is, I believe, useful, primarily because it is often a good way to make a precise exploration of a set of concerns. One will never know exactly what will happen after a merger, but there should be an expectation about whether some particular course of affairs is more likely than not. Analysing the incentives of the merged firm to take particular actions, such as trying to shift passengers from bus to rail, enables a clearer understanding of the circumstances in which they are likely to occur. This, in turn, makes the formation of such expectations both more straightforward and more open to debate. Of course, taken on its own, a particular piece of forward-looking profitability analysis may not be decisive, but in conjunction with other evidence, it can clarify the analysis of the incentives of parties to take certain kinds of action.

### Some final thoughts

So, where does all of this lead us? This article has addressed the question ‘why bother measuring profitability?’ I would conclude that it is well worth bothering with profitability analysis if one does it right. Furthermore, there are two different senses in which one must think seriously about ‘doing it right’.

The first is that one must push beyond a number—or a set of alternative estimates of the same basic number—and ask where that number came from. It is a legitimate practice for a Phase I authority to assert that persistently high profits may well signal the existence of a problem with competition in a particular market (although the inverse is probably not true). It is, however, not good enough for a Phase II authority to make the same inference. To identify whether a particular feature of a market has an adverse effect on competition, one must push well beyond the observation of high profits, and ask why they are high. This means that what I have called backward-looking profitability analysis must push well beyond computing a particular number and try to understand what features of the market underlie that number.

The second sense in which one must think seriously about ‘doing it right’ is that one must often go beyond establishing what has happened in a market (and why), and look at what might happen in the future. This is clearly a priority in any kind of merger analysis, but I believe that the scope for forward-looking profitability analysis is broader than this. No market inquiry that finds an adverse effect on competition arising from a particular feature of

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<sup>9</sup>A similar calculation was made in *National Express Group plc and the Greater Anglia Franchise: a report on the acquisition by National Express Group plc of the Greater Anglia franchise*, November 2004. In this case, however, network effects dominated the calculations, since many of the users of National Express coaches travelled into London and then out using another coach. Shifting them to the trains generated a further loss of revenue that, in this case, was extremely large.

<sup>10</sup>*Knauf Insulation Limited and Superglass Insulation Limited: a report on the proposed acquisition of Superglass Insulation Limited by Knauf Insulation Limited*, November 2004.

the market can stop there—the remedies phase of any investigation must always involve addressing what can be done about that feature of the market. Once one begins to think about changing the features of a particular market, one must ask what the likely effect of those changes are going to be, what incentives they will give to the players of the market to alter their behaviour and, as a consequence, what actions these players are likely to take in response to the changes. Forward-looking profitability analysis is a very good way to think through this problem, and I think that it is, and will always be, a central feature of good anti-trust practice.

# COMPETITION POLICY AND NATIONAL CHAMPIONS

*March 2005*

## Introduction

Many people believe that there is an inherent tension between industrial policy and competition policy. Although people who hold this point of view typically concede that both types of policy are concerned with promoting 'competitiveness', it usually turns out that this means different things in the two different contexts. For those concerned with industrial policy, 'competitiveness' typically means a situation in which local or national businesses outperform their rivals from other localities or nation states, gaining market share and expanding profitably at their expense. These same individuals tend to think that the kind of competitiveness which competition policy is designed to promote consists of atomistic market structures populated with small firms who price at or near their marginal costs.

Perhaps the clearest expression of this tension comes in debates about national champions particularly when these debates are staged in smaller nation states. The creation of national champions is sometimes seen as the only way for firms based in a particular country to compete in a global market populated by competitive giants based in home markets that are either larger or more supportive. Yet, national champions are often national monopolists (or very nearly so), and anti-trust authorities tend to be uncomfortable with monopolies even in smaller markets. For proponents of national champions, competition policy can be an obstacle (or worse), while for many competition authorities, the creation of national champions seems like a dangerous form of meddling with markets.

In what follows, I would like to explore this particular tension. I will do so by setting out the case for national champions as sympathetically as I can, and then move on to consider a number of the more important counterarguments. I will conclude with a few remarks on whether competition policy really is an obstacle to industrial policy in this area. My own view is that there is no inherent conflict between industrial policy and competition policy, largely because the kind of 'competitiveness' which competition policy actually strives to create is virtually the only way a nation state can achieve the kind of 'competitiveness' which industrial policy proponents aspire to. National champions are, in my view, more likely to become national basket cases than national breadwinners.

## Why bother with national champions?

It seems to me that the case for creating national champions rests on the following three pillars: the notion that markets are global, the notion that enterprises need to achieve a certain critical mass to be competitive, and the notion that there are certain key sectors which a national state needs to nurture if it is to prosper. Let me consider each of these in turn.

