Europe Economics

# Competition Considerations Inspired by the Unsuccessful O2/Three Merger

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# Competition Considerations Inspired by the Unsuccessful O2/Three Merger

On the 11th of May the European Commission announced its decision regarding a proposed acquisition of Telefónica's O2 by CK Hutchison to merge it with another of CK Hutchison's holdings, namely Three. The Commission has decided to reject the proposal, despite previous decisions in Austria and Germany where deals to reduce the number of operators from four to three went ahead. The Commission's decision was consistent with the view presented by Ofcom.

We take this decision as a pretext to discuss some of the crucial aspects of competition in any market.

## Market background

The UK mobile operators market has four main players—EE (which is part of BT Group), O2, Vodafone, and Three. These four players are not only the main mobile operators but also firms running and maintaining the infrastructure which enables mobile telecommunication services (i.e. masts, cables, antennae etc.). At the moment there are two infrastructure network sharing agreements—one between Three and EE, called Mobile Broadband Network Limited (MBNL), and the other between O2 and Vodafone, called Cornerstone.[1]

Apart from being used for their own businesses, the access to the networks is also being sold to other mobile operators (sometimes referred to as "virtual" operators as they do not own the infrastructure necessary to providing mobile telecommunication services).

## Why should we care for competition?

Taking a step back let us first discuss why competition is a concern. In economic theory competition serves a crucial role in determining the allocation of resources. The idea is that resources are pulled in by the most efficient producers, and that products are distributed to the consumers who value them the most.

A widely accepted approach to defining competition refers to the set of conditions a market must satisfy in order to be deemed competitive. More specifically, a perfectly competitive market has a large number of relatively small firms which earn zero profits on their activity (i.e. the prices are set to cover exactly the costs of production). Perfect competition also requires all market participants to have equal access to information, which is the basis for making economic decisions. The key proposition of economic theory is that perfect competition ensures that the allocation of products and resources is efficient and Pareto optimal (i.e. the allocation cannot be amended without making someone worse off).

However, this meaning of competition can be viewed as somewhat paradoxical as in that perfect *state* there is actually no active competition. With zero profits firms cannot invest in new solutions to become more efficient or develop new products. In this world firms have already reached the state where all efficiencies have been exploited and there is no way to drive their competitors out of the market (or be driven out of the market, for that matter). As such, there is no *need* for improvement either—the market has settled in an equilibrium where the number of firms, price and quantity produced are constant. An obvious advantage of this definition is that it gives a clear set of conditions which are desirable to ensure good outcomes. For that reason, regulators often strive to foster competition by creating an environment as closely satisfying the

[1] Cornerstone covers only masts and cables but not antenna.

above conditions as possible. Perfect competition, while perhaps not attainable, is the ultimate goal of such approach.

Alternatively, competition could be defined as a never-ending *process* of rivalry creating higher efficiency, better quality, and lower prices. In this approach there is no equilibrium or ultimate state of the market because there is always a potential to evolve. As in the previous definition, the incentive to compete comes from the hope for dominance and higher profits, however here profits are not necessarily a sign of a distortion but an indication of market superiority compared to actual and potential (but feasible) competitors. As such any behaviour which aims at increasing profits or market power is a clear manifestation of the competitive force. At the same time, such behaviour is stimulating further competition because the higher the profit the more attractive it becomes for other firms to enter the market. This understanding of competition does not assume that a large number of firms active in the market is required for the market to be competitive. What drives competition is uncertainty—the risk of losing the market to some other, potentially new, undertaking motivates the market players to constantly improve. If there is no risk or uncertainty regarding the future, there is no need to compete.

Even though these two definitions have different practical implications, in both competition is a motor for increasing quality and lowering prices. As such it is crucial for economic efficiency, fostering innovation, and thus consumers.

## Why the issue of competition is usually more complex than that?

For the competition forces to *fully* prevail certain conditions have to be satisfied. This is particularly true under the first definition of competition which is strongly related to the structure of the market. However, under the second meaning of competition, there are also factors which might inhibit the competitive process.

In theory three players (or even two) could well suffice to keep the competition strong. Assuming that all three firms offer a homogenous product, each of them has an incentive to marginally reduce price and win the entire market. Since all of them are subject to similar incentives, competing for consumers will drive the price down, close to the cost of providing the goods. Such a mechanism could be found in the Bertrand model of competition[2] and could be expected in perfectly competitive markets (as per the first definition of competition in the section above). However, when some of the classical assumption in the competition theory are not satisfied, such market structure could be vulnerable to dominance and abuse. Moreover, under the second definition the market might evolve in a different or less straightforward way, e.g. the incumbents might differentiate their products so they gain more power in separate markets or reinforce their oligopolistic position until a new, more efficient technology takes over.

