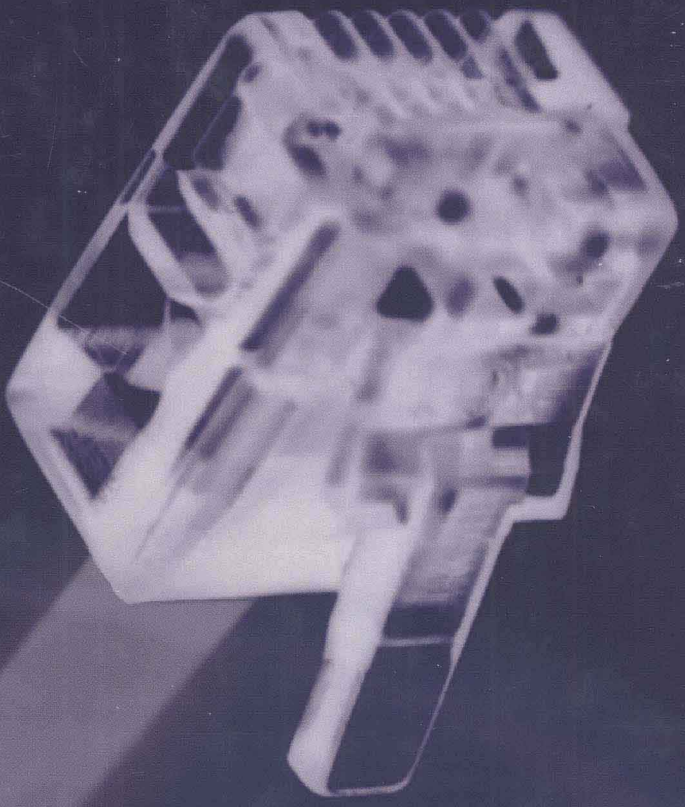

Competition, Regulation and the New Economy

Cosmo Graham and Fiona Smith

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Introduction

COSMO GRAHAM*

IN ADDITION TO being the principal medium for communication, education and entertainment, the new economy is now a leading provider of goods and services through electronic channels. It rides on the crest of new technological developments in computers, telecommunications, broadcasting and satellites, thereby creating new interactive mediums. Primarily, it is the result of entrepreneurial activity in the computer sector, but the deregulation and liberalisation of state owned enterprises in the telecommunications and broadcasting sectors have played a contributory role. Whilst the initial dotcom bubble has now burst, the existence of a new economy with novel methods of production, distribution and exchange is here to stay: there are now 300 million active computers in the world, with 350 million people using the World Wide Web (expected to grow to one billion in four years); the speed of microprocessors continuously increases, facilitating the use of Information Technology (IT).

The new economy is seen as central to future prosperity, but regulating it is complex because it moves at great speed and produces novel forms of co-operation and competition. As a result, there has been great debate about whether the existing forms and principles of competition law, in particular, are effective to address regulatory problems. This is not simply an issue for competition law, but also a general problem for schemes designed to control aspects of the new economy. Indeed, this was one of the impulses behind the passing of the Communications Act 2003. The current volume looks at aspects of both issues:[1] the first three chapters examine some difficult

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[1] This collection of essays originates in a seminar on this topic held in Leicester in July 2001 sponsored by the *Modern Law Review*. Chs 2, 4, 5, 6 and 8 began life as papers presented to

competition law issues raised by the new economy. The next three chapters consider a variety of regulatory issues, focusing on institutional design and the book ends with a discussion of the implications of the European Union (EU) law concept of public services on high technology industries.

This first chapter attempts to set the scene for the contributions that follow by discussing briefly what we regard as the new economy and its salient characteristics. The discussion then outlines some general issues for competition law raised by the new economy and concludes by putting these issues into the context of recent developments in United Kingdom and EU competition policy. Finally, the contributions to the book are summarised and put into that context.

1. THE NEW ECONOMY AND ITS CHARACTERISTICS[2]

What do we mean by the phrase the 'new economy'? On one level, it can be restricted to the use of computer software and hardware and its application through digitalisation to the communications industry, especially the use of the Internet to business transactions. But this focuses narrowly on the industries themselves and neglects wider regulatory problems. To be comprehensive therefore, when determining the scope of the 'new economy', it makes more sense to discuss the general characteristics that distinguish these industries from the 'old economy', which then allows a discussion of the challenges for the development of competition and regulatory policy.