The classic exposition of the 'global markets' hypothesis starts with the assertion that demand is fairly standardised around the world, meaning that the only major source of competitive advantage to be had is through lower prices. Further, the way to get prices down is to take advantage of economies of scale. Standardisation of product design, the construction of large scale plants located near inexhaustible sources of inexpensive labour are the practical consequences of a strategy of exploiting scale economies. If the advantages of scale economies are large, firms that confine their operations to a single (small) national market would suffer competitive disadvantages since they could always be undercut in price by a global operator who fully exploits the scale economies that are

available. Since it is unlikely that national firms operating in small economies are ever going to be able to exploit economies of scale in their national market, they are effectively going to have to become global players to survive and prosper and, in doing so, they will become 'national champions'.

This is a rather simple argument, but it has a logic which goes well beyond simplistic assumptions about demand and a boundless faith in economies of scale. A strategy of exploiting scale economies requires a number of major investments (in plant, in distribution and in developing procurement systems) that are effectively fixed costs, and covering these fixed costs means that a firm has to reach a certain size (or achieve a certain level of market penetration) before it is viable. Other activities—most notably, investment in R&D—have much the same characteristics. In markets where R&D rivalry is the key to competitive success, the need to support a large fixed cost base—many labs and scientists—and absorb the associated risks means that firms have to reach a certain size in order to be viable. In small markets, this is likely to mean the emergence of a single 'national champion'.

Both of these arguments turn on the same three basic points: there is a certain critical mass that a firm needs to achieve in order to survive and compete effectively in what is a global market, this critical mass is larger than the market in most national economies and this critical mass has to be consolidated into a single firm if it is to be effectively deployed. All of this said however, one might still ask whether it is worth it for a nation state to put all its eggs in the basket of a single national champion, and the answer to this is the third strand of the case for national champions (as I understand it).

The notion that a particular nation state ought to host (and, if necessary, nurture and promote) particular sectors is a tantalising one. Classic trade theory describes a pattern of national specialisation (according to comparative advantage), with trade assuring both sides of the benefits of such specialisation. Although national policies can be used to create or develop certain comparative advantages, the promotion of national champions goes rather further than this. In part, it springs from atavistic (but genuinely felt) fears of dependency; in part, it springs from the feeling that certain sectors are, somehow, strategically important (defence industries always seem to fall into this category for example).

I think that concerns about hosting particular sectors also springs from a more easily defended concern with what one might call 'knock-on effects'. Input-output relationships exist between firms who are buyers and suppliers of goods and services, meaning that the growth of sectors that are at the centre of rich input-output hubs is likely to stimulate growth in a wide range of complementary sectors. Similarly, it is sometimes argued that certain sectors are at the hub of information flows that are the key to innovative success, and anything which enhances their ability to innovate is likely to increase innovative activity in other sectors within their network. It follows, then, that these sectors have a legitimate claim to be regarded as 'strategically important', and if the conditions discussed above prevail, then (the argument goes) they ought to be populated by national champions.

### **Does any of this make sense?**

Attractive as these arguments seem to be, they contain some flaws. In what follows, I want to focus on the five flaws which I think are most significant.

#### ***(i) Global markets***

It is possible to debate endlessly about whether most markets are global or not. I personally do not think that many are. Even 12 years after 1992, most markets in Europe are recognisably national: the vast majority of brand names are national and rarely have much pull beyond their home market. Further, there is still an enormous price dispersion across

Europe for particular products, usually accompanied by some degree of differentiation which caters for differences in national, or at least regional tastes. Tobacco is often cited as an example of a global market because Marlboro has global brand recognition. However, the simple fact is that the world tobacco industry is largely populated by many national brands that no one has ever heard of (outside of their home market). Marlboro proves that it is possible to conduct a global strategy in this business, but it does not prove that you have to.

In fact, operating globally is more often a strategic option than it is a strategic necessity for firms. Wherever differences in tastes or needs exist between segments of a population, it is always possible to craft a strategy that caters to these differences, selling exclusively to one group or selling a range of differentiated variants of a basic product to different groups of consumers. Such strategies are often belittled with the label 'niche strategies', and they rarely satisfy the grandiose dreams of senior managers (even when such 'niches' include the whole of particular national markets). However, the simple truth is that whenever such strategies are viable, the claim that firms must operate globally to survive is nonsense.