Regardless of the definition we choose, the potential for new firms to enter the market is an important condition for a market to be competitive as it has a disciplining effect on incumbents. This however, can be inhibited by several factors. Some of these factors are natural scarcity of resources, economies of scale[3], and other incumbency advantages.

Each market which relies on scarce resources is, to some extent, "broken". There is a natural upper limit to how much of a particular good can be produced, which makes it, in a sense, more valuable. Moreover, having control over a scarce resource is closely related to having the control over the supply of the final good. When the control over the scarce resource is in hand of only a few players, the pressure from new entrants is very weak, if any. This further reinforces the fact that scarcity pushes prices up. On the other hand, scarcity

2 In this model firms where firms compete on price rather than quantity. This seems an adequate assumption in this context as the maximum "quantity" provided is determined by the spectrum available, which is defined in the terms of the Ofcom license. This is something firms cannot freely adjust.

3 Economies of scale are used here in a broad sense as capturing any type of scale effects, including economies of scope and economies of density.

might inspire developing new solutions which would serve the same purpose but not rely on the scarce resource. This process, however, might take a lot of time and investments before a successful solution is obtained.

Another factor inhibiting new entrants could be related to the nature of the product supplied. The production or distribution process that is characterised by economies of scale, naturally gives incumbents an advantage over potential new players. Economies of scale allow "large" suppliers to exploit efficiencies which cannot be exploited by smaller firms.[4] While on the one hand, efficiency in production and distribution could translate into lower prices for consumers, on the other economies of scale imply that the competition is likely to be restricted to large players, as new entrants will be able to effectively compete with the incumbents only if they undertake significant investments.

Clearly, the most complex situations arise on the intersection of several factors inhibiting competition. These cases are also the most challenging for competition authorities.

## Competition in practice

The above discussion, even though very brief, shows that the practice of competition studies and assessments is usually much more complex than it might seem at first. Any market intervention aiming to improve the market's efficiency will be effectively bound by the trade-off between incentives and protection. One of the objectives of competition authorities is to protect consumers from unfair practices and consequences of market concentration. This can be achieved by licensing, imposing price caps, creating standards firms have to incorporate or comply with etc. If done adequately, all these solutions might lead to better consumer outcomes, however, in practice determining the right type and degree of limitations in the ever-evolving environment is challenging. Rules which are too lax might not be effective in protecting consumers from the abuse of market position. On the other hand, rules which are too stringent leave less space for actual competition (i.e. the rivalry leading to increasing efficiency). In particular, the less profitable it is to operate in the market, the less incentives new entrants have to engage in the market.

In order to mitigate the complexity of the task, competition authorities usually have a well-defined process which enables them to make assessments in mergers and acquisitions or other competition cases. Basically, the procedure is likely to involve, first, defining the relevant market, and then assessing the competitiveness of this market.

### Market definition

Market definition simply provides the relevant scope for the analysis, i.e. it specifies how wide the competition analysis should be. There are two aspects of a market definition—product scope and geographical scope. The former defines the products which are perceived as substitutes to the product under consideration. The latter defines the maximum geographical area where the competition can actually occur.

In some cases the final market definition appears obvious, however, it is not always consistent with the common or intuitive point of view. Therefore, a thorough and reliable procedure is required.

While the process of defining the relevant market might often seem quite technical, it is crucial to any competition study as depending on the definition of the market, the competition assessment could yield very different results. In particular, if the market definition is too wide we would be less likely to find evidence for market dominance. On the other hand, if it is too narrow, the evidence for market dominance might be unjustified and, thus, any measures restricting the incumbents would actually harm competition rather than reinforce it. A practical implication of these consideration is that the evidence for market dominance is

4 Economies of scale arise when the average cost of production declines as the volume produced increases.

stronger if dominance can be proved in a wider market. Alternatively, the lack of evidence for market dominance in a narrower market would strongly suggest the absence of a dominant position of the incumbent.

Both product and geographic market definitions should account for the supply and demand sides of the market, i.e. determine the extent to which consumers perceive different products / geographical areas as substitutes as well as the extent to which suppliers are able to switch between supplying different products / supply the product from a different geographical area. This means that, for example, even if consumers do not perceive a product offered in another country as a substitute to the equivalent product available nationally, the relevant geographic market might be wider than the national one if the suppliers from abroad can easily enter the national market.

