Strengthening competition policy in Latin American countries:
the application of competition law in the telecommunications sector

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Contents

FOREWORD **5**

1 INTRODUCTION **6**

2 THE ROLE OF COMPETITION LAW IN THE TELECOMMUNICATIONS SECTOR **8**

3 THE BASICS: MARKET DEFINITION AND ASSESSMENT OF MARKET POWER **22**

3.1 INTRODUCTION 22

3.2 DEFINING THE RELEVANT MARKET 22

3.3 ASSESSMENT OF MARKET POWER 30

4 COMMON COMPETITION LAW ISSUES IN LATIN AMERICA. **35**

4.1 EXPLOITATIVE PRICING BY A SINGLE FIRM 36

4.2 REFUSAL TO DEAL 47

4.3 PRICE AND NON-PRICE DISCRIMINATION 61

4.4 PREDATORY PRICING 75

4.5 MARGIN SQUEEZE 81

4.6 COLLUSIVE BEHAVIOUR 93

4.7 MOBILE NETWORK SHARING 104

5 MERGERS AMONG TELECOMMUNICATIONS OPERATORS **116**

6 CONCLUSION **138**

ANNEX 1: GLOSSARY **139**

ANNEX 2: TABLE OF CASES SUMMARISED **148**

ANNEX 3: SELECTED BIBLIOGRAPHY **150**

ANNEX 4: BIOGRAPHICAL NOTES ON THE AUTHORS **153**

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FOREWORD

In this paper we set out ways in which competition law can be applied to the telecommunications sector. The intended audience consists of officials in competition authorities in Latin American countries. Our goal is not to provide detailed guidance over how to conduct an investigation, to reach a decision and to run a case, but to outline the type of conduct which an authority might wish to investigate, to indicate the nature of the evidence that may be required to determine if the law has been broken, and to show in general terms how that evidence can be deployed in a decision document and defended in subsequent appeals. By way of illustration, we also summarise several past cases, drawn from Latin American, or in some instances, other jurisdictions.

The paper starts with three introductory chapters. The first sets out the plan of the paper; the second deals with the relationship between competition law and sector-specific legislation which is also, and often simultaneously, applied to the sector; the third chapter briefly discusses the application to the telecommunications sector of two crucial instruments employed by competition authorities - the definition of markets and the assessment of market power. We emphasise that the nature of the issues is likely to be different as between fixed and mobile (wireline and wireless) networks, in view of the greater scope for multiple competitors in the case of wireless networks.

The introductory chapters are followed with an analyses of seven competition issues which recent experience suggests authorities are likely to choose to investigate or will have been drawn to their attention by complainants. Finally, we review aspects of merger control in the sector.

Each country has its own competition law, and it has not been feasible to compare and contrast the laws operating in the region. We are, however, helped by the fact that in recent years there has been a degree of convergence on basic principles, often governed by reflection in law and practice of a better understanding of the fundamental economic forces in operation in particular markets, and of how customers, consumers and competitors may in certain circumstances, need protection from suppliers. In what follows we seek to present a version of this increasingly common mode of analysis. **But it may not conform to the provisions of the law in a particular country.**

This means that our work cannot be used directly in any particular case. We hope, however that it will provide a starting point in the understanding of key issues, and that the examples given of successful cases will show how the law can be applied to benefit consumers in the sector and the

economy as a whole.

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1 INTRODUCTION

The telecommunications sector has gone through radical changes in the past twenty years, with the astonishing spread of new mobile services and the development of data services, delivered on both fixed and mobile networks. The introduction of mobile networks has radically changed the competitive dynamic, by allowing several networks to co-exist, as compared with the monopoly normally encountered in fixed networks. This development has considerably increased the scope of competition and, correspondingly, of competition law.

In choosing which applications of competition law to telecommunications to cover in this report, we have opted largely for forms of abusive behaviour which have been widely observed in the telecommunications sector throughout the world. These are:

- excessive or exploitative pricing
- price or non-price discrimination
- predatory pricing
- margin squeeze
- collusive behaviour
- network sharing.

In each case, we set out the behaviour which might be unlawful; the evidence which bears on whether competition law has been breached; and the remedies which might be applied. We also present some relevant case summaries.

In the final chapter we offer an analysis of how a competition authority might address issues relating to mergers or joint ventures between telecommunications firms.

We begin, however, with two chapters setting out the relationship between competition law and telecommunications-specific regulation, and summarizing in relation to the telecommunications sector two analytical tools widely used in competition law – market definition and the assessment of market power.

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2 THE ROLE OF COMPETITION LAW IN THE TELECOMMUNICATIONS SECTOR

Typically, competition law is not the only form of legislation designed to influence the structure and the behaviour of firms in the telecommunications sector. Telecommunications firms are typically also subject to economic regulation via sector-specific laws. This chapter both outlines key features of the sector which distinguish it from many other industries, and discusses, in the context of this sector, the interaction of competition law and regulation.

Features of fixed and mobile networks

The discussion of the features of the sector is essentially in two parts, corresponding to fixed networks and wireless networks. Fixed networks, where they serve customers in a given area, are typically limited in number to one or two,[1] except in central business districts where there may be a large number of fibre networks serving major, often international companies. Such fixed local distribution networks, or 'local loops' require very large up-front sunk[2] investment, and are difficult for competitors to duplicate.[3] Mobile networks require less investment, are scalable, and typically number between two and five, controlled by the relevant government's spectrum management policy. Even absent this constraint, the number of mobile operators may be restricted because within the framework of current mobile technologies cost and demand features may limit the number of separate networks to a few. The effect of these features is likely to depend upon geography, with urban areas more capable than rural ones of supporting a larger number of networks.

The distribution networks of industries like fixed telecommunications are characterized by several features which distinguish them from other sectors. These include:

- high fixed costs, which impose on operators a need to deploy substantial amounts of capital before offering service to customer;
- economies of scale, which give a potential cost advantage to the largest firm in the marketplace;

[1] For example in the European Union, only one home in four is passed by two or more fixed networks.

[2] A 'sunk' investment is one which cannot be retrieved if the firm goes out of business.

[3] See W M Sharkey, 'Representation of technology and production', in M Cave et al (eds.), *Handbook of Telecommunications Economics*, Volume 1, Elsevier, 2002, pp. 179-222.

- economies of density, which give a unit cost advantage to the firm with the largest number of customers in a particular delivery area;
- economies of scope, which confer an advantage on a firm providing two or more services (such as voice and broadband, or voice, broadband and broadcast services) over the same infrastructure.

These factors make the evolution of the fixed telecommunications sector into an 'ordinary' competitive or contestable sector problematic. Historically, the market was accepted as being a monopoly and the associated problem of market power was dealt with by public ownership or regulation of an investor-owned operator, where regulation took the form of controlling retail prices charged by an end-to-end vertically integrated monopolist. However, the results of these forms of intervention were not entirely satisfactory, particularly as innovation played an increasing role in the sector's development. Attention thus focused upon enhancing the role of competition as a catalyst for investment and innovation.

In recent years this has taken the form, in many countries, of a strategy of breaking down ('unbundling') into several components the activities carried out by the fixed incumbent. This firm is required to make available to competitors the use of those assets which, because of their costs characteristics, cannot be replicated by an entrant. Competitors can then, by a combination of inputs which they 'make' (or supply themselves) and those which they 'buy' (from the incumbent), compete in retail markets. This form of competition is often called 'access-based', because competitors rely on their access to the incumbent's products to supply their customer. The alternative in which competitors rely solely on their own facilities is called 'infrastructure' competition.

Regulation in the European Union relies heavily upon access-based competition. But not all jurisdictions have adopted this strategy. The United States is a conspicuous example. After a flirtation with access-based competition prior to 2004, more recently it has relied not on 'access-based' competition achieved through unbundling but upon the promotion of direct head-to-head competition between separate telecommunications and cable networks. (Because in many countries cable networks are confined to urban areas, this form of competition is regional rather than national.) Other countries, with less developed fixed networks and less elaborate regimes for regulating them, have also so far refrained from imposing unbundling. There is an extensive controversy on the effects of the unbundling strategy, but its merits are not considered here.[4]

[4] For a review, see C Cambini and Y Jiang, 'Broadband investment and regulation – a literature review',

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Where unbundling occurs, one operator – the incumbent or historic monopolist – is providing access to all the others. This is known as 'one-way access.' The other 'two-way' form of access arises where operators need to interact reciprocally to complete calls or data transfers which originate on one network and terminate on another. In many jurisdictions, the calling party pays the full charge for the call; that is, the calling party's operator has to pay the receiving party's operator for the call termination service.[5] In this case, the terminating operator may exercise market power through its sole control of access to the receiver on the telephone line in question, and use that market power by charging a high price for termination.[6] This may provide a justification for some form of intervention, either under competition law or under sector-specific telecommunications law.[7] If, however, the receiving party has to pay for call termination,[8] then the terminating operator has to compete for the subscriber's business by charging low termination as well as outgoing call charges, and does not enjoy the same market power as under calling party pays.

This account shows that, in the case of fixed networks, normally the incumbent operator can acquire market power by its ownership of facilities which entrants cannot replicate. In contrast, under certain circumstances any operator can exercise market power by its control of a bottleneck facility such as termination.

The termination issue described above arises as much with mobile networks as with fixed; in practice, it may be even more acute as the price which operators have charged for mobile termination has been high. However, mobile networks are significantly easier to replicate than fixed ones. The initial investment costs can be low, with more capacity added as demand increases. But the availability of spectrum represents a key barrier to entry. Without a willingness on the part of the government or spectrum regulator to issue additional spectrum licences, entry cannot occur. Moreover, it may be necessary to place a cap on the amount of additional spectrum existing operators can acquire in later auctions; otherwise they may forestall new entry by buying up all that is available.[9]

Telecommunications Policy, 33, 2009, pp. 559-574.

[5] This is known as calling party pays or CPP.

[6] The asset giving this control is often known as a 'bottleneck'.

[7] We consider the difference between, and the choice between, these two alternatives below.

[8] Known as receiving party pays or RPP.

[9] For an account on Latin American experience of such caps, See Arthur D Little, *Mobile broadband, competition and spectrum caps,* GSMA, 2009.

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Observations of the structure of the mobile industry suggests that, with the exception of a few outliers such as India with a dozen or more operators, the number of separate networks usually lies between two and five. This may be an artefact of spectrum policy, or the result of the mobile sector having cost and demand structures which limit the number of network operators in the market. A recent study has suggested that high levels of diffusion of services can be achieved with as few as three operators.[10] There also appear to be systematic difficulties in the way of firms entering a mobile market which is already saturated, when it is already served by three or more operators, though this may be due as much to strategic entry barriers put in place by existing operators as to 'innocent' cost-related barriers. Market structures limited to a small number of firms do raise issues concerning the possibility of collusion in the current market place or following a merger.[11]

Many mobile operators around the world have entered into voluntary agreements with so-called mobile virtual network operators or MVNOs, which service their own retail customers utilising the facilities of a mobile network operator or MNO. This is the mobile sector manifestation of (voluntary) unbundling. An MVNO can range from being no more than a reseller of the MNO's services to providing many inputs itself and simply relying on the MNO for access to a mast or to antennae. Where MNOs refuse to contract with MVNOs, the question may arise as to whether a competition authority should find this an anti-competitive act.

In general, however, the competition issues arising in the mobile sector are less intractable than those found in fixed telecommunications.

Competition law and sector-specific regulation

It was noted of the telecommunications sector, seen more markedly in the case of fixed than of mobile networks, that it had characteristics which make it harder to ensure efficiency and to protect customers and competitors from abuse of market power. The two legal instruments at hand to achieve these objectives are competition law and telecommunications regulation.

Competition law typically applies generally to economic activity within an economy. It relies on prohibiting specified forms of abuse of market power. It is applied *ex post* or 'after the fact', typically via an investigation of a firm's conduct in response to a complaint or on a competition

[10] For some evidence on this issue see Y Li and B Lyons, *Three Private Firms and an Independent Regulator are Sufficient for Rapid Mobile Network Penetration*, CCP Working Paper 11-1, University of East Anglia.

[11] See Chs. 4.6 and 5 below.

authority's own initiative. A firm found to have breached competition law is usually subject to the civil penalty of a fine, although it or its executives may also be subject to criminal penalties. Such *ex post* penalties do, of course, have a deterrent effect with respect to future conduct.

A separate strand of competition law permits the authority to prohibit mergers which will lead to dominance or a significant lessening of competition. By its very nature, this is *ex ante* or prospective rather than *ex post* or retrospective.

Sector-specific regulation is tailored to the particular challenges identified in an industry. Like merger control, it is often described as operating *ex ante* or prospectively. For example, it might take the form of the regulator carrying out an analysis of the market for copper loops in the future, and on that basis requiring an operator to supply such loops to its competitors over the period of, say the following four years, at a price and subject to other terms set by the regulator. Failure to comply will attract a penalty. In a regulatory regime in which obligations are embedded in a licence to operate, the penalty may even be withdrawal of that licence.