### ***(ii) Critical mass, critical mess?***

Suppose that it is the case that there is a certain critical mass that must be assembled for firms to compete in a particular market. It might be that competition is characterised by R&D rivalry involving investments on a large scale, possibly in a range of different complementary technologies. Reaching this critical mass in a small economy might well require the construction of a single national champion of sufficient size, but this is not the only option. In particular, the fact that a large investment in R&D is required does not necessarily mean that it has to be centrally organised.

It is now widely accepted that economic activities can be brought together geographically without necessarily bringing them under common ownership and control. These pockets of activities are often called 'clusters', and they range from the justly celebrated Silicon Valley in California to the Formula One cluster in Berkshire. Clusters often work better than more consolidated forms of activities for the same reasons that parallel research projects with many competing project teams work better than big, centrally managed labs. Geographical proximity facilitates information transmission and the kinds of peer group pressure that creates competitive incentives. It also enables common assets—pools of skilled labour, distribution facilities, and so on—to be assembled and provided in common without creating a tragedy of the commons. Separate ownership allows entrepreneurship to flourish, and provides a platform for competition to occur between firms undertaking similar activities.

Creating a geographical cluster involving a number of rival firms in a particular sector, together with various up and down stream supporting activities, is, in a sense, creating a national champion, but it is a very different kind of champion than is usually envisaged. Championing a cluster is, in fact, championing the kind of intensively active market competition that makes participating firms competitive in the sense meant by industrial policy advocates. And, needless to say, it is exactly the kind of competitiveness that competition authorities favour.

### ***(iii) Abilities versus incentives***

The argument for creating a national champion basically turns on the idea that it is necessary to create a firm with the ability to compete in a tough and very competitive global market. However, it is one thing to have the ability to compete, and it is another thing altogether to have an incentive to do so. Monopolies have the ability to raise prices and, at the same time, lower their costs, but, as we all know, they often opt for the easy life. Large, highly centralised research institutions have the ability to produce major innovations, but

they often become slow, cautious and unimaginative. It is one thing to be able to do something, and quite another to decide that it is time to get around to doing it.

In fact, recent industrial history is littered with examples of firms who have had the ability to act—the command over resources, top quality senior management, well furnished labs, and so on—and yet have somehow failed to do so. The problem is almost always the same—the sheer lack of competitive pressure to act, to keep ahead and to set a standard against which the performance of senior managers can reliably be judged. In fact, most of these firms are often unable to cope with the sudden arrival of a major new competitive challenge when it comes, whether it be from Japanese car producers or low cost airlines. To buy the argument that national champions are the right way forward, one has to accept that it is ability rather than incentives which drives superior performance. However, the evidence suggests that it is incentives which, at the margin, matter more.

#### ***(iv) And who is going to choose the champion?***

It is one thing to agree that in principle there might be a case for building up a national champion, and it is another thing altogether to spot a budding champion in the making. There are two ways of identifying a potential champion: the right way and the wrong way. The right way is to think carefully about which sectors (if any) are key sectors that are strategically important for the economy, and then to ask whether some kind of support (and if so, which kind) for these sectors is absolutely necessary to ensure that they survive and fulfil their competitive potential. The wrong way to choose a national champion is to succumb to lobbying by a large, domestically powerful firm that is going through a period of poor performance or is operating in a market that has suddenly begun to mature or decline.

The sad fact is that the case for consolidation is almost always made for the wrong reasons. Large well-established firms have political access (and certainly much more access than firms in tomorrow's sunrise sectors), and the possibility that they might decline or fail usually has major employment implications. It is easy for politicians or policy makers to believe that their failure is due to mysterious (and probably malign) competitive forces out there somewhere in the global marketplace, or to nefarious foreign governments who are already propping up their own national champions in a way which creates a less than level playing field. The urge to act is reinforced by the apparent simplicity of the support required—support for consolidation plus, perhaps, a few soft loans or a few soft procurement contracts. And, in the end, a possibly well meaning policy designed to nurture the sunrise sectors of the future ends up propping up the sunset sectors of the past, littering the industrial landscape with dinosaurs whose ability to compete for political patronage turns out to be far superior to their ability to compete in their own markets.

#### ***(v) Running faster to stay still***

The final problem with promoting national champions is that those who propose support for national champions rarely think through the full consequences of their proposal. In particular, that case for supporting a particular sector always looks better if one assumes that other national governments do not support their own national champions. However, the sad fact is that support given in one country usually generates massive pressures for support to be given in other countries. And, like arms races the world over, the race to support national champions usually leads to a massive escalation in expenditure with little substantial effect.