It will become apparent that the majority of characteristics affect a wide range of industries beyond computers and communications embracing, for example, biotechnology and agriculture. Although the notion of the new economy sounds vague, there is substantial agreement amongst the commentators regarding its distinguishing features.[3]

One of the most obvious features of new economy industries is that they are characterised by rapid technical or technological change, which leads to the alteration of the markets under consideration either through the creation of new markets or the transformation of old ones. Computers are a good example of this: in the 1960s the industry focused on mainframe computing,

that seminar. We would like to thank the contributors to that occasion for their thoughts which have helped to shape the contributions to this volume.

[2] See also ch 2.

[3] General discussions can be found in D Teece and M Coleman, 'The Meaning of Monopoly: Antitrust Analysis in High-Technology Industries' (1998) *Antitrust Bulletin* 801; Office of Fair Trading, *Innovation and Competition Policy* (2002) Economic Discussion Paper 3—Part I; and D Evans and R Schmalensee, *Some Economic Aspects of Antitrust Analysis in Dynamically Competitive Industries* (2001) National Bureau of Economic Research Working Paper 8268.

whereas the growth of personal computing in the 1980s has moved the industry from one selling primarily to large organisations to one which sells directly to individual consumers, as well as of course still to large organisations. The mobile phone market in the UK is another example. The first two mobile licences were issued in 1985 and the next two were only issued in 1991. From those small beginnings, the market has grown to be a sizeable phenomenon both in terms of the services provided and the manufacture of mobile phones. The mobile phone industry is also a good example currently of technological change through the current development of third generation mobile phones.

The second characteristic that is usually emphasised is the importance of intellectual property to these developments. Technological changes are focused around intensive research and development with the intention of creating new intellectual property rights, in other words, creating a means of protecting the investment that the firm makes in the new development. There is a well-known potential for tension between intellectual property rights and competition policy and this is something that may become a particularly difficult issue in the high technology industries.

Third, the implications of network effects are emphasised in the literature. It is often the case in new economy industries that a network of some kind is involved. The most obvious example is telephones: here, the effect that is most commonly referred to is that the network becomes more valuable, as the number of members increases: this is the so-called 'network externalities'. This is obvious in relation to networks such as telephones, fax machines and picture messaging, but there may be a similar effect in other sectors that do not immediately rely on a network. For example, the more people who use compatible computer software, the more valuable it becomes because of the ability to swap files and interchange information easily. The popularity of a network may lead to what Shapiro and Varian call demand-side economies of scale,[4] that is, people value a product because it is popular. When combined with the more traditional supply-side economies of scale this creates what they refer to as 'positive feedback', which allows strong firms to get stronger and weak firms to get weaker, potentially leading to extreme results. To be more precise, one firm and its technology eventually dominate the market. An example here is 'Word' word processing software. These network effects lead to competition for markets, rather than competition within markets. The natural outcome is a market dominated by one firm, something traditional competition law looks at with some suspicion.

Finally, these industries tend to have high fixed, or sunk costs and low marginal costs. The costs of producing the first CD or software programme

[4] C Shapiro and H Varian, *Information Rules* (Harvard, Harvard Business School Press, 1999) 179.

are relatively high, while the costs of reproducing it are very low, even negligible. Furthermore, as Shapiro and Varian point out, there may not be any capacity constraints in reproducing certain goods.[5] There are capacity limits in a factory producing automobiles and concrete blocks, but the same does not apply to producing additional copies of information. This characteristic has particular implications for the pricing policies of new economy firms. In particular, a central pricing strategy for such firms will be price discrimination. Price discrimination is not a new phenomenon, but new technology makes it much easier for firms to obtain information about price preferences and buying patterns, as well as making it easier to create different versions of the product that they are selling.