In practice, however, the sharp dividing line between *ex post* competition law and *ex ante* regulation is blurred.[12] This is necessarily so with merger control, where the authority must conduct an analysis anticipating the effect of further concentration and may in some circumstances impose conditions on the merger, sometimes including a condition to supply competitors.[13]

However, even outside the merger field, competition law and regulatory provisions may converge. For example, competition law in many jurisdictions prohibits price and non-price discrimination by certain firms. In the European regulatory framework for telecommunications, for example, a prohibition on discrimination[14] can be imposed on a regulated firm under the sector-specific legislation and using competition law. In the same jurisdiction, margin squeezes[15] are prohibited under both European competition law and under sector-specific rules. As a third example, competitors' use of an incumbent's facilities can be imposed either using regulatory provisions for

[12] See M. Cave and P Crowther, 'Pre-emptive competition policy meets regulatory anti-trust,' *European Competition Law Review,* Vol. 26, 9, 2005, pp. 481-490.

[13] For example, in April 2011 the US Department of Justice permitted the acquisition by Google of a travel software firm ITA on condition that Google continues for 5 years to license the software to other companies; develops ITA products and offers them to competitors; and erects a firewall so it cannot see sensitive information from competitors.

[14] See Chapter 4.3.

[15] See chapter 4.5.

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mandated access obligations, or using competition law prohibitions on refusal to deal.[16]

It is thus necessary to recognise that the distinction between competition law and regulation is not absolute; to some degree they can be substitutes. This raises two further issues considered below. Should they be applied simultaneously? And, if both are deployed in a specific instance, should they be deployed by the same or by a separate authority? But first we review the advantages and disadvantages of each.

The relative advantages of competition law and of telecommunications-specific legislation have been examined most systematically in Europe. When the new regulatory framework for telecommunications was introduced in 2002, it was done on the basis that the operation of sector-specific regulation was confined to markets which satisfied the following three criteria:[17]

> "*The first criterion is that a market is subject to high and non-transitory entry barriers. The presence of high and non-transitory entry barriers, although a necessary condition, is not of itself a sufficient condition to warrant inclusion of a given defined market…*
>
> *The second criterion …. is that a market has characteristics such that it will not tend over time towards effective competition. This criterion is a dynamic one and takes into account a number of structural and behavioural aspects.*
>
> *The third criterion considers the insufficiency of competition law by itself to deal with the market failure (without ex ante regulation), taking account of the particular characteristics of the electronic communications sector*."

The first two criteria describe the presence and expected continuation of barriers to entry. As noted above, these might arise either from the 'natural monopoly' cost conditions, or from the control by a firm of a particular 'bottleneck', as may arise for example, when a fixed or mobile operator controls the sole means of terminating a call to a customer on its network.

The third criterion implies a preference for competition law, except where it is insufficient to deal

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[16] See chapter 4.2.

[17] European Commission, *Commission Recommendation on Relevant Product and Service Markets within the electronic* communications sector susceptible to ex ante regulation, (Second edition) {(C(2007) 5406)}, p. 8.

with the problem. Why might it be insufficient? According to the European Commission,[18]

> "*Such circumstances would for example include situations where the regulatory obligation necessary to remedy a market failure could not be imposed under competition law (e.g. access obligations under certain circumstances or specific cost accounting requirements), where the compliance requirements of an intervention to redress a market failure are extensive (e.g. the need for detailed accounting for regulatory purposes, assessment of costs, monitoring of terms and conditions including technical parameters and so on) or where frequent and/or timely intervention is indispensable, or where creating legal certainty is of paramount concern (e.g. multi-period price control obligations).*"

Since the decision to regulate has to be renewed every few years, in essence, this creates a system in which all regulatory interventions have 'sunset clauses' built into them, in the sense that they can only continue subject to an express finding that they were still needed. Absent such a finding, the default is application of competition law. Underlying this approach is a strong belief in the merits of deregulation and, hence, a preference for generic competition law over sector-specific regulation.

Not every country will have, or will so clearly express, this preference. But the observations above about the difference between competition law and regulation have more general application – in particular the observation that competition law may lack some instruments, for example to mandate access or to require the provision of information, which a regulator may have recourse to; that application of some remedies may impose more detailed and continuous control of a firm's behaviour than is normally undertaken by competition authorities, which generally prefer once-and-for-all structural solutions to continuing behavioural interventions; and that ex ante regulation can provide more certainty to competitors making substantial investments than can ex post competition law.

There is one further factor which the European Commission's discussion politely omits: that the regulator in a particular jurisdiction may not be effective; for example, it may be captured by the dominant telecommunications suppliers. In such a situation, the comparative advantage of the competition authority in intervening is enhanced.

Coordination between competition and regulatory authorities

The previous section has discussed the relative advantages of competition law and regulation in

[18] *Ibid*., pp. 10-11.

tackling competition-related problems in telecommunications. However, interventions have to be co-ordinated wherever possible between enforcement agencies. Each enforcement agency (competition authority or telecommunications regulator) will be governed by its own statute which gives it a greater or lesser degree of freedom in deciding whether and how to intervene.

Two separate issues arise. First, what is the division of labour between telecommunications regulation, based on sector-specific law, and the application of competition law? Second, which organisation is responsible for enforcing competition law?

In relation to the second issue, the following models can be observed:

(a) the sectoral regulator has no competition powers;

(b) the sectoral regulator has full competition powers over the sector, to the exclusion of all other authorities (including the competition authority);

(c) the sectoral regulator and the competition authority exercise the competition powers concurrently; in other words, they share them; and

(d) a single agency enforces both competition law and sector-specific law.

In all cases except the last, the need for coordination and cooperation will arise at a point in time. Even in those cases where the sectoral regulator has exclusive competition powers in its sector, coordination and cooperation at the level of policy (e.g. guidelines on economic issues, best practice principles), approach and even on administrative issues (from training to recruitment) can be useful for all. Where competition powers are exercised jointly or concurrently, there is a stronger need for prior agreement about who does what, to avoid duplication or inconsistent decisions.[19]

The more fundamental issue concerns the scope and application of competition law on one hand and sector-specific regulation on the other. Here the following issues may arise:

a) which law is best placed is better placed to deal with a case where an issue can be dealt with both under competition law by the competition authority and under sector-specific law by the regulator; or should both intervene?

b) how do authorities avoid the market players using them to select a forum that suits them?

[19] To see how this form of concurrency has been dealt with in the United Kingdom, see *Competition Act 1998 (Concurrency) Regulations 2000*, and Office of Fair Trading, *Guideline 405, Concurrent Application to Regulated Industries.*

c) how they can best cooperate for the benefit of the country?

Where co-ordination between agencies is feasible, it is likely that the division of labour proposed above by the European Commission will make sense. This broadly gives *ex ante* regulation to the telecommunications regulator. For example, if the issue in question is access to a local network, and the chosen instrument is a mandatory cost-based access charge, it is clear that the telecommunications regulator is likely to be better equipped in terms of powers and expertise to both set and enforce the price control.

Other matters are likely to fall within the ambit of both authorities, and their comparative advantage may not be clear. In particular, there are many aspects of operator conduct which are not subject to *ex ante* regulation but which are potentially subject to investigation under both competition and telecommunications statutes. A good example is price discrimination, where there have been a number of claims that mobile operators have set retail rates for on-net calls which are so much below the equivalent rates for off-net calls that they become anti-competitive. Economists have argued in this connection that a degree of difference is justified, and may even benefit consumers, but if the practice is taken to excess by a firm with a high degree of market power, the effect may be to restrict or distort competition. In other words, the pattern of charges is not automatically illegal, but if taken to excess it may become so.

In a case like this, both competition law and telecommunications law may give the relevant authority a basis to conduct an investigation. It may be better in the first instance if only one acts. But which one? The telecommunications regulator may have more knowledge of the markets involved and have collated relevant data over time, but the competition authority may have more experience of discriminatory pricing in a variety of sectors, and of where it crosses the line into illegal conduct.

An example where a regulator had decided that the competition authority was best placed to deal with an issue is provided by OFTEL, the then telecommunications regulator in the UK. In 1996 it took the view that a number of cases concerning unfair terms in mobile telephony contracts with consumers were best dealt with by the competition authority because the latter had expertise in this area and because the issue was more generic that industry-specific.

Co-ordination in such 'borderline' cases is best negotiated in advance, possibly within a framework for establishing a memorandum of understanding (MoU) between the two authorities. This will set

out, amongst other things, how cases of this kind will be dealt with. Factors likely to be taken into account include:

- whether the case goes beyond the ambit of the regulator – in which case it will not be able to deal with it;
- whether the regulator or the competition authority has dealt with the case, or a related one, previously;
- which agency is best placed in terms of expertise and access to data to deal with the issue;
- the likely remedies which will be imposed, if remedies are necessary; if detailed monitoring and continuing intervention are required, then the regulator may be best placed to take the lead;
- the degree to which the markets in question are close to effective competition; the more competitive they are, the greater likelihood that the competition authority will be better placed to intervene.

In Jordan a MoU was signed between the regulator and the competition authority with a view to coordinating the relationship between them, in order to "*avoid duplication of procedures and decisions in the sector, prevent any variation of decisions, ensure the progress of performance and improve the economic efficiency through exchange of information and knowledge between the two entities*".[20] A similar MoU is in effect in Mauritius.[21] In the Netherlands a Cooperation Protocol sets

[20] Apparently the terms of the MoU oblige each party to:

- Provide the other party with any legal, technical or economic assistance and support regarding any complaints or applications submitted to it related to competition in the telecom sector
- Cooperate in conducting investigation
- Notify the other party to make its representations upon receipt of any complaint or claim related to competition. The other party shall inform the first party with its preliminary representation regarding the complaint or the claim within a period not exceeding 2 weeks as from the date of notification
- Inform the other party with its preliminary decision regarding the complaint , in order to afford an opportunity to the other party to make its representations prior to the issuance of the decision by the Examining Party,
- The Examining Party, to provide the other party with a copy of its studies made on the complaint, and a copy of the decision made in this regard.
- Both parties to forbear to perform any procedures until the other party makes its representations.
- Consult with each other before performing any functions, in case that both parties receipt, at the same time, a complaint or claim related to competition in the telecom sector
- Entitles the TRC to request from the CD to carry out any of the powers granted to it by the Competition Law.

Presentation - Competition Safeguards in the Telecommunications Sector - Jordan's case Presented to the ITU/BDT Arab Regional workshop on "Developing Competition Polices and Strategies in Telecommunications" Rabat (Morocco)19, -21 December 2005 By Muwaffaq Abu Aqola Commissioner Telecommunication Regulatory Commission Jordan.

[21] MoU between the Competition Commission of Mauritius (CCM) and the Information and Communication Technologies Authority (ICTA).

out the agreements for cooperation between the Dutch ICT regulator, OPTA, and the Dutch Competition Authority, NMa. The Protocol describes agreements determining how matters that may involve the performance of duties by both OPTA and the NMa under their respective enabling laws will be addressed so as to facilitate coordinated action. The Protocol also describes agreements on the treatment of matters that require OPTA to interpret and apply certain terms contained in the Dutch Competition Act. It is now intended that the two bodies will merge from 2013; this will make the Protocol redundant.

Of course, concluding a MoU on co-operation does not generally absolve an authority from intervening if it determines that it is required by its statute to do so. If an authority concludes that another agency has allowed a situation to develop which contravenes the law by which it is guided, then in many jurisdictions it will be obliged to act. An example of an occurrence of this kind in the European Union is given in the next section.

Co-operation between a competition authority and a telecommunications regulator can take also other forms. Thus it may be permissible for the two to share some data in specific cases, but this would normally require express legal provision as in most cases the data submitted would be confidential and sharing of the same without the express agreement of the parties or legal power to do so may be prohibited.

The cooperation can also cover areas such as developing joint guidelines or policies as to areas where they may both have jurisdiction. This not only helps enhance the coordination between the two authorities but also removes uncertainty from the market as to possible forum shopping (i.e. which authority would be best for ones case) and ensures that similar results would have been arrived irrespective of the authority making the decision.

Equally, the two authorities may deal with different stages of the issue. If permitted by law, a competition authority may investigate a case and reach a decision which requires subsequent monitoring of a telecommunications operator's future conduct. In such a case it may be best for the telecommunications regulator to conduct the monitoring and report the results or breaches to the competition authority.

Should competition law be disapplied where there is regulation?