Let me express this in a slightly different way. Support for national champions can look like a positive (or a 'win-win') sum game (because it is a win for the firm, and a win for the host country) from a national point of view, but it almost always leads to a prisoners' dilemma when viewed globally. That is, when every national champion attracts support from its host government, nothing is altered between the champions in the market (their relative positions

have not changed) but taxpayers the world over have been made worse off. It is hard to describe this as value for money spending. In fact, anything which prevents any particular national champion from receiving unfair support actually makes everyone better off, since this helps to choke off the escalation of tit-for-tat support that arises when competition between national champions in the market is replaced by competition to support national champions by their host governments. Fortunately, a well run national or supra-national competition authority (like DGComp in Brussels) can provide just this kind of check.

### Is competition policy a problem?

The proponents of national champions usually argue that public policy ought to support national champions. In some cases, this support is pro-active and policy makers are urged to create national champions in key sectors; in other cases, the case for support is directed at those so-called champions who have emerged in the market. The demand for support generally takes one of two forms: a call for public support in the form of state aids or of some other kind of public subsidy, and a call for lax competition policy. I am going to focus on the latter in what follows (arguably a tolerance for state aids is a form of lax competition policy anyway).

The major worry that is expressed about competition policy in this area is that national competition authorities will not understand the true market, usually expressed as a concern that national authorities will not recognise that the market in question is global. Insofar as this concern is effectively a demand for competition policy to be properly done, this is a demand that all competition policy makers will support with alacrity. I know of no competition authority in the world that defines markets to be national merely because its jurisdiction is national, and doing so would be a clear nonsense. However, if this concern is effectively a demand for authorities to decide that markets are global when they are actually only national, then this concern—and the case for supporting a particular national champion which underlies it—is, equally, a nonsense.

Proponents of national champions also sometimes argue that competition authorities ought to be more tolerant of price fixing (or other forms of potentially anti-competitive behaviour such as R&D cooperative agreements or restrictive vertical agreements with suppliers or buyers), and they usually argue that the authorities ought to be tolerant of consolidation waves that are thought likely to give birth to a champion. These arguments are hard to understand. Pricing fixing is, rightly, regarded as a per se violation of competition laws, and it is hard to see the case for supporting a national champion which is so inefficient that it needs to fix prices in order to survive and compete against other champions. R&D cooperative agreements and vertical agreements are subject to the rule of reason, and there is no reason why competition policy properly done cannot assess their likely effects, one way or the other. Consolidation is trickier. It may well be that consolidation is called for if a market is global and requires firms to reach a certain critical mass, but, if so, one would imagine that a competition investigation properly done would reveal this. On the other hand, tolerating consolidation which leads to a large inefficient firm with too much domestic market power and not enough international punch seems foolish. As in the area of market definition, the concern that authorities take a tolerant attitude towards consolidation is one that is easy to support if it is merely a call for competition policy properly done.

More generally, it is hard to see much merit in the argument that competition policy is an obstacle to some kind of industrial policy involving national champions. Insofar as the support for national champions is just a call for competition policy done well, it is one that everyone can support. But, the kind of 'competitiveness' that industrial policy advocates dream of seems to be based on the odd notion that a national economy competes with other national economies in the same way that firms compete with each other in markets. Interesting as it is, this view has little to commend it. The simple fact is that firms which operate in very competitive national markets are likely to prove to be competitive when they

extend their operations into world markets, whereas firms that face no real competitive challenges in their home markets rarely survive in more competitive world markets. And, ensuring that national markets are very competitive is, of course, exactly what national competition policy is all about.

### And, finally

Every policy choice involves two risks, sometimes called ‘type I’ and ‘type II’ errors. In the context of national champions, the type I error is suppressing the emergence of a national champion when that would be the appropriate choice. The type II error is that of supporting a national champion when one is not necessary. In my view, these two risks are very unequal. Failing to support a national champion forces an economy to rely on trade to meet its needs, and may require it to undertake some restructuring. Although one can see an argument that this could be unsatisfactory in certain key sectors (defence comes to mind), it seems to me that the situations where a national champion is needed are so few anyway that the probability of making a type I error is actually quite small. And, when competition policy is properly done, I think that this risk is practically negligible.

Making a type II error is, in my view, far more serious. Supporting the emergence of national champion when this is not necessary just creates a domestic monopoly. For domestic consumers, this is potentially an expensive policy choice, and it can only be justified if the success of the national champion abroad feeds back to the domestic market, and, in particular, to those consumers who have to face its consequences. It seems to me that the case for national champions rarely includes any discussion of exactly how domestic consumers are going to benefit from their activities, and I sometimes wonder whether this is basically because it is unlikely that they ever will. If so, it seems clear that we ought to be much more tolerant of making type I errors than we are of making type II errors.