### Competition assessment

With the market definition in place, we can move to the main task, i.e. assessing whether there are any competition concerns. There are a number of measures and concepts which can be analysed in this context. Again, the complexity of the task at hand means that usually a combination of measures is applied as no one indicator will provide sufficient evidence. Let us discuss some of the concepts often referred to in competition assessments.

- Market concentration—The simplest measure of market concentration are market shares, which are usually calculated as the distribution of revenues, volume or value of supplied product among suppliers in the market. The European Commission's dominance assessment procedures indicate that market shares of less than 40 per cent are seen as unlikely to be dominant.[5] However, this does not mean that market shares above 40 per cent automatically indicate lack of competition. Alternatively, measures such as HHI index could be used.[6]
- Barriers to entry and expansion—These include all factors that may prevent existing firms from expanding or new firms from entering the market. In each competition case the factors are likely to be different, but the main types of barriers are:
    - absolute advantages for incumbents, which can include legal or technical advantages (e.g. concessions to be a public transport provider or intellectual property rights to a technical solution),
    - intrinsic or structural advantages (e.g. vertical integration or operating in an industry with large sunk costs),
    - economies of scale,
    - strategic advantages (e.g. reputation and established position of the incumbent).[7]
- Countervailing buyer power—It arises in situations where buyers can create competition between suppliers. Even in a highly concentrated market suppliers may compete between each other because the buyers can exert competitive pressure on them. Countervailing buyer power is more likely to be present when incumbents do not have absolute advantages over other firms, so new entrants could potentially be brought to the market if the incumbents do not provide satisfactory quality of good or services. It also requires some degree of consolidation or coordination among buyers to effectively exert pressure on suppliers.

Finally, an important distinction should be drawn between dominance and abuse. Finding that a company has a dominant position in the market does not necessarily mean that the position is being abused. It indicates, however, that the market structure is more vulnerable to anti-competitive behaviour, which in turn could lead to reduced efficiency and worse consumer outcomes.

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5 European Commission, *Antitrust procedures in abuse of dominance*, http://ec.europa.eu/competition/antitrust/procedures_102_en.html, accessed on 26/05/2016.

6 HHi stands for Herfindahl–Hirschman Index.

7 Office of Fair Trading (2010), "Review of barriers to entry, expansion and exit in retail banking", OFT1282.

## Rationale for the Commission's decision

Given the short discussion of the competition theory and practice above, let us look at the reasons supporting the decision taken by the Commission regarding the proposed O2/Three merger.

Regarding the relevant market, the Commission seemed to have decided that the relevant market consists of nationally operating providers of mobile telecommunication services. In that context, the combined market share of O2 and Three would be over 40 per cent. As noted above, this does not immediately imply market dominance, but it is an indication that there is scope for anti-competitive practices to arise. With more restricted choice of mobile operators, consumers' bargaining power would diminish which could weaken the competitive pressure on the market players. The European Commission argued that such a consolidation would likely lead to higher prices and reduced quality.

Due to the reliance on infrastructure, the market for mobile operators is not excessively open to new entrants. In order to provide mobile telecommunication services operators need access to the relevant infrastructure. Assuming that, at least in the short and medium term, there will be no new infrastructure, jointly the current four main players have full control over it. When the direct access is limited to a small number of players (as it is in this case), new entrants can only be of a virtual kind (i.e. access the infrastructure through one of the infrastructure owners). If the proposed merger went ahead, O2/Three would have been part of both network agreements (MBNL and Cornerstone). As such, the consolidation of O2 and Three might not only lead to higher concentration among the downstream suppliers (mobile operators) but also upstream suppliers (infrastructure providers). This might give the merged entity an advantage over the remaining two operators, as well as reduce the ability of virtual operators to enter the market. Furthermore, reduced competition between the two network agreements might diminish their incentives to modernise and upgrade the mobile infrastructure.

In short, the Commission argued that the market for mobile operators would be relatively concentrated, and that due to structural advantages the merged O2/Three entity would have a significant advantage over the remaining operators and market power to inhibit further competition between the two networks agreements and from virtual operators.

Moreover, we could note that in markets which provide goods or services directly to a large number of dispersed consumers, there is unlikely to be scope for countervailing buyer power.

## Upcoming developments

While Hutchison's proposal was blocked by the Commission, Telefónica might still decide to sell O2. It remains to be seen which firm would be the highest-bidder and whether such a deal would provoke any competition concerns. Moreover, Three announced that it might consider a legal challenge of the Commission's decision.