



# Summary of oligopolies roundtable

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# About this document

Oligopolies, markets with a small number of large firms, are found across a broad range of sectors. While these markets can produce good outcomes for consumers, this is not always the case. Ofcom, and others, have been considering how regulators should respond to these markets, if at all.

On 8 February 2017, Ofcom hosted a roundtable to discuss this topic. It was attended by 28 participants from a range of national and European regulators, industry stakeholders, academics and consultants. The discussion was held under Chatham House rules. This note sets out the background to this discussion and summarises the key points discussed. A final section sets out the terminology used for the purposes of the discussion.

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## Section 1

# Background

In the communications sector, many markets have been evolving towards oligopolistic structures in recent years.

Mobile telecoms markets across the EU have traditionally had a number of competing players, in part caused by the design of spectrum auctions. The extent of competition in these markets has usually been considered to be effective and economic regulation has been limited. However, several 5-to-4 and 4-to-3 mergers within recent years has seen market concentration increase in a number of countries.

Fixed telecoms markets across the EU have historically been characterised by large national incumbents. As such, there has generally been a risk of consumer detriment, and regulators have imposed regulations to promote competition and protect consumers. In recent times a number of other players are entering or expanding to challenge the incumbent in these markets.

These two separate processes of consolidation and emerging infrastructure competition are both contributing to a trend towards oligopolistic markets in telecoms. It is less clear what types of outcome (in terms of prices, quality and innovation) to expect from these markets than under many of the historic market structures. There is no general presumption in economics about the functioning of oligopolistic markets and the desirability of the outcomes they might provide for consumers.

It is with this in mind that Ofcom convened a roundtable to discuss the functioning of these markets, in both telecoms and other sectors, and for us to consider the appropriate regulatory response, if any, to them.

## Section 2

# Themes from the discussion

## The economic problem

There was general acceptance among the participants that, under some circumstances, oligopolies may not provide good outcomes for consumers, either through unilateral market power, collusion or lack of consumer engagement.

Regarding unilateral effects, it was noted that it is a fairly general proposition in economics that there was an inverse relation between price and numbers of firms. Many economic models show this, for example in the Cournot model. This is what led, in part, to the change in the European merger regime. In 2004 the regime was altered such that the test for whether a merger should be prohibited was whether it would lead to a Significant Impediment to Effective Competition. This replaced the previous test which asked if a dominant position would be created by the merger. This implies an acknowledgment that competition may be ineffective in markets without a single dominant firm, i.e. nothing rules out the possibility that more than one firm has some form of market power within a given market.

Some participants pointed out that one option in these situations is to define a narrow market - each firm can individually raise price, which technically means it is in a single market (and this approach was taken in the Dutch case discussed below). This may allow single firm dominance to be found. However, it puts a lot of emphasis and pressure on the market definition exercise.

Some participants suggested a distinction between “wilful” and “non-wilful” market power. Where market power is not-wilful, there is no anti-competitive object but an anti-competitive effect. It was suggested that these two categories should be treated differently, as it may not be appropriate to take action against firms for acting in their own best interests.

It was suggested that there was no real difference between tight oligopolies and tacit collusion – both were wilful. A quote from Chamberlin was referenced:

“If each (firm) seeks his maximum profit rationally and intelligently, he will realise that when there are only 2 sellers, his own move has a considerable effect upon his competitors, and that it makes it idle to suppose that they will accept without retaliation the losses he forces upon them. Since the result of a cut by any one is inevitably to decrease his own profit, no one will cut, and although the sellers are entirely independent, the equilibrium result is the same as though there were a monopolistic agreement between them.”

Chamberlin, *The Theory of Monopolistic Competition*, 1933

Others felt that there was a clear difference between tacit collusion and tight oligopolies – tacit collusion required firms to act in a way that was not in their short term best interest, and required the ability to choose a focal point, monitor behaviour and choose a punishment mechanism.

It was noted that it could be hard to construct empirical evidence for tacit collusion, as it is a difficult and abstract concept, which cannot be observed – it was later noted that in one of the (non-telecoms) UK competition cases where co-ordination was found, a key piece of

evidence was email exchanges indicating the parties' knowledge of and responses to apparent departures from the focal point. In contrast, a diagnosis of a tight oligopoly does not require a proof of the presence of a collusive outcome, and should be easier to identify.