The above discussion has assumed that competition law and telecommunications law are applicable simultaneously. But this is not necessarily the case. This question has recently come to the fore as a

result of a decision of the US Supreme Court in *Trinko,*[22] that in certain circumstances antitrust law should not apply if regulatory remedies are available.[23] The judgment, which involved a departure from previous precedent, concerned a situation in which Trinko, a customer of AT&T, contended in a class action that Verizon, the local loop monopolist, had refused to supply AT&T with certain essential facilities, and sought damages. The Supreme Court held that the essential facilities doctrine[24] could have no application in circumstances where a state or federal agency has effective power to compel sharing and to regulate its scope or terms. In this case, the Federal Communications Commission, the regulator, not only had such a power but also had exercised it.[25]

The comparison between *Trinko* and a contemporary case in Europe drew attention to the sharp differences between the approaches adopted in the two. In *Deutsche Telekom*,[26] the European Court upheld a European Commission decision that the operator had breached competition law by conducting a margin squeeze even in circumstances where the national telecommunications regulator had approved the prices and had specifically found no anticompetitive margin squeeze. The abiding application of European competition law has recently been confirmed in a further European Commission decision. [27]

It is not our intention to comment on the merits or otherwise of the so-called 'regulated conduct defence' against competition law implicit in the *Trinko* doctrine, except to note that the US Supreme Court criterion for its application of an effective power to regulate may be hard to establish when the regulator lacks the will or resources to implement existing law. As far as we are aware, the doctrine has not made headway outside North America.

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[22] Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, 540 U.S. 398 (2004).

[23] A clear summary of the issues can be found in R. Brunell, The Regulated Conduct Defence, OECD DAF/COMP/WP2 (2011)2.

[24] See section 4.2 concerning essential facilities and the US Supreme Court approach.

[25] Canada has adopted an approach similar to that of the US. The Competition Bureau of Canada states that where two arms of the federal government dealing with competition, as in the case in the telecommunications sector with the Competition Bureau and the Canadian Radio-television and Telecommunications Commission (CRTC), the Bureau will not pursue a matter where Parliament has articulated an intention to displace competition law enforcement by establishing a comprehensive regulatory regime and providing a regulator the authority itself to take, or to authorize another to take, action inconsistent with the Act, provided the regulator has exercised its regulatory authority in respect of the conduct in question. Where such a regulator has forborne from regulation (as is the case with the mobile telephony market in Canada) the Bureau will apply the Act to the unregulated conduct until such time as the regulator exercises its authority to vary or rescind such forbearance. Competition Bureau, Regulated Conduct Bulletin, September 2010.

[26] Deutsche Telekom AG v. European Commission, Case C-280/08 (2010).

[27] Case COMP / 39.525 - Telekomunikacja Polska (summarized below - Case 4.3.1).

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A related question is whether it is desirable that the same agency enforces regulation and competition law. This may arise where a single body applies competition law to all sectors, and in addition enforces regulation in all relevant regulated sectors. Australia and New Zealand are examples. It may also arise where there is a general competition authority, but it essentially hands over to a sectoral regulator the enforcement of at least some aspects of competition law in that regulator's sector. This happens in several European countries, including Greece[28], Ireland and the UK.

Some argue that either of these approaches leads to the most effective deployment of the two forms of intervention by a single directing intelligence. Others point to the risk that if the single agency fails, there is no-one else to pick up the pieces.

Conclusion

This chapter has examined the possible roles of competition law and policy in the telecommunications sector, from a number of perspectives. To summarise, the sector poses particular challenges in the delivery of effective competition and good outcomes for customers. Both competition law and regulation can be utilised to achieve these ends. It is argued that sector-specific regulation has advantages in dealing with persistent barriers to entry and resulting bottlenecks in fixed networks. But that leaves significant scope for competition law both in the mobile sector and in the significant parts of the fixed sector where competition can be established. In addition, the competition authority may be called upon to reinforce, or replace the efforts of a poorly resourced or failing sector-specific regulator. Although a constructive relationship between the two agencies is desirable, the competition authority must be able freely to exercise its statutory responsibility towards the telecommunications sector unless it is explicitly debarred from doing so.

Standing behind the issue of which regulator should act lies the fundamental question of whether action is required at all. Both competition and regulatory authorities can make two forms of error – by not acting when action is warranted (known as a type I error), and by acting when it is not warranted (a type II error). As an example of the first kind, a competition authority might fail to identify and punish collusive behaviour by mobile operators. As an example of the second, a regulator might impose price controls in an effectively competitive market, and thereby restrict or distort that market. Institutional arrangements can influence the likelihood of these outcomes. But they are chiefly affected by the quality of the analysis which the authorities conduct.

[28] Until early 2012 when under the new telecommunications law a provision has been made that the competition law provisions relating to the telecommunications industry are enforced by the sectoral regulator.

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3 THE BASICS: MARKET DEFINITION AND ASSESSMENT OF MARKET POWER

3.1 INTRODUCTION

There are two tools of analysis which figure in most competition cases. The first is market definition, which provides a structured way of thinking about the terrain upon which a particular firm or firms operate. The second is the assessment of market power, which provides an understanding of the potential of any firm (or firms) to injure their customers or competitors. Generally, the conduct of a single firm without market power can be ignored, as it has no capacity to do harm. But this does not apply to a dominant firm; still less to the monopolies which are often encountered in telecommunications markets.

This chapter gives brief accounts of how these tools can be deployed by competition authorities in telecommunications markets. Issues are raised in general terms only. The analysis of any particular case will depend on the specifics applying in the relevant jurisdiction.

3.2 DEFINING THE RELEVANT MARKET

Most competition authorities are required to or choose to define the markets which they analyse. In theory this is not indispensable, because the goal of the exercise is normally to establish the strength of the competitive constraints which apply to the firm under analysis, and this can sometimes be evaluated without going through the intermediate step of defining the market or markets in which the firm operates. It is also generally recognised that, when a market is defined, some constraint on the behaviour of firms within that market is exercised by firms outside it. Thus travel by train and by air between two points may be in separate markets, but train fares may still affect what airlines can charge. This means that an assessment of market power must have regard to what is going on outside as well as inside a market.

It is important that the market definition responds to the issues at stake in the investigation at hand. The same definition will not necessarily be adopted in the course of setting a price control under sector-specific legislation, or in a merger case, or in the case of an abuse such as a margin squeeze. Thus in a merger case, the starting point for the search for a market definition might be the areas in which the activities of the two merging parties overlap, while in a margin squeeze, attention might be focused upon the pattern of entry (and risk of foreclosure) in the corresponding service area.

While the appropriate definition always depends, in any situation, upon the context of the inquiry and upon the specifics of firm and end user behaviour, it is still possible to say something about commonly used tools of market definition and about common problems in the sector. As elsewhere, the arguments presented here are not based on the law or practice in any particular jurisdiction, but we try to describe market definitions as they are likely to be carried out by a typical authority. Accordingly, what follows should not be seen as a applying to any particular jurisdiction.

Tools of market definition

Markets have a product dimension (what goods or services are included?), a geographical dimension (what area do they cover?), and a temporal dimension (arising from variation over time in markets and their operation). These are considered in turn below.

Product markets combine goods or services which are relatively good substitutes for one another. The most common form of substitution is made by users, who switch or might switch their consumption from one service to another when prices change. In some jurisdictions a (usually secondary) form of substitution occurs as firms switch their existing capacity from producing one service to producing a similar one. This is often distinguished from the case in which a firm builds new capacity, which is likely to be a longer process, less relevant to current market issues.

Some product markets comprise goods or services which are bought by end users for consumption, investment or export. Others are wholesale markets, where a product is bought as an input into the production of goods or services which are then sold to end users. This aspect is important in the telecommunications sector where wholesale inputs are bought and sold by operators which then use them to provide services for end users such as voice calls or broadband.[29]

The degree to which users are able to switch consumption from one service to another can be established by looking at the functionality and other features of the two services. For example, a call on a mobile network shares many of the attributes of a call on a fixed network, but adds mobility as well. This difference in functionality might be a relevant factor in deciding whether fixed and mobile calls are in the same market.[30]

[29] Examples are: call termination, call origination, unbundled copper loops, transit services on a fixed or mobile network, wholesale broadband access, and wholesale international roaming.

[30] Or it may support the more complex conclusion that a mobile call is a substitute for a fixed call, but not *vice versa.*

An alternative, more analytical approach involves application of the so-called 'hypothetical monopolist test.'[31] Imagine a situation in which a firm had a monopoly of the supply of a single good or service, for example a brand of cola drink. Could that firm, supplying at a competitive, cost-based price, make additional profit by raising the price by 10%? This obviously will depend upon how many of its customers will switch to another drink, or make no purchase. If many do, the firm will lose a lot of business and make less profit. If this happens, it is telling us that the single brand of cola is not a separate market.

Now repeat the experiment, assuming that the firm has a monopoly of all cola drinks. Could it (unregulated) profitably raise its price above the competitive level by 10%? In this case, consumers would have to switch to non-cola drinks to escape the assumed monopoly. If only a few are prepared to do so, the price rise might increase firm profits. In this case cola drinks would be a separate market. But if the firm's profits fell, you will need to repeat the experiment supposing that a firm has a monopoly of all fizzy drinks, and then of all bottled or canned drinks, and continue until you have found a set of goods over which a price rise by the monopolist is profitable. The *smallest* set over which the hypothetical monopolist can profitably impose a small but significant and non-transitory increase in price in the product market is the correct market (this is sometimes referred to as the SSNIP test).

This thought experiment can be repeated, starting with a single operator selling outgoing mobile calls; then assuming a hypothetical monopolist of all mobile calls; and so on. However the point about the test is that it almost always is a hypothetical one. We do not usually observe a complete monopoly of cola drinks; hence we cannot observe actual market behaviour to apply the test. Instead the test at worst gives us a useful way of thinking about the market definition question.

It might be said that in some retail and wholesale telecommunications markets we do sometimes observe actual monopolies. But even this carries some dangers. The above test should be applied on the basis of a 10% increase from the competitive price. But if there is an actual unregulated monopolist, it will already have raised its price to a level at which end users are just on the point of switching to another product. At that price, the extent of substitution will be over-estimated and

[31] Developed by the Department of Justice in the United States, now used widely. See US Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines, August 19, 2010. Available at: http://www.justice.gov/atr/public/guidelines/hmg-2010.html

the market will be defined too widely.[32]

In practice, when competition authorities define product markets, they tend to use a variety of methods and sources of information. However, market definition is only a step along the way to an assessment of market power, and may come up with apparently divergent results. Provided that assessment takes proper account of all sources of constraint on a particular firm under investigation, the finer details of market definition are not decisive.

Geographical markets in telecommunications are often defined by the licensing regime: if the licences are national, then so are the markets. This is a reasonable starting point, but on occasions the number of fixed or mobile operators varies across the nation's territory. In the case where the dominant fixed operator or the largest mobile operators are either required or, for commercial reasons, choose to charge geographically uniform prices across the country then the geographical market is often taken to be national. This outcome can be regarded as having the effect of placing constraints on the firm in more competitive areas and less so in less competitive areas, thus making conditions of competition more uniform. But where different conditions of competition are associated with different prices or other conditions of supply, separate geographical markets within a country may have to be distinguished. Telecommunications regulators have rarely done this, but a competition authority may choose to do so when dealing with a particular case.

Finally, there is a temporal dimension to markets. A traditional example of this arises when seasonal growing variations lead to changing definitions of food markets.[33] More relevant to the definition of telecommunications market is the effect of technical change, especially convergence. For example, until 20 or 30 years ago, telecommunications and cable networks existed in separate 'silos' with no overlap between the services they produced. Now they, and often mobile networks too, can produces overlapping services, including calls, video and other data services. This has radically changes the definition of markets, not at the retail level, but at the network or wholesale services level.

Examples of Questions to be asked when dealing with Market Definition

Asking the following questions should assist the authority to understand the market better - it is not intended to be an exhaustive list.

- Which products or services are under consideration?
- What functions do they perform?
- Who are the target customers for the relevant products or services?
- Which features are important to the customer?
- How do the markets operate? Are there any close substitutes to the products or services in question - how would customers react if the product or service went up in price i.e. what other products could they switch to?
- Are there any costs associated with switching to alternative products or services e.g. is equipment used dedicated to the specific provider (as locked mobile phones are)? Is there any evidence of customers switching between

[32] This is

[33] R Wh

Some key market definition issues in telecommunications

This section makes some brief remarks on some key telecommunications markets which are likely to play a role in competition cases.[34] We start with retail markets, on the grounds that the demand for wholesale products such as call termination and access products such as unbundled copper loops is derived from demand for retail products. This means that, other things equal, if two services (such as broadband delivered by a telecommunications firm over a copper wire and broadband delivered by a cable network) are in the same retail market, then the wholesale inputs into both services are necessarily substitutes for each other and hence also in this regard in the same market.

[34] An interesting discussion on telecommunications market definitions in general can be found in the European Commission's Recommendation (2nd edition, 2007), but this is prepared for the purposes of ex ante regulation, including price control, so cannot simply be read across to competition law investigations.(Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC - (2007/879/EC) http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:344:0065:01:EN:HTML)

Fixed and mobile, voice and data retail markets

The most important single market definition issue in telecommunications is whether to place fixed and mobile retail services in the same market. In many parts of Latin America and elsewhere, customers have to make do with mobile voice only, but this does not mean that fixed and wireless voice are good substitutes where they are available together. The two services exhibit differences in functionality (most obviously, one is mobile) and, to a degree that varies from jurisdiction to jurisdiction, in price too.