A further implication of an industry with high fixed or sunk costs and low marginal costs is that it tends to be concentrated because of the high costs of entry. The picture that comes through is of an industry subject to dramatic changes, but dominated by a few firms, or one major player. It is possible that this firm, with a large market share, will engage in price discrimination, create complementary products, encourage customer loyalty and be highly profitable. On the face of it, this is the sort of behaviour of which the competition authorities have always been highly suspicious. It is argued, however, that this is to misunderstand the nature of what is happening in these industries.[6] In these circumstances, these high market shares are fragile and potentially temporary because the rapid pace of technological change means that markets can change radically quite quickly. Consequently, on this hypothesis, intervention by the competition authorities is not needed, as the market will provide the appropriate correction. The more appropriate question for competition authorities should be which is the best characterisation of a market in a particular industry; unfortunately, there is no simple answer. This can be illustrated by examining the problems posed for the application of competition policy methods in the context of high technology industries.

2. POTENTIAL PROBLEMS FOR COMPETITION POLICY

The starting point for all competition inquiries is the question of market definition. Once that is agreed upon, the crucial question is whether or

[5] *Ibid*, 21.

[6] See eg C Ahlborn, D Evans and J Padilla, 'Competition Policy in the New Economy: Is European Competition Law up to the Challenge?' [2001] 22 *European Competition Law Review* 156 and C Veljanovski, 'EC Antitrust in the New Economy: Is the European Commission's View of the Network Economy Right? [2001] 22 *European Competition Law Review*, 115.

not the firm or firms under investigation have market power or are dominant in the context of European Community (EC) competition law. There is a substantial amount of literature on how to define the relevant market and all the competition authorities have provided guidance on how they undertake this task.[7] Much of the criticism of the competition authorities' approach has emphasised the need to avoid a 'static' approach to market definition. In other words, to take into account not only how the market is at the moment, but also how it will develop in the future. The implication is that with a dynamic high technology industry, competition will be for the market and that a wide market definition is generally required.[8] In terms of the principles that the authorities apply in Europe and the United Kingdom, this criticism is overstated. The guidance recognises that market definition is a tool in the inquiry and that the issue is establishing whether market power exists. In doing this, the authorities recognise that they must look at supply-side substitutability and, although strictly not an issue of market definition, potential future constraints on the companies concerned. Indeed, the issue generally for competition authorities in merger cases is what will be the impact of the merger on competition in the future; therefore, almost by definition, they cannot adopt a static view of the market, but must instead try and predict future events. This is not an easy exercise and opinions will differ on whether, in any one case, the authorities have adopted the correct approach.

A more interesting point has been raised in the OFT's paper on competition policy and high technology industries. The authors argue that market power is usually defined as a firm having power over prices and hence output. They go on to argue that it is important to include exclusionary power within the context of market power because in dynamically competitive industries competition issues generally arise from exclusionary power rather than pricing power.[9] This is in the context of a general argument that the competition authorities should apply a 'first principles' approach to their analysis in particular cases. By this they mean that:

> it would focus the analysis from the beginning upon the alleged anti-competitive conduct. It would then use the definition and analysis of markets, market power (both pricing and exclusionary), and competitive constraints broadly

[7] European Commission, *Commission Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law*; Competition Commission, *Merger References: Competition Commission Guidelines* and *Market Investigation References: Competition Commission Guidelines* both in section 2; Office of Fair Trading, *Mergers: Substantive Assessment Guidance* (May 2003, OFT paper 516).

[8] A good example is Ahlborn, Evans and Padilla above n 6, 161–62.

[9] Above n 3, pt I para 4.11. Much of this is derived from work in the US, as acknowledged in the report.

> defined to determine whether the alleged anti-competitive behaviour did have anti-competitive effects and whether these effects caused significant consumer harm. ... It would ... allow for explicit analysis of whether a particular firm had the ability, power, or incentive to carry out the alleged anti-competitive act. ... Further, one could analyse explicitly what the effect would be upon innovation, short-term competition, long-term competition, price in the short- and long-run, and upon product diversity and quality.[10]

A. Predation

This has been one of the most controversial areas in competition policy for a long time and there are a number of new twists brought about by the development of high technology industries. Traditionally, it is perceived as a rule about pricing which prevents dominant firms from charging prices that are so low that they will drive out competitors. Substantial controversy exists over whether or not predation is an economically rational strategy and, furthermore, what the test for predation should be in the context of EC law. In particular, there has been a debate about whether or not the alleged predator must be able to recoup their losses once the other firm or firms have been driven from the market.