Some participants suggested there is distinction between market leadership and market power – firms want the former, but are hesitant about the latter, as they fear it will lead to regulation and therefore restrictions on their activities. This was however disputed by another participant who expressed that firms do in fact desire to have market power.

## **The example of Dutch telecoms**

In the Netherlands, there is a duopoly between the cable provider and the copper/fibre provider. Both of these firms operate nationally and have around 40-45% market share.

In reviewing the telecoms market, ACM (the Dutch competition authority and telecoms regulator) put forward a broad retail market (cable and copper/fibre). It then found that absent regulation the retail market would be at risk of higher prices and consumer harm, due to tacit co-ordination (i.e. a finding of joint dominance). This finding justified analysis of the wholesale market, where ACM examined direct and indirect substitution. In terms of direct substitution, it found that there is no economic and technical alternative to LLU on cable networks. In terms of indirect substitution, it found that the dilution effect (when wholesale price increases are passed on to retail prices) limited indirect substitution. Consequently, ACM put forward a narrow wholesale market definition (copper/fibre only) and found the copper/fibre operator had SMP.

The rationale for the different scope of the market definitions stemmed from the dilution effect when wholesale prices are passed on to retail prices.

The European Commission responded with serious doubts to their theory of joint dominance at the retail level. It was also concerned by the difference in the market definition at the retail and wholesale level. In response, ACM revised their decision, reducing the emphasis on tacit collusion at the retail level, and explained how even a broader market definition at the wholesale level (with cable included) would lead to a finding that the copper/fibre operator had SMP.

## **Identification of tight oligopoly markets**

There was a discussion about the difficulties in identifying tight oligopoly markets. Several indicators were suggested such as market shares, differentiation, number of complaints, lack of innovation and prices divorced from costs. A lack of switching despite high complaint levels could also be particularly telling. Equally innovation was thought to be a very important indicator.

Some participants commented on the difficulty of interpreting such indicators. International benchmarking was mentioned as a way of identifying uncompetitive markets. However, there were concerns that the structure of telecoms markets differed across countries in a way that made such benchmarking hard. Another participant suggested that retail prices might not reflect geographic costs because of the desire for uniform pricing. A further participant suggested that there was in any case undue focus on prices, as these are easy to measure. In fact, there was a lot of merit in competition on other factors, including technological innovation which is important in telecoms. One participant queried whether tracking innovation would actually help to tell if there was a tight oligopoly within a domestic area, since many firms are large international companies and innovated at that level (whereas prices could be national). It was also not clear whether there was “enough” innovation or not, and whether innovation was in tension with competition, or bred by competition.

Product differentiation was seen as a particularly difficult feature to analyse. On the one hand, differentiation can give rise to market power. On the other hand, differentiation can be an indicator of firms seeking to distinguish themselves to gain customers in a competitive market and a reflection of variation in customer preferences. It was suggested that we need to distinguish between positive product differentiation and artificial product differentiation designed to limit competition. Another participant suggested that, in telecoms, differentiation had been stifled by regulators pursuing symmetry across operators. For example, policies that reduce differentials in the amount of spectrum different operators could own, standardisation by the GSMA and interoperability requirements had meant that the main scope for differentiation was on who uses a new innovation first.

It was suggested that, in telecoms, lack of wholesale access was a key indicator of an uncompetitive market, and that one of the key aims of telecoms regulation had been to enable access. The notion of “tight oligopolies” at the wholesale level was questioned, and suggested that it was better suited for retail markets. Others felt that it was possible to have a competitive market without access, because competition between vertically integrated firms was sufficient (in which case perhaps there is no point in even considering an artificial wholesale layer). It was also possible to have concerns about wholesale markets with access if the price of that access was too high.

## **Industries with oligopoly problems**

It was suggested that many regulators tended to face similar issues, where consumers are disengaged in markets but continuing to make essential and on-going purchases. These markets are typically characterised by a relatively low income elasticity of demand. One consequence of this is that spending in these markets tends to be regressive and therefore attracts a lot of political attention. Further, retail competition tends to lead to price dispersion, which could complicate matters. As such, entry may be difficult as entrants can only attract the less profitable engaged consumers, rather than the more profitable less engaged customers.