As far as we are aware, it is a rare case where a competition authority has determined that services provided on fixed networks and those provided on mobile ones lie in the same market.[35] If such a determination were made, it would have a major effect on the analysis of fixed networks, which, where they exist, usually are a monopoly or, more rarely, a duopoly. Adding mobile networks to fixed networks would increase the number of competitors to four or five, with predictable effects on the assessment of market power. This finding of convergence may happen in the future, but predominant current practice is to separate fixed and mobile markets at the retail level, and hence usually at the wholesale level too.

Call termination markets

Chapter 2 discusses the different ways in which call termination is paid for. Under receiving party pays (RPP), the operator serving the receiving party provides the service, and recovers the costs in some fashion from its customers. Accordingly, customers rationally choose their operator on the basis of what operators charge them for a combination of outgoing calls and for the termination of incoming calls. Under calling party pays (CPP) the calling party's operator remunerates the receiving party's operator by paying them a termination charge. If the receiving party has only one number known to the calling party, there is no obvious method by which the termination charge can be

[35] A well known regulatory exception is the conclusion of the Austrian regulator (RTR) that the residential retail broadband access market included not only copper-based DSL connections but also mobile broadband and cable TV (CATV) connections. The specific circumstances of the Austrian market included the fact that mobile broadband was used by around 35% of residential customers, compared with DSL at 40% and CATV at 22%. Also the share of mobile broadband connections increased strongly accounting for approximately 70% of new broadband lines in the first three months of 2009. The 4 mobile HSDPA networks in Austria already covered between 70% and 94% of the population and analysis showed that prices of fixed and mobile broadband connections were moving closer together and that fixed broadband providers directly reacted to price reductions introduced by mobile broadband operators. The regulator also found that 75% of residential mobile broadband customers used their connection on a stand-alone basis and most mobile broadband connections were used at fixed locations such as the customer's home. This analysis was made in connection with a decision concerning the regulation of a broadband wholesale market.

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avoided.

On this basis, regulators and competition authorities have usually concluded that under CPP each operator's termination is a service for which there is no alternative available; for this reason, each fixed and mobile operator's termination is a separate market with a monopoly supplier.

Outgoing calls and call origination services

If there is more than one mobile network, there is likely to be a choice of outgoing call services, and of suppliers of the underlying wholesale services (which are bought by mobile virtual network operators, or MVNOs). The services are thus likely to be in the same market and, unless the mobile networks are colluding, there should be some level of competition. But if fixed voice services are provided in a market by a monopolist or a firm with a high level of market power, then neither the retail market nor the underlying wholesale market will be competitive.

Alternatively, if the monopolist in the wholesale market is required to sell that service to competing retailers (via the 'unbundling' process described in chapter 2), then the wholesale market may be a single operator market while the retail market is a multi-operator market.

Fixed internet access retail markets

It is usual for narrowband (dial-up) retail products to be placed in a different market than broadband services, because of differences in speed and functionality. The notion of identifying separate *broadband* services markets based on speed has generally foundered on the difficulty of establishing a clear 'break' across ranges of speeds which appear to be continuously substitutable. For this reason regulators tend to place all broadband services in the same market. A competition authority has to decide in each case if this is appropriate.

Fixed wholesale internet access markets

Regulators generally define copper and fibre access facilities (a copper loop and an unbundled fibre) as falling in the same market. The same applies to fibre- and copper-based wholesale broadband access – a combination of passive access services such as a copper or fibre loop and electronic components which allow a competitor to interconnect with a 'bitstream-type' at a regional or national point of interconnection.

Spectrum markets

We are not aware of competition law cases which have identified the extent to which telecom operator spectrum holdings at different frequencies fall in the same market. But this question is

implicit in merger cases where a requirement to hand back or divest certain frequencies is often a condition for allowing the merger to go ahead.

Conclusion

The goal of this section has been to set out some commonly adopted principles for market definition and to identify how some competition authorities have addressed particular market definition issues. It has been emphasised that there is no single uniformly correct set of market definitions. The discussion of cases below contains illustrations of telecommunications markets defined by competition authorities in Latin America and elsewhere.

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3.3 ASSESSMENT OF MARKET POWER

The fundamental goal of competition law is to prevent firms from abusing market power, to the detriment of consumers. Not surprisingly, achieving this goal requires an assessment of market power, which might be exercised unilaterally by a single firm or by several firms behaving in a co-ordinated way. In many jurisdictions, actions only count as an abuse if they are performed by a firm or firms whose market power exceeds a certain threshold. Thus a firm without market power will only harm itself if it tries to charge an excessive price or to drive out other firms by a policy of predation. Secondly, in investigating a possible abuse and designing a remedy where appropriate, a competition authority will wish to make an assessment of how much power the firm or firms in question exercise.

Turning first to the threshold for investigation of or intervention with a single firm, this is described in various jurisdictions as 'dominance,' 'significant market power,' or another similar term. The Mexican Federal Law of Economic Competition (LFCE) uses the term 'Substantial Market Power' (SMP). It does not explicitly define SMP but the law sets out the elements to be analysed in order to determine whether an economic agent enjoys such a power (market share, entry barriers, etc.). One of the elements is 'the capacity to unilaterally fix prices or substantially restrict the supply to the relevant market without competing agents being actually or potentially capable of counteracting such capacity.' There is not an explicit market-share threshold above which a company is presumed to be dominant. In Mexico as in other jurisdictions dominance is only one of the elements (legal requirements) that need to be assessed in the process of determining harm. Because the prevention of abuse of market power is the objective of the antitrust inquiry, the presence alone of such power is not in itself illegal.

In Argentina, according to section 4 of the Competition Defence Law No. 25,156 dominance exists when the individual or entity concerned:

- is the only supplier or buyer of a particular good or service whether in a local, regional, national or worldwide market;
- is not exposed to substantial competition from other competitors; or
- is in a position to determine the economic viability of a competitor in the market.

In order to determine whether a firm is in a dominant position or not, section 5 of the Law lists the following factors:

• substitutability of the goods or services involved;

• legal barriers to entry; and

• the influence that the dominant firm may have on the price or supply of the good or service under analysis and the countervailing power of its competitors.

In Brazil, Law No. 8,884/94 (article 20, II) presumes the existence of a dominant position when a company or economic group controls 20 per cent of the relevant market. For specific sectors of the economy, Brazil's Administrative Council for Economic Defence (CADE) may consider a percentage other than 20 per cent in order to presume dominance.

In Colombia, pursuant to the Constitution, the State has the obligation to avoid and control the abuse of a dominant position in the national market, and a position of market dominance is not prohibited but rather an abuse of that position. The abuse of a dominant position falls under the general prohibition of article 1 of the 1959 Law (155/59) and the 1992 Decree (2153/92) Article 50 of which lists various types of conduct constituting an abuse of dominance (such as predatory pricing, refusal to supply, exploitive pricing, etc.). The Supervisory Authority for Industry and Trade (SAIT) must demonstrate the existence of a dominant position, for which the legislation sets no thresholds of market share or any other criteria for defining a dominant position. The assessment of a dominant position is made on a case by case basis, in light of the particular circumstances of the firm and market in question.

In the European Union, the concept of dominance was defined in a 1978 judgment of the European Court, as:[36]

> "*a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers or, ultimately of consumers*."

But in Europe, being in a dominant position is not prohibited – only abuse of dominance is. However, the European Court has stated that a dominant firm 'has a special responsibility not to allow its conduct to impair undistorted competition in the common market.'[37]

The US Sherman Act condemns monopolization, and monopoly power has been defined by the

[36] Case 27/76 United Brands v Commission [1978] ECR 207.

[37] Case 322/81 Michelin v Commission [1983] ECR 3461, [1985] 1 CMLR 282, para. 57.

Supreme Court as 'the power to control price and exclude competition.'[38] However, a fairly high level of such power is required, even though the court has left it undefined.[39]

When a market has been defined, it is natural to look for a 'market share' test to define thresholds of various kinds – for further investigation or for a presumption of dominance. Many countries have adopted such tests, but the shares range from as low as 20% in Brazil, to 60% in Singapore.

Opinion has generally moved away from the use of such tests towards the more multi-dimensional process of considering a range of factors and coming to an overall evaluation. This is likely to include the degree of barriers to entry or expansion, the market share (also by comparison with the shares of other firms), changes in shares over time, ease of switching and so on.

Market power can also be exercised by firms acting in a co-ordinated, as well as a unilateral fashion. In the European Union, when this is done tacitly (without an explicit agreement) it is described as joint or collective dominance (see chapter 4.6 below). In some countries thresholds for investigation are set for the combined market shares of two or more firms.
High levels of concentration on the supply side can be limited or neutralised by high levels on the demand side. As a result 'countervailing buyer power' must be taken into account in the assessment of market power.

In telecommunications, levels of concentration tend to be high at the network level, which is normally a monopoly or duopoly in fixed distribution networks, and typically there are less than six mobile operators. Where resale or unbundling has been implemented, other parts of the value chain can be less concentrated.

A firm's market power can be constrained from outside the market as well as from within. This means, in particular, that a competition authority assessing the market power of a fixed network will have to consider the degree to which it is constrained by mobile services.

The same principle applies to call termination markets. As noted above, when the mobile sector operates a calling party pays regime, termination on each operator's network is usually defined as a separate market, with respect to which that operator is a monopolist. But the competition authority

[38] Berkey Photo, Inc. v Eastman Kodak Co., 603 F.2d 263, 297 (2d Cir. 1979) at 481
[39] See E Elhauge and D Gerardin, *Global Competition Law and Economics*, Hart publishing, 2nd Edition, 2011, pp. 283-4.

also has to consider to what extent a caller could ‘by-pass’ the termination service of the subscriber being called by, for example, contacting the person on another network; and to take a account of countervailing buyer power.

The vertical structure of the telecommunications sector also raises the question of how an operator’s market power at one level can be constrained by indirect competition from another level. Consider the following situation. A fixed operator is the sole supplier (to itself and to other operators) of copper loops in a geographical region. At the same time, the retail voice and broadband services provided over the copper network are contested by a cable network, which for technical reasons cannot be unbundled in the manner in the same way as a copper network. The fact of competition at the retail level will indirectly constrain the price which the telecommunications network operator can charge for its copper loops, because, if it charged too much for them, customers would switch to the cable network. The fact that the constraint imposed is indirect diminishes but does not eliminate its force.

Finally, we note three situations frequently encountered in the telecommunications sector which present dilemmas in the assessment of market power.

The first arises in the fixed sector when access-based competition is being developed. The fixed incumbent remains dominant in the ‘monopoly’ markets in which it has to supply services to its competitors, but if those competitors prosper they will reduce the incumbent’s market power in areas such as core networks and retail. A competition authority may have to decide when the erosion of market power has gone so far that it can no longer characterised as significant or dominant. Identifying this threshold is a difficult task.

Secondly, in some jurisdictions, a single mobile operator is able to maintain a market share well in excess of the shares of its individual competitors – say, a market share of 50-65%. Deciding whether this firm is dominant or has significant market power will almost inescapably involve consideration of a number of attributes of the firm and of its competitors in the market (see box), and the exercise of judgement.

Finally, where mobile competitors are more evenly matched, the question of collective dominance or tacit collusion may arise. This is discussed fully in chapter 4.6.

Examples of Questions to be asked when considering market power

The other “economic” part of the analysis – after the market definition – is to establish if a firm is dominant in the relevant market, or markets. Similar questions to these would also be asked in dealing with a merger case but the analysis there needs to be forward looking.

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4 COMMON COMPETITION LAW ISSUES IN LATIN AMERICA.

This chapter gives brief accounts of abuses or issues frequently encountered in competition law proceedings in Latin America or elsewhere. The forms of behaviour covered are:

- excessive or exploitative pricing (4.1),
- refusal to deal (4.2),
- price or non-price discrimination (4.3),
- predatory pricing (4.4),
- margin squeeze (4.5),
- collusive behaviour (4.6),
- network sharing (4.7).

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4.1 EXPLOITATIVE PRICING BY A SINGLE FIRM

Introduction

Breaches of competition law fall into two main categories – exploitative abuses in which a firm (or firms) directly take advantage of customers by overcharging or other means, and exclusionary abuses in which a firm or firms eliminate or weaken competitors, enhance their own market power and benefit thereby.

Competition laws in just about every jurisdiction prohibit some forms of exclusionary conduct. But there is a fundamental difference in approach in relation to exploitative practices. In the United States, there is no prohibition[40]. In Europe, 'unfair pricing' is expressly listed in the European Treaty as an abuse if practised by a dominant firm:

> "*Such abuse may, in particular, consist in:*
>
> *a) directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions;*
>
> .."[41]

In this section we explain the potential for and difficulties associated with penalising a firm for excessive pricing, and show some examples of how such action has been undertaken in the telecommunications sector.

Scepticism about the abuse of excessive pricing

In the United States, it is not an offence to hold a monopoly (unless it is based on unlawful exclusionary conduct) but it is an offence to use monopoly power. As a US Court ruled in 1979, '*a pristine monopolist …may charge as high a rate as the market will bear.*'[42] Equally the Mexican competition law does not prohibit exploitative abuses, concentrating on exclusionary practices[43] but

[40] Note, however, the Federal Trade Commission Act (1914) prohibits unfair methods, acts, and practices of competition in interstate commerce, and may be used on occasion in relation to pricing issues across states.