In fact, one can go further than this. It seems to me that the notion that there is an inherent tension between industrial policy and competition policy is basically wrong. For anti-trust authorities, ‘competitiveness’ is about rivalry, about markets where firms actively try to gain the advantage on each other, trying a variety of different tactics and never ceasing to search for yet more tactics. Markets that are competitive in this way usually deliver prices close to costs, but they also deliver a lot more. The continual striving to out-do rivals’ leads to innovations which are truly radical. Even when the innovations produced in competitive markets are incremental, they usually occur frequently enough to lead to large cumulative effects. And, when either type of innovation occurs, the firms in such markets often pull ahead of their rivals in other, less competitive markets. Firms who do this should be a source of national pride—and indeed, they really are champions. The important point, however, is that it is competitive markets that produce such champions, not national governments.

# MARKET INQUIRIES AND MARKET STUDIES: THE VIEW FROM THE CLAPHAM OMNIBUS

*July 2005*

## Introduction

Europe has a fairly well-defined competition policy regime built up around a set of merger control rules, and Articles 81 and 82 of the EC Treaty. The recent modernisation programme has put in place the framework for harmonised application of Articles 81 and 82 across national competition authorities in Europe, and paved the way for a substantial decentralisation of their application from Brussels to the various member states. Most people agree that Articles 81 and 82 are a reasonable basis on which to build a competition regime, and that harmonisation is an impressive achievement.

It is, therefore, extremely interesting that the Competition Directorate at the European Commission (DG Comp) has recently announced that it intends to initiate several 'sector studies' (the first of which will be in financial services and energy); investigations which will differ in a number of fundamental ways from Article 81 or 82 investigations. Further, the Office of Fair Trading (OFT) in the UK has pursued a number of 'market studies' in recent years which have not in all, or even in most cases, led to action under the Competition Act (which is the legislation that has brought UK law in this area into line with EC law), as has the Irish Competition Authority (which calls them 'sector studies'). As if this were not confusing enough, the Competition Commission (CC) in the UK is currently undertaking four 'market inquiries', investigations which are neither 'market studies' nor Competition Act or Article 81/82 investigations. Further, many of these were sent to the CC by the OFT as the result of 'market studies' that it had undertaken. And, last but not least, these 'market inquiries' are not quite the same as the 154 'monopoly inquiries' which the CC and its predecessor body, the Monopolies and Mergers Commission (MMC), carried out over the 50-odd years of their joint history.

The proverbial person on the Clapham Omnibus is entitled to feel just slightly confused by all of this. For a start, it is not clear just how a 'market study' might differ from a 'sector study', nor why 'market inquiries' replaced 'monopoly inquiries', and whether either (or both) of them really are different from 'market studies'. And, even more puzzling, it is not clear why any of this activity ought to occur at all given the existence of Articles 81 and 82: what exactly is the value added here and why are competition authorities bothering with these things?

My goal in what follows is to clamber aboard the Clapham Omnibus and give an upper deck view on these questions. I will start where I am most comfortable, namely with the market inquiries carried out by the CC. I will distinguish them from the 'monopoly inquiries' which we previously carried out, and from the 'market studies' being undertaken by the OFT, the Irish Competition Authority and the sector studies undertaken by DG Comp in Brussels. I will also address the 'why bother?' question, applying it both to 'market inquiries' and 'market (or sectoral) studies'. Last, but by no means least, I will move on to the much more speculative question of how (if at all) the practice of conducting 'market inquiries' is likely to change in the near future.

## Monopoly inquiries and market inquiries

The current 'market inquiry' regime was put into place in the UK by the Enterprise Act 2002 (which refers to 'market investigations' rather than 'market inquiries'). These inquiries are designed to focus on 'adverse effects on competition' which arise where 'features of a

market' singly or in combination 'prevent, restrict or distort competition'. In the event that the investigation uncovers such problems, the CC is mandated to remedy the adverse effects on competition or any detrimental effect on customers flowing from them. The Act defines 'features' of the market as market structure, or the conduct of suppliers, or consumers. It gives the CC extensive powers to collect the information that it needs for its investigations, and powers to implement those remedies which it believes are necessary. These investigations are time limited (we are allowed up to two years) and the decisions of the CC can be appealed only by way of judicial review. The CC has developed a set of procedures summarised in published guidelines that explain how it conducts these inquiries<sup>1</sup>, and it is committed to making such investigations as open and transparent as possible.<sup>2</sup> Finally, it is worth noting that the CC cannot initiate a market inquiry on its own—it can only act if the OFT or one of the sectoral regulators sends a particular market to it for further investigation.

