

Antitrust in the New Economy

Is the EC Commission wrecking the network economy?

Recent decisions and statements by the EC Commission have suggested that competition rules are being more stringently applied to the new economy. As EC Competition Commissioner Mario Monti states: "...even if the pace of high technology sectors means that market failures last only for a short time – and I have serious doubts about this – this does not mean that we should be less concerned." Surprisingly this has been particularly the case for mergers between network operators in the Internet and mobile sectors. Given the rapid, innovative, immature and dynamic nature of these sectors, this has attracted criticism from the business press. *The Economist*, under the heading "antitrust run amok?" has questioned whether this more stringent application of competition law to new economy mergers is justified.

The EC Commission's Position

At the risk of exaggeration the "new" antitrust can be parodied as follows. The communications sector harbours pervasive and ubiquitous *network effects*. These arise when the value of a network to its users increases with the aggregate number of users connected to it. These *demand side economies of scale* generate *positive feedback effects* ("success breeds success") as more join a network, ultimately *tipping* the market (*snowballing*) so that one network dominates. Consumers become *locked in* to the network. As a result even networks offering superior services cannot dislodge the larger network. Indeed, there is a *path dependence* which can see early developers of technology (*first mover advantages*) becoming dominant by capturing new growth so that the economy may adopt an inefficient solution. This process is assumed to be kick-started by a network that becomes larger because of the merger in the same product market (*WorldCom/MCI*) or which gains a larger geographic footprint than its rivals (*Vodafone AirTouch/Mannesmann*). In short, the structural features of the new economy impel it to monopoly and inefficiency. This, in turn, justifies vigorous antitrust enforcement and sectoral regulation.

The Validity of snowballing

A careful reading of the economic literature on network effects shows it considerably more circumspect than the Commission in attributing snowballing to telecommunications networks.

First, network effects *per se* do not lead to anti-competitive outcomes or imply one supplier. In the real

world they are compatible with many networks competing and which seek to achieve universal connectivity through interconnection and roaming arrangements. Moreover, their internalisation by companies generates consumer benefits so that larger networks are efficient because they generate greater consumer value.

Second, snowballing and tipping only occur under very restrictive assumptions which require some sort of "bottleneck" in the industry. It is, therefore, no surprise that the literature in the main has evolved from discussions of proprietary technical standards in software and consumer durable industries, and not physical telecommunications networks. Specifically, a necessary condition for tipping is that competition takes place between *incompatible* software products. In this setting, the consumer makes an all-or-nothing choice which enables the network operator to internalise the network benefits i.e. effectively "own" the customer. The application of the concept to interconnected physical networks (as in *WorldCom/MCI* and *MCI WorldCom/Sprint*) is highly questionable. When physical telecommunications networks are compatible and interconnected, the consumer of any one network immediately has access to the users on other networks, so that network effects exist for the whole sector, and do not give advantage to any one individual network operator.

Third, and critically, the claim that network effects necessarily lead to monopoly provision requires one to assume that the (average marginal) external benefit function rises more than proportionately with the size of the installed subscriber base. That is, the bigger the network, the greater the marginal gains from internalising the network benefit. It is only in this way that complete monopolisation of the market would be the economic outcome. Since no one has measured the benefit function, and there is no reason to assume that it has a positive and increasing gradient until the whole market is saturated, this is sheer speculation.

Finally, and related to the last point, there is virtually no evidence of the existence and significance of network effects in telecommunications. They are simply assumed to exist. However, the Commission's claim that new subscriber growth will be captured by larger networks is easily refuted in the mobile sector where smaller later

starting networks have gained significant market shares across Europe. Indeed, while the business strategy of many dotcoms have been driven by a belief in network effects, these have yet to materialise and this has been described as “*hallucinatory thinking*” leading to disastrous financial consequences.

Antitrust implications

Were the Commission to seriously believe that network effects are pervasive, it would find itself in a world of paradoxes and need to fundamentally reform competition rules in the communications sector. It would imply, for example, that the basic theorems of economics – that competition is efficient, and leads to price equal marginal costs would no longer hold. Also that network growth driven by efforts to internalise network effects is good because it leads to the greatest consumer value. Snowballing then becomes another term for natural monopoly. It would be stuck with the unsavoury implication that natural monopoly is the efficient solution, and that attempts to maintain a fragmented industry imposes considerable costs on consumers, innovation and productivity (which the Commission would in any case ignore under its merger clearance rules – see *Casenote No 13*).

Other difficulties follow. The usual evidence of monopolisation is when a firm offers less output at a higher price. Yet network industries are characterised by output expansion, and falling prices driven by technical innovation and scale effects. Hardly harmful to consumers! At the other extreme network effects compound the difficulties of identifying predatory practices because network effects support so-called “penetration pricing” through discounts and hardware subsidies in order to build up the installed subscriber base. This used be called the “chicken and egg” problem of how to attract subscribers to new products, which in turn would lower unit costs/prices and attract further subscribers. While the resultant output expansion and lower prices would normally be taken as evidence of absence of monopoly abuse, the Commission is likely to see low initial prices (below attributable unit costs) as evidence of “predation” and of an intention to exploit the consumer with higher prices at a later date (but see below).

What’s wrong with serial monopoly?

Respected commentators have also argued that it is wrong to focus on market structure (network size) in evaluating the new economy. These are emerging industries in a fluid state buffeted by technical change and the need to make massive and ongoing investment in software and infrastructure. Even where one or a few firms appear dominant, they will be rapidly displaced by technical innovation and superior marketing by new entrants which may, in turn, appear “dominant”. That is, parts of the new economy may be subject to serial monopolisation which does not have the harmful effects attributed to static monopoly. Many of those companies which have been focus of the Commission’s recent angst – AOL, WorldCom, MCI, BSKyB, Vodafone – either did not exist or were **the** competition a decade ago! Other communications companies which were dominant less than a decade ago are now rarely heard of in antitrust circles.

Further, there is no necessary reason to assume that network effects only work in the one direction? They may operate symmetrically so that excessive price hikes or failure to cater to consumer demand cause the “network” to unravel quickly in a downward spiral. The most striking example in the antitrust field is *IBM v. Commission* in the early 80s. Five years after the case, the alleged dominance of IBM sunk under a welter of new products, innovations, PCs, desktops, laptops etc..

The need for a debate

The introduction of network effects in EC competition law has gone unchallenged. The Commission’s claim that they are pervasive and call for more stringent application of competition law is not based on solid theoretical or empirical arguments. There is, therefore, an urgent need for a debate about the way antitrust should be enforced in the new economy.

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Dr. Cento Veljanovski on + (44) (0) 20 7376 4418 or cento@casecon.com