A question was raised about whether there is anything special about telecoms relative to other markets. It was suggested that it was useful to segregate between demand side issues and supply side issues. While telecoms did suffer from some of the demand side issues outlined above, it was also more prone to supply-side issues, and had an ex-ante regime to deal with this. This meant that intervening to address tight oligopolies was different to a finding of abuse of under competition law, as the former was based on a presumption that telecoms markets tended not to be efficient, while the latter suggested a breach of the law.

It was suggested that telecoms regulation had pursued strategies to promote infrastructure competition, which is what had helped create oligopolies – these included unbundling, a push to new fibre entrants, added to cable and retail bundling (encouraging cross-market combinations). It was suggested that the European Commission is now trying to shift from transactions based on price regulation to ones based on commercial deals. Regulatory forbearance proposals/rules of thumb were intended to help the transition from price regulation to commercial deals, but it is unclear that this will work.

Within telecoms, it was suggested that the mobile and fixed markets are very different. There is lots of innovation in mobile markets (driven by competition) while in fixed markets there is less differentiation, and lower levels of competition. One participant suggested that fixed telecoms firms feared that greater differentiation might lead to segmentation, increasing regulatory concerns around oligopolies.

It was suggested that tacit collusion on price is easier at the wholesale level. There is scope for tacit collusion to become even more common in future given growth of algorithms

allowing coordination and punishment in real-time. In telecoms, since the fixed and mobile markets are converging, there is scope for there to be punishment strategies around denial of access to fixed networks for mobile providers. The structure of the mobile market would impact on opportunities for retaliation, e.g. on whether an MNO gives other MNOs access to the fixed network, particularly if there are a greater number of mobile providers than fixed. Others felt that there is enough multi-market contact that allows firms to negotiate and retaliate in lots of ways.

While tacit collusion may be easier to engage in at the wholesale level it would also be easier to regulate.

At a general level, it was observed that entry is what causes changes in a market. It is possible that entry conditions change over time. For example, in mobile markets the economics of density may lead towards future mobile markets looking more like a natural monopoly than they do now. Others felt it moved the other way. For example, a move from 4G to 5G would require twice as many base stations which would reduce incumbency advantages as all MNOs will need to invest.

## **Should new oligopoly regulation be introduced?**

Some participants said that any consideration of changes to regulation needs to start from an awareness that we have the current rules in place and it's necessary to demonstrate that there is a gap in the rules before looking to change them. For example, in the UK the market investigation framework exists already (although some suggested this cannot be effectively used for telecoms).

Many also felt that, given the difficulties in regulating oligopolies, it was best to intervene to prevent problematic market structures from developing through merger control, licensing of spectrum, USO and switching regulation. While authorities may in hindsight make some mistakes on these policies, that is different to them not being fit for purpose – we need to trust the existing regime.

Introducing new regulation for “non-wilful” situations, which would be hard to escape was seen by some as problematic. Firms couldn't behave differently to avoid regulation – unlike mergers – it was like putting them in a cage. There was also concern that the new tools would be difficult to use. This created bad incentive properties. It was better to try to get firm to solve their problems themselves.

Some participants said that regulation should be conducted in the light of history - the regulatory response is a function of the starting point and direction of travel – i.e. whether a market is moving from monopoly to more players (in which case care should be taken not to disincentivise innovation and investment) or from more competition to less. In general, where a tight oligopoly emerges from a situation which was formerly a single firm dominance situation there should be recognition of this, with less regulation rather than more regulation.

This was felt to be a particular problem at the wholesale level in telecoms which exhibits significant fixed costs, and where there is greater scope to deter investment (which is to the long term benefit of consumers) if there is regulatory error.

Others felt that the merger regime might be overly limited, because Competition Authorities are reluctant to pursue co-ordinated effects (and it was noted that more guidance might help with this). Moreover, with respect to tight oligopolies, there was a clear misalignment of the economics and the law – the only circumstances in which there was no gap was if market definition was “tortured” to come up with narrow markets; and this does not seem ideal. Others felt that market definition was “what kept regulators honest” and that loosening the

conditions on when regulators could take action gave them too much freedom. There was a balance between regulatory failure and market failure. Moreover, if there was regulatory freedom, a strong appeals regime was needed.