[41] Article 102 TFEU.

[42] Berkey Photo, Inc. v Eastman Kodak Co., 603 F.2d 263, 297 (2d Cir. 1979). In this context, 'pristine' means clean or untarnished.

[43] OECD, *Review of Telecommunications Policy and Regulation in Mexico*, OECD 2012, p. 80.

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it has the option of declaring a market as not competitive, which enables the President of Mexico to regulate prices.[44]

Competition authorities in jurisdictions outside the US that prohibit excessive pricing clearly have an option to take action on this basis. However, typically they have limited resources and have to take strategic decisions about where their resources can best be deployed. As a result the discussion about the appropriateness and feasibility of prosecuting excessive prices cases must be taken into account.

The basic conceptual argument against taking action against a firm charging excessive prices is that in doing so incentives to compete and innovate are reduced. This is explicit in US Court judgment in a telecommunications case, which states:

> "*the mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful: it is an important element of the free market system. The opportunity to charge monopoly prices for a short period is what attracts business acumen in the first place; it induces risk taking that produces innovation and economic growth*". [45]

This argument is fairly persuasive in the case of a high technology firm which by dint of successful innovation gains a temporary monopoly which is constantly threatened by equally resourceful rivals. It is less persuasive in the case of monopolies granted without a competitive process and subsequently fully protected by regulatory barriers to entry.

We do not express an opinion on the appropriateness of recognising excessive prices as an abuse, but a recent OECD Paper has summarised the pros and cons of intervention as shown in Table 1.[46]

Table 1. The pros and cons of intervention

Grounds for non-intervention	**Grounds for intervention**
markets are self-correcting	markets are not always self-correcting (market failures exist)
regulatory failure may aggravate	conduct causes a reduction in

[44] Mostly of basic necessities like staple foods.

[45] Verizon Comm'ns Inc v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 407 (2004).

[46] OECD, *Excessive Prices. Background Paper*, p. 8. Available at http://www.oecd.org/dataoecd/14/18/49482277.pdf

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market failure	consumer welfare
cost of intervention even if it successfully redresses market failure exceeds its benefits	conduct causes a reduction in total welfare (deadweight loss)
Intervention is redundant as excessive prices are competed away	may fill the gap in the competition law and allow a second shot if the authority missed exclusionary conduct
price regulation/ remedies are difficult to devise	increases popular support for competition policy
uncertainty/arbitrariness of the concept (determining excessiveness is difficult)	link between entry and excessive pre-entry price is spurious
Prohibiting monopoly prices is tantamount to prohibiting monopoly	excessive price abuses are a competition law infringement
distorts investments, and firm behaviour generally possibly fostering "gold-plating"	public policy considerations/ will of the legislator/ political pressure (primacy of politics)

What is the abuse?

The above discussion has led to attempts to establish conditions or 'screens' which identify cases where action by competition authorities against excessive pricing is appropriate. Some of these are strict enough as to rule it out in almost all circumstances. For example Evans and Padilla propose the use of the following three cumulative conditions:[47]

- the firm enjoys a (near) monopoly position in the market, which is not the result of past investments or innovations, and which is protected by insurmountable barriers to entry; and
- the prices charged by the firm widely exceed its average total costs; and
- there is a risk that those prices may prevent the emergence of new goods and

[47] Evans D.S., Padilla A.J. (2005), Excessive Prices: Using Economics to Define Administrative Legal Rules, *Journal of Competition Law and Economics* 1(1), 97-122.

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services on adjacent markets.

Others recommend less harsh screening tests. Röller proposes:[48]

- the presence of significant entry barriers;
- the market is unlikely to self-correct;
- the dominant position was due to exclusionary abuse or government actions;
- there is no regulator or there is a regulatory failure;
- no structural remedy is available.

The first three of these conditions are quite likely to be satisfied in fixed telecommunications markets. It might be natural to expect a regulator to have access to a sector-specific law enabling it to fix prices in an *ex ante* fashion, or to impose access or unbundling rules which would provide a structural solution. However, such interventions are not always available, and use of competition law to enforce access may be problematic (see chapter 4.2 on the 'Refusal to Deal '). On this basis a competition authority applying criteria similar to those of Röller (thus avoiding the obvious possible harmful effects of intervention noted above) may well decide that there are *prima facie* grounds for considering a charge of excessive pricing.

Gathering the evidence

The shortage (or complete absence) of excessive prices cases in most jurisdictions provides few precedents showing how excessive pricing can be demonstrated. Broadly these are three principal ways, which are not mutually exclusive:

- price comparisons,
- profitability analysis,
- price-cost comparisons.

In European Union jurisprudence, each of these methods is deployed to show that prices are excessive in relation to the economic value of the product supplied.

1. Price comparisons or benchmarking.

It is possible to compare the price charged for a product or service in the context under investigation with that charged in another similar context. It might be prices charged in other

[48] Röller L-H. (2007), Exploitative Abuses, in Ehlermann and Marquis (eds), *European Competition Annual 2007: A reformed Approach to Article 82.*

geographical areas, or by other producers, or prices charged for similar products or services. In the famous *United Brands* case,[49] the European Commission concluded that the prices charged by the company for bananas differed widely within Europe, for reasons not associated with transport costs. Hence the higher prices were excessive. The European Court of Justice, on the basis of a fuller comparison of costs, overturned this decision.

Another approach applicable in telecommunications might be to compare the prices of a service under investigation with the prices of other services using similar network inputs. For example, the inputs used for an internationally roamed call, made by a visitor to a country, are now essentially the same as the inputs used for an equivalent call originated by a subscriber based within the country visited by the roamer. The only extra cost is likely to be some relatively inexpensive signalling to authorise the making of the call by the roamer, and small additional wholesale transactions costs. Yet charges for the internationally roamed call are many times larger than those of the same call initiated by a subscriber within the country. This difference may furnish evidence of excessive pricing, if the supplier of the wholesale roaming service is dominant.

The difficulty with this approach is the underlying presumption that prices for similar or identical products or prices for products with the same inputs should be the same; or that price discrimination (different prices for the same thing) is an abuse. Yet much economic analysis suggests that some forms of price discrimination are desirable, and arise even in competitive markets.[50] Accordingly, unless price comparisons reveal enormous variations, they may by themselves be inconclusive.

A further complication arises in telecommunications because many of the services provided benefit two parties – for example, callers and receivers of calls. The allocation of charges between the parties may not reflect their relative benefits. In a so-called two-sided market of this kind, prices can efficiently take a variety of forms.[51]

2. Profitability analysis.

This appears to offer a more direct route to showing excessive prices: if a firm is making excessive profits, it must be charging excessive prices. However, the firm's high returns may be due to

[49] Case 27/76 United Brands co and United Brands Continental BV v Commission [1978] ECR 207.

[50] M Motta, *Competition Policy: Theory and Practice*, 2004, Ch 6; see also Chapter 5.3 below.

[51] On two-sided markets and competition policy, see David S Evans, *Essays on the Economics of Two-sided Markets*, ch. 4, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1714254.

unusual efficiency, and conversely a firm not making excessive profits may be frittering them away through inefficiency.

Even stepping over these problems, there are quite serious measurement problems. In a market economy, a firm has to offer investors the minimum return they need to persuade them to put their money into the activity in question, given its risks. Suppliers of debt and of equity will need different returns, as debt is generally associated with less risk. The average of the cost of debt and the cost of equity is known as the weighted average cost of capital (WACC). The actual return on capital employed should be compared with this activity-specific cost of capital.[52]

Doing the comparison raises a number of questions. First, how far in excess of the cost of capital must the return on capital employed be for the underlying prices to be regarded as excessive? If monopolists were told this number, they might escape censure by just remaining beneath it. In practice, a competition authority is unlikely to take action in response to a small 'excess profit,' but may be interested in large disparities– for example a cost of capital of 15% and a return on capital of 50%, with no apparent evidence of exceptional efficiency.

There is, however, a further measurement problem with respect to the rate of return on capital. For a firm, it is given by:

Return on capital employed (ROCE) = Profit/Value of capital employed.

Both elements of the right hand side of this equation are uncertain. In the simplest case, when a project has run its full course, it would be possible to compute all the cash flows and calculate the (internal) rate of return (taking account of the dates at which the cash was expended or accrued). In practice, however, the competition authority will be looking at profit and loss data and balance sheets which cover only a segment of the project's life. The data for this segment are thus sensitive to the rate at which assets are depreciated and the approach taken to revalue assets as the project goes on.

This causes major problems with long-lived assets such as those found in the civil works associated with fixed telecommunications networks, but is less severe in the case of mobile networks, where assets have much shorter lives or, as in the case of land for base stations and towers, are often traded in markets where prices can be observed. In this case, a check of the conventions applied

[52] Tim Jenkinson, 'Regulation and the cost of capital', in M Crew and D Parker (eds), *International Handbook on Economic Regulation*, 2006.

should enable the authority to establish whether a mobile firm's financial accounting data are sufficiently robust to provide an acceptable estimate of the profitability of an activity.

In some sectors there are problems in valuing intangible assets such as intellectual property. If these are neglected, the rate of profit might be overstated. However, this should not be too acute problem in telecommunications where much of the intellectual property is held by equipment suppliers or service providers.

Finally, the charge of excessive pricing is raised not against a firm's activities as a whole, but normally against a set of the products the firm produces that fall in a single market under investigation. In telecommunications, operators usually conduct activities in several markets – wholesale/network and retail, incoming and outgoing calls, voice and data, fixed and mobile. In order to capture data relevant to the activities under scrutiny, a product-specific ROCE is required. This will require an allocation of the firm's total revenues and costs. If the sector-specific-regulator has enforced accounting separation on the firm, separate accounts for, say, mobile termination may already be available. Or the sector regulator may have established an accounting methodology or prepared accounts for its own purposes, which the competition authority can have recourse to.[53] If these conditions do not apply, the calculation may be difficult to accomplish. However, sharing of data can only take place if it is not commercially confidential or where the practice is permitted by law.

3. Price cost comparisons

Where profitability data are not available an alternative approach is to compute the ratio of price to cost, or alternatively the return on sales. This too may require an allocation of costs across several product lines, and choice of an appropriate yardstick of comparison.

The scope for using these methods will differ from case to case. In practice, the best policy may be to seek to utilise all methods and to examine the degree to which the results point in the same direction.

Remedies

Suppose an authority has established that a good or service is subject to an excessive price. What

[53] The European Court of Justice has expressly stated that a competition authority may rely on the accounting methodology (in particular for apportioning common costs) used in sector regulation, in order to determine if a price is excessive. Ahmed Saeed Flugreisen et al. v. Zentrale zur Bekämpfung, [1989] E.C.R. 803, point 43.

can be done about it? The obvious solution is to control the price directly, as is often done by sector-specific regulators which routinely set termination prices, interconnection and other access prices and, sometimes, retail prices for services. The problem is that the competition authority may lack the sector expertise or information-gathering powers to do this effectively. For example, setting a forward-looking price control usually involves building a model of how the activity's costs will change over the periods of the control, as a result of output changes and technical progress.

If this is beyond the authority's capacity, it will have to fall back on a more rough and ready approach based on an estimate of costs. If the previous prices were significantly in excess of costs, this would provide a significant benefit to end users. Use of the alternative of a control on the profit margin might be imposed, but this will remove incentives to cut costs.

One way of resolving the limited capacities of a competition authority which is more expert in making a finding of excessive prices and less so in setting price controls is to hand the task of devising a remedy to the sector-specific regulator.

The alternative is to look for a structural remedy, by dividing a firm into two, either horizontally or vertically. Unfortunately, in telecommunications the monopoly power making the excessive pricing possible is often a 'bottleneck', such as control over access to a customer. (Examples are the power to terminate a mobile call or ownership of the copper line into a customer's premises.) Firms controlling access in this way cannot easily be disempowered by dividing the resource.

Cases [54]

Case 4.1.1. –Albania -2007 - Mobile termination in Albania.[55]

In November 2007 following a market investigation launched ex officio in 2005, the Albanian Competition Commission imposed on AMC (Albanian Mobile Communications) and Vodafone a fine amounting to 454,185,000 Lek (approximately $4.4 million, which equalled to 2% of each firm's annual turnover in the relevant product market). The Competition Commission found that both companies held a jointly dominant position in the mobile telephony market in Albania and that both firms abused their dominant position by applying unfair prices from 2004 to 2005.

[54] We do not give full summaries of the cases chosen, many of which involve numerous abuses. Our account is designed to emphasise treatment of the abuse covered in the relevant section of this report.

[55] See OECD, Excessive Pricing, DAF/COMP/WP2 (2011)7, pp. 84-85.