'Market inquiries' evolved from the 'monopoly inquiries' which the CC used to conduct under the Fair Trading Act 1973. The main differences between the two, other than the obvious difference in legal framework, are in our procedures (we are far more open and transparent than we ever were before), and in our powers (monopoly inquiries resulted in recommendations to the Secretary of State, while the Enterprise Act made the CC determinative). The 'complex monopoly' provisions of the Fair Trading Act have also disappeared, eliminating the strong distinction between 'main parties' (those who are part of the complex monopoly) and 'third parties' (those who have an interest in the case, but are not main parties) which used to be a feature of monopoly inquiries. The combined effect of these changes is that market inquiries are more inclusive (it is easier for all parties to participate when the vast bulk of the evidence is published on the web), more efficient (all of the parties know what issues to focus on) and, I believe, shorter (not least because the remedies process follows more quickly and more straightforwardly from the investigation than before) than monopoly investigations were.

### **Why bother with market inquiries?**

There are probably three main reasons why market inquiries are an important complement to the Article 81/82 prohibition system.

First, market inquiries focus at the level of the market rather than at the level of the individual firm and, for this reason, they are often a more sensible way to investigate and attack the underlying causes of particular agreements/practices, or abuses of dominance. Agreements or positions of dominance do not occur in all market settings and they do not occur at random. Rather, they typically rest on features of the market (like economies of scale, network effects, switching costs or barriers to entry) or market imperfections (informational asymmetries, weak or fragmented buyers or suppliers, inappropriate regulation), and it is usually these features of the market which sustain them. Thus, for example, an agreement amongst one or two leading firms in a market to fix prices cannot, in general, be sustained in the absence of barriers to entry, or if suppliers or buyers are active, powerful and well-informed. Clearly, attacking an agreement without, at the same time, attacking the features of the market which sustain it may have little long run effect on the nature of competition in that market. While prohibition systems—like Article 81/82—try to be tough on the consequences of agreements and practices, market inquiries are designed to identify and, if possible, eliminate the underlying causes of such things.

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<sup>1</sup>[http://www.competition-commission.org.uk/rep\\_pub/rules\\_and\\_guide/index.htm](http://www.competition-commission.org.uk/rep_pub/rules_and_guide/index.htm).

<sup>2</sup>Largely by publishing evidence it receives on the web, holding regular hearings with the various parties concerned with the investigation and communicating extensively with the parties through a series of published documents and unpublished letters. Confidential exchanges remain unpublished when the legitimate interests of the parties might be harmed.

Second, the Articles 81/82 prohibition system tends to focus on the conduct of particular firms, singly or taken in groups. They call attention to agreements or concerted practices, or they try to identify exclusionary or exploitative practices by firms with significant market power or dominant positions. Market inquiries, by contrast, examine markets that do not seem to be working well, and this is worth doing because there are many reasons why markets might not be working well which have little to do with breaching certain prohibitions. Market inquiries, therefore, focus on industry-wide features of a market rather than on particular forms of behaviour and, in doing so, they typically examine a rather broader range of competition matters than an Article 81/82 investigation would. One obvious example of this arises when legislative regulations adversely affect competition in particular markets. Such regulations should be put under the scrutiny of competition authorities and market inquiries are a good way to do this.<sup>3</sup>

Third and finally, the Article 81/82 prohibition-based system is designed to eliminate particular practices or agreements which have developed in a particular market. By contrast, market inquiries have as their goal the task of ensuring that markets which are not very competitive will be more so in the future than they have been in the past. Of course, to the extent that Article 81/82 cases create deterrence effects, they too can transform the pattern of competition in markets. But, the goal of bringing specific breaches of prohibition or abuses of dominance to an end is a narrow one, and the use of fines (the typical, but not the only, remedy applied in Article 81/82 cases) may or not be enough to eliminate abuses in particular markets or deter firms in other markets from behaving anti-competitively. Market inquiries enable competition authorities to directly address—and act on—those features of a market that inhibit competition.

### Market studies and market inquiries

‘Market inquiries’ differ from ‘market studies’ in a number of ways, most notably in their motivation, the method by which they are undertaken and in their consequences. To appreciate these points, it is worth starting by just describing the practice of market (or sectoral) studies as conducted by three leading competition authorities.