Some said that there were ways of dealing with concerns about regulation deterring innovation. One participant pointed to the patent system as an example of a framework for rewarding innovation. In telecoms, there is long term investment which needs regulatory certainty at the outset. A threat of future regulation could always chill investment. However, predictability and economic logic around regulation was seen to be the most important factor in terms of influencing investment. Regulation does not necessarily have to deter investment (there are examples of investment occurring in markets that are currently regulated). Firms simply need to have confidence and trust in the regulator and the regulatory regime.

Others suggested that the lack of oligopoly regulation could be damaging to competition, as there were risks to competition in deregulating too early. Relaxing regulation without evidence that upstream competition was sufficient could be damaging to downstream firms. If these firms had to leave the market in consequence, they were very unlikely to return.

Some suggested that the difficulties in using the tools were overstated, and the mere existence of tools could prevent bad behaviour.

There was also a suggestion that although Competition Law is designed and well suited for standard markets we may need to assess markets with a public nature differently.

## **What tools might be appropriate?**

It was agreed that should a market be found to merit an intervention then the remedy has to fit the concern. Where the concern is demand side, behavioural remedies are appropriate (with monitoring). These are easier to test than structural remedies. However, it was less clear to participants what to do if behavioural remedies were found not to work. Are collective switching arrangements an option?

One approach to dealing with concerns about unilateral market power in a duopoly with roughly equal market shares could be to investigate whether both firms have substantial unilateral market power. One may think of this as "double single firm dominance". In telecoms, such an approach potentially allows for imposing access obligations on two firms (competing in the same market). This would help to avoid the awkwardness of designating only one among two very similar firms as having SMP. Such symmetric obligations seem to be less prone to distortions of the competitive playing field.

Others felt it was first necessary to specify the consumer outcomes that were desirable, and then create the tools to get there. This was disputed by some who felt that it was impossible to specify exactly which outcomes were desirable and the only outcome we should be aiming for is the process of competition.

Some participants said that if any new tools were introduced there would need to be clarity on what the required standard of proof was. There would also need to be very clear guidelines, possibly borrowed from the market investigations regime. This would avoid it becoming a "regulatory joker" – a tool which would allow regulators to continue to impose regulation in nearly any scenario. There would still be some doubts about whether criteria and triggers could be adequately specified, particularly given the static/dynamic efficiency trade-offs, which were particularly important in telecoms. NRAs are used to dealing with this in the context of margin squeeze but not in the context of assessing commercial prices. There was bound to be a bias to static harm as it was easier to measure competition on

price (vs competition to increase value). This led to big risk of Type 1 errors and a lack of predictability.

## Section 3

# Terminology

During the roundtable and in the above summary it was agreed to use the following definitions.

**Unilateral market power** – The ability of a firm to act independently of its competitors and customers in order to influence market outcomes such as price, quality or quantity. Unilateral market power can arise due to, amongst others, capacity constraints, product differentiation or barriers-to-entry. Unilateral market power held by a single firm is a special case of this category.

**Tacit coordination** – Tacit collusion arises if suppliers succeed in dampening competitive constraints by collectively altering their conduct to behave less aggressively and forego short-term incentives to undercut rivals. The equilibrium is therefore dependent on the coordination and at risk of breaking down if coordination mechanisms are disrupted. It is achieved through implicit understanding between firms, but without any formal arrangements.

**Single firm dominance** – This refers to the legal concept of a single firm holding a position of economic strength such that it is able to act independently of its competitors and customers.

**Joint Dominance** – This refers to the legal concept of more than one firm together holding a position equivalent to dominance. Within existing telecoms and competition case law Joint Dominance has been equated with tacit collusion, albeit this precedent has not explicitly excluded the prospect of unilateral market power held by more than one firm also being designated as Joint Dominance.

**Significant market power** – The concept in the European Telecoms Framework that an undertaking shall be deemed to have significant market power if, either individually or jointly with others, it enjoys a position equivalent to dominance. (see Article 14 of the European Telecoms Framework Directive).

**Tight oligopoly** – A market with a small number of large firms where more than one firm holds a degree of unilateral market power and this leads to ineffective competition and in turn consumer detriment.