Article 9(2) (a) of the Albanian Law on Protection of Competition identifies unfair prices as one of the main forms of abuse of dominance. According to the competition authority a price is deemed unfair if it is higher than a price in a competitive market. To decide whether this is the case, it is first examined whether the price charged bears any reasonable relation to the economic value of the product, which essentially means that the price is compared with production costs. Second, where it is impossible to determine the costs, the actual price and the profit rate are compared to price and profit levels of similar products or identical products in other geographical markets. According to the authority, such analysis relies on three different approaches:

(i) establishing that the high price bears no reasonable relation to the economic value of the product,

(ii) assessing profits, (which led to the conclusion that AMC's and Vodafone's profits would be lower in a presumably competitive market), and

(iii) comparing prices of a given product with prices applied in other geographical markets.

The analysis of the relation between the actual price and the economic value of the product was short. The Competition Commission stated that "the service prices applied by [AMC and Vodafone] do not have any reasonable relation with their cost" and based this conclusion on the fact that both companies implemented a national termination fee for mobile telephony at a higher level than the threshold recommended by the Albanian Telecommunications Authority. As far as the profits are concerned, the Albanian Competition Commission pointed out that whereas in competitive markets profit rates usually decrease, both firms had "high and increasing EBITDA and profit rates". Also, comparison of ARPU (Average Revenue per User) per Minute of Usage with Western European countries showed that mobile tariffs in Albania were high. Lastly, the comparison of Albanian prices with prices in other geographical markets relied upon a conclusion drawn by a consultancy report, according to which "Albania represents an exception with regard to pricing; she is placed among EU countries that apply the highest prices".

In the aftermath of the investigation, the Competition Commission adopted a decision in which it recommended to the Council of Ministers and the Regulatory Agency for Telecommunications that immediate measures (in particular the introduction of the third mobile operator 'Eagle Mobile' and the initiation of licensing procedures for a fourth operator) should be taken in order effectively to liberalise the mobile telephony market.

Case 4.1.2. - Colombia – 2008 - Mobile telephony.[56]

[56] Minister of Commerce, Industry and Tourism, Superintendent of Industry and Commerce, Resolution Number 29631, 20 August 2008. File Number, 04126607

In August 2008 the Supervisory Authority for Industry and Trade (SAIT) with Resolution No. 29631 found COMCEL SA, TELEFONICA MOVILES SA in contravention of Section 2 of Article 50 of Decree 2153 of 1992 having abused their dominant position in the termination of fixed calls to their respective mobile networks and fined each company US$520,000.

Paragraph 1 of Article 2 of Decree 2153 of 1992, states the functions of Supervisory Authority for Industry and Trade (SAIT) are to ensure compliance with the provisions of the Constitution and law on the promotion of competition and restrictive business practices in domestic markets. Section 2 of Article 50 of Decree 2153 of 1992 limits dominant firms; (according to Article 45 of Decree 2153 – a dominant position is one in which a firm has the possibility of determining, directly or indirectly, the conditions of a market.)

Beginning with a determination of whether the firms under investigation were dominant in a relevant market, SAIT next conducted an analysis of prices for the product/service in the relevant market and whether there were substitute products/services with comparable prices. In this case, SAIT determined there were no substitute services for fixed to mobile calls and the prices charged by the mobile operator under the "calling party pay" method bore no relationship to time or cost and were above cost.

COMCEL SA, TELEFONICA MOVILES SA, and COLOMBIA MÓVIL had dominant positions in their relevant market of calls from fixed to their respective mobiles networks. Each operator individually, has a monopoly in each of the relevant markets analysed, i.e. in the termination of a call initiated on a fixed network and completed on each of their networks. In terms of excessive prices, SAIT found evidence to support the determination that from September 2003 prices for fixed to mobile calls by COMCEL SA, TELEFONICA MOVILES SA Moviles were 20% higher than mobile to fixed calls. Insufficient evidence was found to support a decision of excessive prices against COLOMBIA MÓVIL.

Conclusion

Many competition authorities have the necessary powers to apply measures to combat excessive pricing. The US approach which abjures it completely may be better suited to a very large competitive economy than a smaller one, where the number of actual or potential competitors is limited. However, commentators are right to point to the danger that overuse of the abuse may chill investment and innovation, and competition authorities should think seriously about devising screens which will prevent harmful interventions.

In relation to telecommunications, there is the important question (discussed in chapter 2 above) of whether to rely in competition law or sector-specific regulation to control an abuse. In telecommunications, many regimes have favoured *ex ante* regulation for persistent monopolies, but that approach is not always available. When it is not (and even when it is, but is not fully effective), application of many proposed screens will identify imperfectly regulated markets with persistent barriers to entry and satisfying other relevant conditions where action against the abuse of excessive pricing may be appropriate. There are precedents for using benchmarking, profitability

analysis and price-cost analysis to gather an evidence base to reach a decision.

Perhaps the biggest challenge is to find an appropriate remedy. On its own, It can be difficult for a competition authority to calibrate an appropriate behavioural remedy; and once-and-for all structural remedies are often difficult to find. But if prices were originally very high, and the damage done to end users very significant, even an approximate price control remedy can provide a breathing space in which a longer term regulatory solution can be studied and devised.

4.2 REFUSAL TO DEAL[57]

Introduction

As a 1919 US Supreme Court judgment noted, as a general rule the law "*does not restrict the long recognized right of* [a] *trader or manufacturer engaged in an entirely private business, freely to exercise* [its] *own independent discretion as to parties with whom* [it] *will deal*."[58]

This approach underpins, across both sides of the Atlantic, the principle of free market and the right to choose whom to deal with. However, it has been recognised in competition law that under certain circumstances a firm may have to deal with other firms, whether it likes it or not, and even if those other firms are its competitors.[59]

This section examines the circumstances where under competition law a firm may be 'compelled' to deal with others; i.e. where a refusal to deal or supply another firm may constitute a breach of competition law.

What is the abuse?

As mentioned above the starting point is that each firm can choose whom to deal with. A firm can only be compelled to deal with others if it abuses its monopoly or dominant position in a market. This concept of an abuse through refusal to deal is a well established duty in jurisdictions such as the European Union, Mexico, Panama and Chile.

In Mexico the Federal Economic Competition Law (LFCE) does not explicitly refer to essential infrastructure or inputs. However, it authorizes the competition authority (the CFC) to investigate and punish relative monopolistic (unilateral) practices that unjustifiably limit access to an input required by a competitor if it is to compete effectively. Specifically, Article 10 prohibits various practices that entities with market power engage in to displace competitors from the market. These include refusal to deal, price discrimination and raising costs, and measures that can be used to limit

[57] The terms 'refusal to deal' and 'refusal to supply' are used interchangeably here.

[58] Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 408 (2004) (quoting United States v. Colgate & Co., 250 U.S. 300, 307 (1919).

[59] Mandating access to a monopolist's or an incumbent's facilities is also a remedy widely used by sectoral regulators.

access to essential inputs. The CFC determines whether an input is essential on the basis of having no viable substitute, defines the relevant market, whether the party responsible for the practice has substantial power in that market and the consequences of the conduct in the market in question, or in a downstream or upstream market. If the CFC finds that the firm in question has market power and that there is exclusionary effect resulting from this behaviour, it may require non-discriminatory access to the input in question.

Panama's Competition Law 45 of 31 October 2007 prohibits economic agents with substantial power in the relevant market from undertaking unilateral action designed with a view to, or having the effect of, "unreasonably obstructing market access". It also prohibits any act that unreasonably harms or obstructs free economic competition and presence in the production, processing, distribution, supply or marketing of goods or services by economic agents with substantial power in the relevant market (Article 16, section 9). This clause has been interpreted broadly enough to cover any limitation of free competition including control of, and refusal to supply, access to an essential facility owned by a firm with market power.

Anti-trust legislation in Chile also contains no specific regulations on refusal to deal. However the rulings or resolutions issued by the Tribunal for the Protection of Free Competition (TDLC) have formed jurisprudence in this regard. Based on such rulings, it is possible to infer the principles used by the TDLC to decide whether an infrastructure must be supplied. The main defining criteria that are used have been:

1. use of the infrastructure is essential for firms to be able to participate in the market in question;
2. it is impossible to replicate the infrastructure under technically and economically viable conditions because it would be very costly to do so;
3. there is no economically viable alternative available to competitor firms; and
4. there is no technical or capacity constraint preventing the owner from selling the services provided by the facility.

Basically the idea of the obligation to deal with competitors – not assist them – is based on the principle that a dominant firm may be forced to deal if its refusal would cause serious harm to competition in the relevant market. Its primary purpose is to prevent distortion of competition and in particular to safeguard the interest of consumers rather than to protect particular competitors.[60]

[60] Advocate General Jacobs in Bronner case [1998] ECR I–7791 at. 7811.

In most cases the affected market (i.e. the one that the abuse would have the detrimental effect) may be different from the one that the firm is dominant in. Usually this market is a downstream market from the one in which the firm is dominant.

Thus the **basic** elements we have to be concerned with when examining such cases are:

1. what is the affected market?
2. does the firm in question have a dominant position in that market or a connected market?
3. is there an express or a constructive refusal to supply/ deal?
4. is that refusal to supply deal abusive?
5. is there a defence to the charge of refusal?

The relevant markets and dominance

In most jurisdictions a firm must be shown to be dominant before the question of an abuse is raised. Otherwise its actions will have no effect on competition. However in cases of this type we may find that the subject of the complaint is dominant in a market other that the one where the abuse is taking place. This is the most common case in refusal to supply cases concerning companies that have a dominant position in an upstream (network) market and enhance their profits by refusing to supply a firm in a downstream (retail) market, thus favouring their own downstream business or affiliated companies. Examples of such cases are the network telecommunications operator who refuses to provide access to a value-added provider preventing it from gaining access to the end customers, or the manufacturer of a product being refused a component/raw material that is needed to produce the end product.

Also depending on the jurisdiction it may be relevant to consider whether the product is new and as such the dominant operator is protecting it's innovations or an old one as well as whether the dominant company has been supplying the product in the past and now refuses to do so leaving the customer without the goods or services it was being supplied as opposed to having no obligation to supply and having never done so.

However, the need for dominance is always there. For example in the **Brazilian** Columbia Tri-Star case, a group of companies were accused of refusing to supply first-run motion pictures to an exhibitor owning theatres located in one city centre thus benefiting its sole competitor. In CADE's opinion, a refusal to deal was illegal only if it is performed by a firm enjoying a dominant position,

since the refusal to deal is harmless to competition if there are alternative suppliers.[61]

What constitutes a refusal to deal?

There are obvious cases where a company refuses outright to supply another company or to deal with it. These cases are clear-cut with respect to the fact of the refusal. However, there are other cases where it is not so obvious, because there is no outright refusal - the dominant party continuously finds reasons to delay concluding an agreement, or it seeks to impose unreasonable conditions on supply arrangements. In such cases the authority will have to determine if the conduct amounted to a “constructive refusal” to supply.[62] On the other hand, the insistence that the other party must accept normal commercial terms as part of the contract, which it does not accept, will not constitute a refusal.

A final question is whether there is an objective reason that would justify the refusal to deal. Assuming that all other tests identified above[63] have been met, the burden shifts to the dominant firm, which has to establish such a “defence”.

Obviously, it is not a defence to argue that the refusal was based on a commercial decision with a view to reduce the competition the company is facing or to help a related company. At the same time, it is not unreasonable for the firm to respond in a fair and proportional manner to a threat, where for example, the distributor aligns itself with a competitor. In such cases, it may be reasonable for the dominant firm to take steps so that it reduces and terminates supplies over a period of time[64].

Other acceptable justifications include refusing to supply a bad debtor[65] or, more generally, a firm

[61] CADE held that no supplier enjoyed a dominant position since the market was extremely volatile due to its dependence on the success of the motion pictures released and that it was reasonable for the suppliers to choose the best equipped exhibitor which was in a position to attract more consumers and therefore generate more revenue for the suppliers. CADE could infer that the distribution market was atomistic and that the barriers of entry were extremely low. Ruling no 080012.007758/1977-66 Rio Grande Ltda v Columbia Tristar, Buena Vista Filmes do Brasil Ltda et al.

[62] The EU Commission in its *Guidelines on enforcement priorities in applying Article [82] 102,* notes that there can be constructive refusal to supply where there is undue delay or other impediments to supply.

[63] That is to say (i) does the firm in question have a dominant position in that market or a connected market? (ii) is there a refusal to supply/ deal? (iii) is that refusal to supply deal abusive?

[64] See BBI/Boosey & Hawkes OJ 1987 L 286/36

[65] See also the EU Notice on the application of the competition rules to access agreements in the telecommunications sector, which states: “There may, of course, be justifications for such refusal – for example, vis-à-vis applicants which represent a potential credit risk.” - *Notice on the application of the competition rules to access agreements in the*

that does not abide by "*regular commercial practice*". This approach is followed in Argentina, where a refusal to supply defence rests on justifiable commercial reasons such as: lack of payment, the existence of an exclusive relationship with another distributor or client, lack of agreement on the price (assuming that this is similar to the one charged to other third parties), doubts on the solvency of the other party, etc.