Given that high technology industries are characterised by high fixed costs and very low marginal costs, a number of problems for the analysis of predatory pricing are created, as the Office of Fair Trading (OFT) point out.[11] It may be possible for a firm to price above its variable costs, but this will still undercut a smaller competitor who may be forced to exit the market. Alternatively, with very low marginal costs, there are circumstances in which it would be sensible to price below variable costs, for example to build market share. Under current EC competition law there would be a presumption that such behaviour was predatory even though it may just be a sensible business practice, particularly in the context of 'winner take all' markets.[12]

Neither of these are actually new problems in relation to predatory pricing. The issue of whether or not pricing above average total costs can be predatory has recently been discussed in *Compagnie Maritime Belge*[13] where the European Court of Justice (ECJ) concluded that this was indeed possible. Wider discussions have also taken place over the reasons why firms might price below marginal costs.

[10] *Ibid* para 4.69.
[11] *Ibid* para 5.8.
[12] Shapiro and Varian above n 4, ch 2.
[13] Cases C–395/96 P and Case C–396/96 P *Compagnie Maritime Belge Transports v Commission* [2000] ECR I–1365 [2000] 4 CMLR 1076.

In addition, the OFT paper argues that the concept of predation should be extended beyond pricing to cases where:

> A firm either incurs costs or undertakes other actions which may be cost free or cost reducing, that it otherwise would not have taken had it not been for the anti-competitive benefits to the firm undertaking these actions.[14]

This would be an extension of the current concept of predation, but the idea is to catch certain practices such as product pre-announcements that, it is alleged, have been used in a way to stifle competition.

B. Tying and Bundling

This is another area of controversy where there are likely to be important repercussions for high technology industries. As Shapiro and Varian point out, any evidence of such behaviour is likely to be a red flag to antitrust authorities.[15] The OFT indicates that there are a number of different practices which need to be distinguished and that there can be perfectly good reasons for businesses undertaking such practices.[16] The report distinguishes between tying, which it defines as where there is a contractual link between products, and bundling, where a group of products are sold together. It further distinguishes between pure bundling, where only the bundle of products are sold, and mixed bundling, where the products may be sold as a bundle or separately, albeit more expensively. It goes on to argue that there are a number of plausible reasons, not related to anticompetitive practices that would encourage businesses to engage in tying and bundling. These range from concerns over the quality of products to being able to sell more products through this method.

The authors of the report do argue that there are certain situations where such practices may be aimed at market foreclosure. They claim that in a market for tied goods, that is Good A and Good B are sold together, the ability to reduce the sales volume of a competitor for Good B may reduce the competitor's profits to the point where they exit the market. This is also the case where entry is undertaken through the provision of two goods, rather than just the one. In that case, bundling and tying practices may again have detrimental effect on competition. The overall conclusion is that there needs to be a thorough analysis in each case as to why tying and bundling is being used and what the effects are.

[14] Above n 3, para 5.17.
[15] Shapiro and Varian above n 4, 309.
[16] The analysis in this section is drawn from *Innovation and Competition Policy* above n 3, paras 5.37–5.69.

C. Intellectual Property Rights

The OFT report discusses two broad issues in relation to intellectual property rights (IPRs): the conditions under which such rights are licensed and the issue of access to those rights. In relation to the first issue, it is clear that competition authorities must be alert to conditions in licences that restrict competition. Broadly speaking, these will be conditions that are not related to the protection of the right in question. For example, a condition limiting the geographic area in which a licensee may use his or her rights would not be a problem from the point of view of economic analysis. By contrast, a condition, which limited the licensee's abilities in other markets, would be problematic as in the case where a licence to write software for a particular platform prevented the software producers from writing for any other platforms.

The essential facilities doctrine is discussed in more detail in chapter three, in the context of recent case law from the EC and wider literature on the subject. As the OFT report puts it:

> the core of the issue is balancing short run gains in efficiency with long run incentives to invest and compete dynamically[17]

In order to determine this question, the report notes a number of further key questions. These include, is the market for the underlying facility dynamic or potentially dynamic? What is the size of the benefit? Has the dominant firm invested in the facility? What is the potential impact on future investment? Can access be priced appropriately and what are the costs of monitoring the access regime? Although these are difficult questions, they are all questions that have commonly been asked in the context of the so-called essential facilities cases.