The OFT has conducted market studies for some years and, since the middle of 2002, it has completed 18 such studies. At the time of writing, there are four still ongoing. These market studies are designed to examine a sector which the OFT believes might not be working well for consumers. There is no specific statutory basis for these studies in the Enterprise Act, and, except where the OFT is specifically deciding whether to make a market investigation reference, the OFT has only general information gathering powers to use for Competition Act and Article 81/82 investigations. These studies can result in one of seven outcomes: the market is given a clean bill of health, information is published to help consumers, firms are encouraged to take voluntary action, a consumer code of practice is recommended, recommendations are made to regulators or government, enforcement actions are undertaken (under the Competition Act or Articles 81/82) or a reference is made to the CC (at the time of writing only four of the 18 completed studies have resulted in a CC reference).<sup>4</sup> The resourcing of such cases is modest as compared with market inquiries undertaken by the CC, and, as I have already noted, the OFT has more limited powers to gather information from parties than the CC. The OFT has no powers to remedy any competition problems that it encounters in these studies, and must either transform them into Article 81/82 cases or

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<sup>3</sup>As noted by the Department of Trade and Industry in its White Paper, *A World Class Competition Regime*, July 2001, paragraph 6.37, Cm 5233: *The government is keen that the Competition Commission should recommend changes to laws and regulations which it judges undermine the effective working of markets during the course of its inquiries. The final decision on how to proceed will be for Ministers who will need to balance competition considerations against other public policy considerations. The Government is committed to making a public response to such recommendations within 90 days.*

<sup>4</sup><http://www.of.gov.uk/Business/Market+Studies/cases.htm>.

refer them to the CC for a market inquiry if it believes that it has encountered a competition problem that needs to be remedied.

As far as I can tell, much the same applies in Ireland (although there is no option of transforming market studies into a market inquiry in Ireland). The Irish Competition Authority (ICA) is empowered by its Competition Act (2002) to undertake to study 'any method or practice of competition ... or any other matter relating to competition', and it can be requested to carry out such an investigation by the Minister for Enterprise, Trade and Employment. As I understand it, they see their market studies as: tackling state restrictions on competition, looking at situations where little competition exists but no firm is unilaterally misbehaving, and informing the public about competition. To date, the ICA has completed four studies (liquor licensing laws, transport, casual trading and insurance) and has several further under way (the professions and banking).<sup>5</sup>

The newest entrant onto this stage is DG Comp, which has not to date undertaken many market or sector studies.<sup>6</sup> During the modernisation programme, it was argued that DG Comp should be empowered to launch inquiries into, and take measures in, sectors that it considers are not functioning satisfactorily. Article 17 of the Modernisation Regulation (which largely reproduces Article 12 of Regulation 17) states that '*... the Commission may conduct a general inquiry into ... (a) ... economic sector and in the course thereof may request undertakings in the sector concerned to supply the information necessary for giving effect to the principles formulated in Articles 81 and 82 of the Treaty ...*'. In part, the inclusion of power to conduct sector inquiries may reflect a concern that, post-modernisation, DG Comp will no longer get a regular supply of notifications and complaints which, in the past, have given it information on particular market sectors. Further, these sector inquiries are also seen as a stimulant to more focused measures or studies that might be undertaken at a national level. Finally, these market studies will, it is hoped, contribute to achieving one of the goals of the Lisbon Agenda, namely increasing the competitiveness of firms and sectors in Europe. As I understand it, DG Comp has limited powers to gather information for these studies, has limited resources to devote to particular studies, and such studies must be transformed into Article 81/82 investigations if remedial action is to be undertaken on any competition problems that are uncovered.

### Why bother with market studies?

As should be evident, market studies are rather different from market inquiries. They are less well-resourced, and the authorities that conduct them have limited information gathering powers; they also have limited powers to remedy any competition problems they uncover. More fundamentally, there is clearly some tension between these two types of investigation. On the one hand, they are highly complementary. Market inquiries are major operations, as are Article 81/82 investigations, and it would be foolish in the extreme to launch such an operation unless there were at least reasonable grounds for believing that a competition problem actually exists in a particular sector. Market studies are an excellent way of answering this question.

On the other hand, market studies do run the risk of overlapping with Article 81/82 or market inquiries which they can lead to. The limited resources and information gathering powers

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<sup>5</sup><http://www.tca.ie/>—'section 30 studies'; for information on the criteria used, see <http://www.tca.ie/advocacystudies.html>. I understand that these are being re-examined with a view to increasing efficiency.

<sup>6</sup>DG Comp has recently conducted studies into sectors such as the liberal professions, but did not make full use of its powers under Article 17 (Article 12 of Regulation 17). In the distant past, the Commission undertook an inquiry into margarine prices (which reported in 1970) and into beer distribution (started in 1965 and resulting in a block exemption in 1984), but both of these studies were focussed on the possible anti-competitive behaviour of specific dominant firms. More recently, inquiries have been made into parts of the telecoms and music sectors; in January 2004, DG Comp began an inquiry into the sale of sports rights to internet companies, and 3G mobile phone service providers.

available to those who do market studies often means that follow-on investigations will almost certainly involve at least some duplication. The problem is at its worst when a market study is narrow and focused on a competition issue which it cannot, in the end, remedy. However, broad based market studies that raise consumer issues not caused by competition problems, or which lead to narrower, more focused Article 81/82 investigations or market inquiries seem unlikely to create problems of duplication.