In D&S v Rosen (Ruling 1016/1997), **Chile**'s former competition commission declared that refusals to deal were legal if the general conditions of supply by the dominant supplier were objective and reasonable. Objectivity requires that the conditions imposed are not within the discretion of the supplier. Usually a refusal to supply would be reasonable where the law imposes the relevant conditions which are not accepted by the prospective customer.

Other examples that might be accepted might usefully be gleaned from the EU Notice on access under competition law in telecommunications[66] which mentions the following:

> "*Relevant justifications in this context could include an overriding difficulty of providing access to the requesting company, or the need for a facility owner which has undertaken investment aimed at the introduction of a new product or service to have sufficient time and opportunity to use the facility in order to place that new product or service on the market. However, although any justification will have to be examined carefully on a case by case basis, it is particularly important in the telecommunications sector that the benefits to end-users which will arise from a competitive environment are not undermined by the actions of the former State monopolists in preventing competition from emerging and developing*."

In some cases, it may therefore be necessary for the authority to establish the facts through physical visits. We are aware of cases where an authority had to inspect sites for equipment collocation between operators, where the dominant player claimed that, as there was no space available for the other players to install equipment, it could not be obliged to allow access to third parties. Other defences include concerns about security or degradation of service, and the phasing out of the product.

The Tribunal for the Protection of Free Competition (TDLC) in Chile considers when examining a case of essential facility whether or not there are technical or capacity constraints preventing the owner

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telecommunications sector - framework, relevant markets and principles. Official Journal C 265, 22/08/1998 P. 0002 – 0028. Para 85.

[66] *Notice on the application of the competition rules to access agreements in the telecommunications sector - framework, relevant markets and principles*. Official Journal C 265, 22/08/1998 P. 0002 – 0028.

from selling the services provided by the essential facility.[67]

Essential Facilities

The term 'essential facility' has already cropped up several times in our discussion of refusal to supply, and the term may be defined in the relevant competition law. Where the law covers anti-competitive prohibitions to supply goods or services, a refusal to supply an essential facility is simply an extreme example of an anti-competitive refusal.

The essential facility doctrine ("EFD") finds its origin in a 1912 railroad case in the US, although the term itself was not used.[68] It was further developed with the *Aspen Skiing,*[69] where the US Supreme Court concluded that a monopolist has a duty to co-operate with its rivals, particularly when its anti-competitive actions are taken in pursuit of long-term detrimental effects on competitors at the expense of short-term benefits. However, the reluctance to apply this doctrine has been made very clear recently in Trinko where the Supreme Court stated (although it can be argued the statements are not really binding) that:[70]

> *"We conclude that Verizon's alleged insufficient assistance in the provision of service to rivals is not a recognized antitrust claim under this Court's existing refusal-to-deal precedents. This conclusion would be unchanged even if we considered to be established law the "essential facilities" doctrine crafted by some lower courts, …. We have never recognized such a doctrine, …, and we find no need either to recognize it or to repudiate it here. It suffices for present purposes to note that the indispensable requirement for invoking the doctrine is the unavailability of access to the "essential facilities"; where access exists, the doctrine serves no purpose."*

Thus in the United States the obligation to supply is construed as an exception to the general

[67] See OECD *Latin American Competition Forum, Session I Competition Principles in Essential Facilities, Contribution from Chile (TDLC),* September 2010.

[68] U.S. v. Terminal Railroad Association (224 U.S. 383 (1912)) The case concerned the acquisition and combination in a single system of all the independent terminal facilities of St. Louis, under the control of the terminal company which was in turn owned and controlled by fourteen of the twenty-four railroad companies converging on St. Louis. The Supreme Court stated that the refusal of the owner of a vital network, such as a railway terminal, to make access available to non-owners may "*restrain […] commerce among the States and [constitutes] an attempt to monopolize commerce among the States […]*" and ordered the fourteen proprietary railroad companies to "*provid[e] for the admission of any existing or future railroad to joint ownership and control of the combined terminal properties, upon such just and reasonable terms as shall place such applying company upon a plane of equality in respect of benefits and burdens with the present proprietary companies*".

[69] 472 U.S. 585 (1985)

[70] Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, 540 U.S. 398 (2004).

principle of freedom to trade and as such compulsory access, if it exists at all, is and should be very exceptional. The elements of the essential facility doctrine in the U.S. can thus be summarised[71] as being:

- ownership and/or control of a facility, whether it is material or immaterial;
- impossibility for competitors to use substitute means of competition and/or to duplicate the facility;
- the facility is a real bottleneck, and therefore essential for the development of competition on the downstream market[72].

The EU approach as set out by the European Court of Justice (ECJ) in the Bronner Case[73] (where the complainant claimed that it could neither itself create a nationwide newspaper home delivery scheme in Austria similar to that of the dominant player, nor find an alternative method, owing to its low number of its subscribers), is that the establishment of abuse has three conditions:

- refusal is likely to exclude all competition in the relevant market;
- access is essential and indispensable in order to continue the business activity in question;
- access is refused without any reasonable justification and thus it can be designated as arbitrary, discriminative or predatory.

The ECJ held that the mere fact that a setting up an alternative facility would not be economically viable does not mean that the existing scheme is indispensable[74].

It is therefore important to note the fact that whether using the US or the EU approach (or for that

[71] "The essential facility doctrine: similarities and differences between the American and the European approach" Antonio Capobianco. 2001 *ELRev* 548

[72] The complementary factors necessary to find an antitrust violation are:

- formal or a *de facto* refusal to access the essential facility;
- absence of legitimate justifications for the refusal;
- elimination of competition must not be momentary, but relatively permanent.

[73] O*scar Bronner* GmbH *v. Mediaprint* Zeitungs und Zeitschriftenverlag GmbH, Case C-7/97, 1998 E.C.R. I-7791, [1999] 4 C.M.L.R. 112.

[74] Access may be considered indispensable only if the establishment of a second facility was not viable for a firm whose turnover is comparable to the turnover of the undertaking with the existing scheme. The possibility of duplication is to be examined in general and not in relation to the particular complainant. Accordingly, the ECJ held that since there were no "*technical, legal or even economic obstacles capable of making it impossible, or even unreasonably difficult, for any other [firm], alone or in cooperation with other[s]*" to set up an alternative to the facility in question in that the facility of the dominant firm was potentially substitutable in economic terms.

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matter any other approach identified here), it is not enough to show that having an alternative will be more costly in that *"[a]s the word 'essential' indicates, a plaintiff must show more than inconvenience, or some economic loss; he must show that an alternative to the facility is not feasible*[75]". This is similar to the approach in Brazil under Law No. 8,884/94 article 20. CADE's jurisprudence defined abuse to be present when *inter alia* the refusal of access is likely to eliminate all competition in the market, is indispensable for entering the market, there is no objective or reasonable justification for the refusal and the competitor is unable, reasonably or in practice, to duplicate the essential facility.

Gathering the evidence

In cases of refusal to supply the evidence collection, on occasions, can be difficult.

The first possible area of difficulty involves cases where the abuse takes place in a market other than the one where the subject of the complaint is dominant. In such cases, one needs to establish dominance under the normal rules as set out previously in Chapter 3 and then provide evidence of the connection between that market and the one where the abuse is taking place. In telecommunications this may not be difficult since typically there is a dominant position in an upstream or network market and an abuse in a downstream, often a retail, market thus making the connection easy.

The second issue is the evidence relating to the "refusal". Again, in certain cases there may be an outright refusal. However, these cases are few in number. More commonly the competition authority encounters a "constructive" refusal to supply, whereby the dominant player is delaying the supply of a service. In such cases the authority will need to assess correspondence/ emails exchanged over a period of time to satisfy itself that the dominant party was simply using delaying tactics. A good example is EU Commission Decision Case COMP / 39.525 - Telekomunikacja Polska, (Case 4.3.1, summarised below) where the dominant player used a series of delaying tactics to delay and effectively refuse supply of the services to a competitor to its retail affiliate.

The authority must also establish that the subject of the complaint owns and/or controls the facility. For example, the claim may be raised that the facility is leased and it is under the terms of that lease agreement that access cannot be supplied. This was a common argument in cases involving submarine cables where these were built by third parties; the dominant telecommunications operator in a country would argue that any restrictions relating to providing third party access were imposed by the owner of the cable and not by the company itself. Thus the firm claimed the refusal

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[75] Twin Labs v. Weider health & Fitness*,* 900 F.2d 566, 570 (2nd Circ, 1990)

was not due to its decisions.

Also in an essential facility case the authority is likely to need to collect evidence that it is impossible for competitors to use alternative services or facilities or to duplicate the facility, and to show that the facility is a real bottleneck. Thus, evidence will be needed that setting up an alternative facility is not viable for a firm whose turnover is comparable to the turnover of the firm which is the subject of the complaint.

Finally, it should be remembered that any defence to such claim, i.e. that access is refused because of a reasonable justification, must be established by the company raising the defence and not the authority. It is however for the authority to disprove such a defence where this is raised.

Remedies

Available remedies in such cases include a decision mandating access or continuing with the supply of the service, the imposition of financial penalties, and combinations of the two.

However, the authority needs to be aware that in ordering a dominant company to supply goods or services it could get involved in lengthy proceedings on the terms and conditions that the supply should take place. Where legally possible an option may be for the competition authority to refer the details of such arrangements to a sector regulator that has the resources and systems to establish and monitor these arrangements. If not, it may be necessary for the competition authority to do so. An example of such a situation is the case of Telecom Corporation of New Zealand Limited vs. Clear Communications Limited[76] where following liberalisation of the telecommunications sector in New Zealand, there were prolonged disputes under competition law between the incumbent operator and a new entrant, where the competition authority was called upon to determine, among other things the level of the price of access. Following a series of court hearings it was finally decided that the relevant provisions of the Commerce Act[77] which prohibit the use of a dominant position for the purpose of restricting entry, preventing or deterring competition or eliminating someone from the market, were not breached. In the particular case, the dominant party sought to price access on the basis of Efficient Component Pricing Rule (ECPR).[78]In the courts' opinion this

[76] [1995] 1 NZLR 385 (PC).

[77] S.36.

[78] The ECPR, also known as the Baumol-Willig Rule, is a form of retail minus pricing which sets the price of a monopolized input used in a retail market equal to the vertically integrated monopolist's downstream retail price less any cost savings made by the monopolist due to the competitor's choice to supply some inputs itself. See L. Cabral, *Introduction to*

would yield the same outcome as if a hypothetical company was setting prices in a perfectly contestable market.

Cases[79]

Case 4.2.1. -Mexico- 2001 - Excessive charges and discrimination practice in the Mexican resale market.[80]
A complaint filed by Avantel, Alestra and Marcatel against Telmex referred to: the double charge imposed by Telmex for providing resale services. These charges were implemented through the "Lada Operator Plan (PLO)" offered by Telmex, price discrimination as compared to other commercial clients; restrictions in the provision of resale ports; restrictions in leased links; unjustified failure in such services; and the imposition to use 2 Mbps links (which constitutes a tied sale). The CFC defined the affected relevant markets to be: resale of long distance transmission capacity and access or interconnection services, both with a national dimension. As a result of the enquiry the CFC found that: • Telmex charged twice for the interconnection at the originating location, because the resale rate included both interconnections at the originating and destination cities. Telmex was also applying an additional interconnection charge. • Long distance operators paid a higher price for long distance services (acquired in the resale market) than retail rates paid by Telmex' customers. • Telmex unduly delayed the provision of links and interconnection circuits. • Telmex suspended the provision of links without offering technologically competitive options. The majority of these interruptions occurred in cities recently opened up to competition. • Some cities' transmission requirements were below 2 Kbps, and therefore carriers were forced to acquire spare capacity. However, Telmex did not allow long distance operators to share 2 Kbps links. • Microwave and satellite links were not substitutes for the interconnection service provided by Telmex through its wire network, for resale and interconnection services. • Telmex had substantial power in the relevant markets. The CFC defined the resale market as one of the relevant markets, because the practice was carried out regarding an input used by long distance carriers to provide final long distance services to their customers. Based on these facts, the CFC determined the existence of anti-competitive practices aimed at impeding the competitive provision of interconnection and resale services, thereby reducing the demand by competitors. The CFC therefore imposed a fine and ordered the following remedies: • To unbundle the interconnection rate charged at the originating city from the resale rate and to suspend price discrimination regarding resale services. It did allow Telmex to apply uniform discounts on the basis of volume to all customers, and ordered the application of cost -based rates.

Industrial Organisation, 2000, pp. 78-82.

[79] We do not give full summaries of the cases chosen, many of which involve numerous abuses. Our account is designed to emphasise treatment of the abuse covered in the relevant section of this report.

[80] DE-033-99; this account is based on OECD Policy Round table, *Margin Squeeze*, DAF/COMP(2009)36, 2010, pp. 164-165. D. Sokol Fourth Annual Latin American Round Table On Competition & Trade 2001

• To provide resale ports on time.
• Not to delay or deny the provision of leased links and interconnection circuits, unless technical restrictions are verified.
• To eliminate undue service interruptions, and if these ever occur, it must be proved that they are the result of technical conditions. If these interruptions are a consequence of equipment maintenance, this situation should be forewarned to long distance operators.
• To allow long distance operators to share 2Mbps links and to remove the obligation to purchase these links if the amount of traffic does not justify their purchase.