D. Collective Conduct

In addition to the issues discussed above, further problems arise in relation to standard setting and joint ventures with the latter being discussed more fully in chapter four. In information and high technology industries the need for compatible standards between different manufacturers may be critical. Shapiro and Varian[18] make the point that it may be better for competitors to co-operate over standards, rather than fight a standards war as this may have the effect of increasing the market for the product. Sometimes standard setting is needed for the product to take off at all.

[17] *Innovation and Competition Policy* above n 3, para 5.101.
[18] Above n 4, 259.

When there is co-operation between parties, there must be a careful assessment of the arrangement by the competition authorities. It has been suggested that there are a number of critical questions. Do the firms together have market power? Is membership open or closed? Do they possess blocking patents or other IPRs? What ancillary restraints are imposed on members of this group?[19]

E. Mergers

The most important question for mergers is to characterise the type of competition: is it competition in the market or competition for the market?[20] The European Commission has been very concerned in the new economy cases that have come before it to ensure that the future development of markets is not restricted by the creation of bottlenecks over which the parties have control.

3. CONCLUSIONS ON COMPETITION POLICY

The debate about the application of competition policy to new economy industries will continue, particularly in the light of the European Commission's investigations into Microsoft and its practices. Its recent statements argue that Microsoft is leveraging its dominant position from the personal computer (PC) market into low-end servers and that Microsoft's tying of Windows Media Player to the Windows PC operating system weakens competition on its merits, stifles product innovation and ultimately reduces consumer choice.[21] What this very brief overview suggests is that the problems facing competition policy are not necessarily conceptual ones, but will arise from the generic difficulty of applying general principles to specific factual situations and, in particular, the need to take a view about the future development of markets. It is now useful to remind readers of developments in EU and UK competition law and policy, which will form the context within which such decisions are taken.

At EC level the two most striking developments are the increasing emphasis on economic analysis adopted by the European Commission (Commission) and demanded by the courts and the new procedural framework that will follow enlargement. The new procedural framework comes into place from May 2004 and gives more responsibility for enforcement of

[19] *Innovation and Competition Policy* above n 3, paras 6.22–28.
[20] *Ibid* para 7.37.
[21] See Commission Press Release IP 03/1150, 6 August 2003.

EC competition law to national authorities and courts. The hope is that it will free up resources in the Commission, so that it is able to concentrate more on serious European-wide cases of breach of competition law. This may help with the issue of economic analysis. The greater emphasis on this issue can be seen as a Commission response in part to some long-standing criticisms of the operation of the system under Article 81 EC, illustrated initially in the block exemption on vertical restraints. The need for better and more accurate analysis of the cases' facts before it is one of the themes in three recent merger cases before the Court of First Instance (CFI), where the Commission's decisions were annulled in each instance.[22] The decisions came at a time when the Merger Control Regulation was under review and prompted the Commission to undertake certain reforms in its internal procedures, notably the creation of a panel to have a second look at merger cases and the position of Chief Economist. On the substantive level, the Commission appealed the *Tetra Laval* case to the ECJ because it involves the proper approach to be taken to leveraging, which is also an issue in the *GE/Honeywell* case, currently also before the EC courts.

At the UK level, major changes have come about through the Enterprise Act 2002 as regards the control of mergers and market investigations. Broadly speaking, the role of politicians has been dramatically decreased and the final decisions in these areas have been given to the Competition Commission which will decide, in essence, on the basis of whether or not there has been, or will be, a substantial lessening of competition in the case in front of it. In legal terms, this represents a move away from the very broad range of criteria that could be taken into account under the public interest provisions of the Fair Trading Act 1973. In terms of the new economy, this should lead to a more focused investigation, with less chance of non-economic policy goals intruding, although there are special provisions for broadcasting and media mergers.

4. REGULATORY QUESTIONS

One of the issues surrounding the new economy is what alternatives are there if a pure competition approach is deemed inadequate? One of the usual policy reactions to the failure of competitive markets to meet public interest goals is to set up a regulatory system for the industry concerned. As regards the new economy industries with the characteristics identified above, this is a hazardous undertaking because most experience of regulation has been with industries that have not been characterised by such

[22] Case T-342/99 *Airtours v Commission* [2002] ECR II-2585, Case T-5/02 *Tetra Laval v Commission* [2002] ECR II-4381 (under appeal to the ECJ), Case T-310/01 *Schneider Electric v Commission* [2002] ECR II-4071.