That said, market studies are, like market inquiries, complementary to the Article 81/82 regime. They can have a broader focus and take in consumer issues or legislative regulations that inhibit competition, and they can shine the investigative spotlight on sectors where competition is just not working very well and where Articles 81/82 do not seem to offer much bite. They also have the further virtue of building up sector-specific expertise in competition authorities, knowledge that is helpful in other market studies (by providing cross sectoral perspective) and also in merger control. Finally, to decide which sectors are worth market studies, a competition authority must take a broad, cross-economy view of where competition problems might be present. Taking such a strategic view contrasts with the usual complaint driven process that drives many competition inquiries, and it is worth doing to regain some perspective.

It is worth trying to put the relationship between market studies and market inquiries in a nutshell. In merger investigations, we are used to the distinction between ‘Phase I’ and ‘Phase II’: phase I tries to answer the question ‘does this merger require further investigation?’ and the case goes to Phase II if the answer is ‘yes’. Yet, despite the easy analogy, I have begun to think that this distinction does not really accurately capture the relation between market studies and market investigations. One might describe market studies as ‘first phase’ investigations. They identify and explore a problem and can, in certain circumstances, remedy it—eg by exposing the adverse effects on competition of particular pieces of legislation, by naming and shaming particular parties or practices or by obtaining voluntary undertakings from the parties. ‘Second phase’ investigations—which can take the form of market inquiries or Article 81/82 investigations—only occur in this regime when competition problems uncovered in a first phase investigation cannot be resolved without access to statutory powers. The transition from Phase I to Phase II in mergers turns on whether further *investigation* is required; the transition from ‘first phase’ to ‘second phase’ market investigations turns on this, but even more it seems to turn on whether further *action* is required.

### Where are we going with all of this?

What is, I hope, clear from the foregoing is that market inquiries and market studies are two different types of exercise. They have different purposes and lead to different types of decisions and, for at least this reason, they utilise different types of procedures and require different levels of resourcing. The two types of investigations are not substitutes for each other, and they both are complements to the Article 81/82 investigations which are the staple of European anti-trust. Useful as they are, Articles 81 and 82 do have some limitations, and both market studies and market inquiries help to address many of these. For this reason alone, they are likely to be here to stay.

What is less clear is where all of this is going. As the Chairman of an organisation which only does market inquiries, I feel less than qualified to talk about how market studies ought to be conducted, and how they are likely to evolve in the near future. Let me, therefore, close with a few remarks about the future of market inquiries.

There seem to me to be three areas where we at the CC will be focusing our efforts to improve the work we do in market inquiries. First, although we have yet to approach anything like the statutory deadline for the market inquiries that we are currently doing, it

does seem to me that we ought to be able to focus our inquiries more quickly than we sometimes do, and reduce the time that they take. In part, this requires improving the simple administrative logistics of communicating with a large number of parties on a regular basis, but it also requires us to begin the process of thinking about the source (if any) and size of competitive harm sooner than we do. There are, of course, limits to the streamlining we can do in very complex cases with large numbers of parties, but we hope to push these limits back whenever possible.

Second, modernisation has brought new challenges. The requirement to act consistently with Article 81/82 may have an effect on what we do in market inquiries, and how we do it. We have already begun the process of reviewing our procedures in the light of modernisation. One change that we have introduced is an 'emerging thinking' document. It is designed to bridge the gap between our issues letter and the provisional findings, identifying the main sets of concern, the theories of harm that might emerge and the key evidence on which these concerns/theories are based. The 'emerging thinking' document is not a 'statement of objections', but it has some purposes in common. It will be interesting to see how it evolves over time.

Third, we need to spend more time thinking about remedies. This is, for us, a new responsibility, and it turns out that there has been little systematic examination of the appropriateness and effectiveness of different types of remedies in different circumstances. With the power to impose remedies on parties (if necessary) comes the responsibility to act responsibly, and this, in turn, requires one to act with as full an appreciation of the consequences of one's actions as possible. We have begun to use our investigative and reflective capabilities on ourselves and what we do—after all, one might as well lead with one's strengths—and I have no doubt that as time goes on, our thinking about and our approach to remedies will evolve, and do so for the better. Watch this space.