Case 4.2.2. - Mexico - 2011 -Telmex Refusal to Supply[81]

Federal Competition Commission (CFC) resolved on 1 June 2011 to sanction Telmex with a US$6.9 million fine for committing a relative monopolistic practice consisting of refusing to supply interconnection service to Mexican Telecommunications Group Company (GTM), a subsidiary of Telefonica, for a period of seven months between 2007 and 2008. This treatment of refusal to supply was a violation of section V of article 10 of the Federal Antitrust Law because Telmex had significant market and the conduct and purpose of the act had the effect of substantially impeding access to another economical agent.

The CFC also ruled that since Telmex had reoffended in the past with similar behaviour (case DE-22-2003) the maximum fine for this type of action could be fined twice the normal penalty i.e. 10% of annual sales or 10% of the assets of the company. The CFC decided however that the practice, although serious, merited a penalty substantially less than the maximum because the damage was confined to a small portion of the market (one company in seven local service areas) and that the conduct was over a relatively short period.

Case 4.2.3. - Chile - 2007 - Request against incumbent mobile companies preventing the entrance of MVNO's[82]

SUBTEL (The Telecommunications Undersecretariat) reported to the National Economic Prosecutor (FNE) on 29 August 2006 (Letter N° 39148/G N° 39), that all public service licensed mobile operators had refused to enter into an agreement with every Mobile Virtual Operator MVO.

FNE then made an application before the Free Competition Court (TDLC) that the three mobile companies (Movistar, Entel PCS and Claro) had turned down the applications submitted by the MVNOs, and furthermore had denied access to facilities needed by the MVNO's to offer services for resale, thus restricting competition in the market.

TDLC found (N°104/201) that it was not possible to conclude that the mobile companies' unambiguously acted to avoid or to prevent the free competition and rejected the FNE request. It also found that a

[81] DE-039-2007 Federal Competition Commission of Mexico, Telmex Denying Interconnection Access.
[82] Supreme Court Decision 104_2011.

regulatory definition of the MVNO's lacking.

FNE filed an appeal to the Supreme Court (claim_004_2010) that the regulatory lack of definition related to the MVNOs was at least arguable, pointing to article 26 of the Telecommunications Law N° 18.168, which states that "the telecom licensees could deploy their own systems or to use other companies' systems according their granted licences".

TDFC subsequently pronounced in favour of FNE's application of the need for new entrants without networks in the mobile telephony market (MVNOs), considering the existence of entrance barriers, and had ordered SUBTEL (the regulatory authority) to ensure that "the mobile operators' have an obligation to offer facilities to MVNOs.

It was also argued that all the three companies (Movistar, Entel PCS and Claro) took advantage of their dominant market power, and systematically denied access to infrastructure facilities to MVNOs to prevent them from operating as mobile services providers.

On 23 December 2011 the Supreme Court (decision 104_2011) concluded that the defendant companies, with the purposes of avoiding, restricting and preventing the competition in the mobile telephony market, created artificial entry barriers to MVNOs, and denied the MVNOs in an unjustified way, access to resale facilities, and ordered them to:

1. pay a fine of US$ 2.7 million;

2. submit within 90 days a facilities resale plan offer to the MVNOs, based on objective and non-discriminatory criteria.

3. respond appropriately to the requests of the MVNOs.

Case 4.2.4. - Chile -2005 - Telecommunications Company of Chile S.A. (CTC) restricting Broadband Access for IP telephony[83]

In 2004, the National Economic Prosecutor (NEP) started an investigation concerning the IP telephony contracts signed between "The Telecommunications Company of Chile S.A." (CTC) (now Movistar, the incumbent telephony operator) and several ISPs to offer Wideband Internet Access over ADSL. These contracts included restrictions so that the ISPs could not offer certain services such as VoIP or IP telephony. In 2005, Voissnet S.A., a small company offering such services over Internet, accused CTC of raising barriers and obstacles in the use of bandwidth and Internet access, preventing Voissnet from marketing applications such as IP telephony while protecting CTC's public local and long distance telephony businesses.

In 2005 the NEP intervened in the case and asked the Tribunal of Defence of Free Competition (TDFC) to find, inter alia, that CTC broke free competition by creating artificial barriers to the entrance of new competitors in the local telephony market and to order CTC to modify the contracts so that the clauses limiting the offer of VoIP services were removed and to fine CTC.

[83] TDFC decision Nº 45/2006.

In October 2006 the TDFC determined that that VoIP services were different from traditional telephony and did not need a public service license, internet and telephony services were complementary and could be marketed independently and the contract clauses preventing the use of broadband capacities provided by CTC did not have technical or economic justification. In effect these clauses were there to prevent the offering of a substitute service for traditional telephony. TDFC found that CTC has engaged in restrictive practices in order to prevent the entrance of the petitioner Voissnet S.A. and other potential competitors in the market of telephony services and was fined USD 1.1 million. It was also ordered to modify all the contracts and to eliminate all of the restrictions on bandwidth use for IP telephony or for routing packets between users of internet access services and refrain from applying any such restrictions or impediments in the future.

CTC appealed the decision before the Supreme Court who denied all of CTC's claims except for reducing the amount of fine to US$400,000.

Case 4.2.5. – Peru – 2003 – Complaint of Alfatel against Telefonica for refusal to deal[84].

In September 2001 Alfatel requested Telefónica del Peru (Telefónica) to lease its poles in order to allow Alfatel to offer cable TV services in Huaycan (Ate-Vitarte, Lima). Because Telefonica did not respond either to its initial request or its second request made in November 2001, Alfatel filed a complaint against Telefonica for abuse of its dominant position arising from its refusal to lease poles to Alfatel.

In January 2003, the Ordinary Collegiate Body (CCO) in charge of the analysis of the dispute concluded that Telefónica's refusal to negotiate with Alfatel limited the possibility of entrance of a new operator of cable TV services in Huaycán, which could potentially compete against its related company (Telefónica Multimedia S.A.C.). Therefore, it imposed a fine of US$ 25,000).

Telefónica appealed the decision, and the Court of Dispute Resolution had to decide whether Telefónica had market dominance in the relevant market and to determine if Telefónica´s refusal to negotiate with Alfatel had the effect of lessening competition to the benefit of Telefónica.

The Court of Dispute Resolution confirmed the decision of the CCO, which declared Alfatel's demand as lawful, ordered Telefónica to satisfy the request to lease poles, and confirmed the fine of US$25,000.
Regarding market definition, the Court stated that the deployment of poles by Alfatel or the use of MMDS were not adequate substitutes for the usage of poles of other companies that were already operating in Huaycan (Telefónica, the fixed telephony incumbent operator, and Luz del Sur, the electricity distribution company). The geographic market was defined as the coverage area of the pole network of Telefónica in Huaycan, since Alfatel intended to offer services in that area.

The market had characteristics that limit companies' incentives to compete and the two operating companies showed lack of interest to lease their poles in Huaycán. In consequence, the Court concluded

84 Resolución Nº 019-2003-TSC/OSIPTEL.

that Telefonica and Luz de Sur had joint dominance in the relevant market.

According to the Court, the refusal to negotiate restricted Alfatel's access to an important input for the delivery of services. This fact restricted competition in the market of cable TV services in Huaycán, since it delayed the entry of a new operator. Furthermore, Telefónica belonged to the same group as Telefónica Multimedia, the company that had a licence to offer cable TV services in Lima. This company offered services using the signal conveyance services of Telefónica. Although Telefónica Multimedia did not operate in Huaycán, it is a potential competitor of Alfatel. In addition, the refusal to negotiate prevented Alfatel from strengthening its operations in Huaycán and expanding its coverage to other areas of Ate-Vitarte district, where Telefónica Multimedia did actually operate. Therefore, although Telefónica did not directly take advantage of the refusal to negotiate, it received an indirect benefit since it protected a related company from potential competition.

Conclusion

Refusal to supply cases may appear to be some of the most common cases encountered, in particular, at the early stages of liberalisation of the market. Although one may appreciate the reluctance on forcing a company to deal or supply another, in particular where they are competitors, one should not forget that in most cases the dominant players in telecommunications were granted privileged monopolistic positions. The need for new players to obtain access to these services to be able to provision and offer services in some cases is indispensible (e.g. access to the local loop). Thus competition authorities called upon to intervene in such cases need to keep that balance in mind. Finally, the competition authority must also keep in mind the need to ensure that when mandating access to facilities owned by another firm they must also determine an appropriate price for that service. Too low a price, and the dominant player will not invest in future network developments nor will the new entrants have an incentive to build theirs. Too high a price and new entrants are driven out of the market.

4.3 PRICE AND NON-PRICE DISCRIMINATION

Introduction

Competition law is only concerned about discrimination where it has the effect of lessening or distorting competition. Here, we examine two types of discrimination; non-price related and price-related. Both share certain characteristics that we examine at the early part of this chapter.

What is the abuse?

In the EU, the prohibition comes under Article 102 of the Treaty on the Functioning of the European Union (TFEU) where it makes it clear that:

> *"Any abuse by one or more undertakings of a dominant position …shall be prohibited ...*
> *Such abuse may, in particular, consist in:*
> *…*
> *(c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;*
> *…"*

This covers both non-price-related and price-related discrimination.

A similar approach is taken by Mexico under the Federal Law of Economic Competition (LFCE). Article 10, section X, of the LFCE provides that the imposition of dissimilar selling or buying prices or conditions to buyers or sellers situated in equal conditions is a relative[85] monopolistic practice. The price and non-price discrimination will be deemed illegal if:

- the conduct is performed by firm that possesses substantial (significant) market power;
- the conduct's purpose or effect is to unduly displace other economic agents from the market or to substantially preclude their access to the market or to create exclusive advantages in favour of one or several persons; and
- the benefits to consumers do not outweigh the anti-competitive effects of the conduct.

[85] Absolute monopolistic practices are considered anticompetitive *per se* (meaning that they are always unlawful), while the legality of relative monopolistic practices depends if the economic agent involved in such practice enjoys or not substantial market power in the relevant market, thus these practices are said to be analysed under a rule of reason standard.

This can be contrasted with the USA Robinson-Patman Act 15 USC § 13 – "Discrimination in price, services, or facilities" which is only price related and states that:

> "*It shall be unlawful for any person engaged in commerce, in the course of such commerce, either directly or indirectly, to discriminate in price between different purchasers … and where the effect of such discrimination may be substantially to lessen competition or tend to create a monopoly in any line of commerce, or to injure, destroy, or prevent competition …*"

What is Discrimination?

Non-price discrimination encompasses the application of dissimilar conditions to equivalent transactions with different parties. And it also includes the reverse i.e. the application of similar treatment of dissimilar transactions. The difficulty arises in seeking to identify when the transactions we are comparing are equivalent and when they are different, especially when they may differ in multiple dimensions.

Similarly, even though the definition of price discrimination as '*charging different prices for different units and/or to different customers*'[86] may sound straightforward, the question arises as to what differences can justify price differentiation.

The practical approach is to say that *any* difference in treatment of similar transactions is discriminatory and it is for the company accused of discriminatory treatment to provide evidence of 'objective justification' to justify the differentiation. This approach is adopted in both the EU and the US.[87]

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[86]EAGCP Report commissioned by the EC Directorate-General for Competition. http://ec.europa.eu/dgs/competition/economist/eagcp_july_21_05.pdf.

[87] The EU Commission has stated in its Portuguese Airports decision that '[t]here must be an objective justification for any difference in treatment of its various clients by an undertaking in a dominant position.' Similarly in Aeroports de Paris the European Court of First Instance (CFI) held with regard to the policy of the airport manager ADP that '… the Commission was justified in inferring from the difference in rates of the fees demanded from the ground handlers by ADP that ADP was imposing discriminatory fees, unless it justified that difference in treatment by objective reasons.' The court also held that 'in the event of disparity, it is for ADP to justify the reasons for and correctness of the differences in the rates of fee applied to different ground handlers operating at Orly and Roissy-CDG airports.' The CFI also held in Tetra Pak II as regards Tetra Pak's differential pricing of machines that '[i]n the absence of any argument by the applicant which might provide objective justification for its pricing policy, such disparities were unquestionably discriminatory…'. In the US, to prove price discrimination under the Robinson-Patman Act, one needs to show only a 'price difference' and by law "Upon proof being made, at any hearing on a complaint under this section, that there has been discrimination in price or services or facilities furnished, the burden of rebutting the prima-facie case thus made by showing justification shall be upon the person charged with a violation of this section".

We are not suggesting that any difference should be treated by authorities as discrimination without any further examination. What we are suggesting is that where the authorities have evidence of differential treatment between what appear to be similar customers, where there is no obvious justification for the differentiation, and where such discrimination if proven it would have an effect on competition, then it should call upon the relevant firm to justify the difference objectively.

What are the necessary elements in a case of discrimination?

There are certain basic elements ('a check list") that may be useful to keep in mind when examining a case of possible anti-competitive discrimination.

These are:

- What are the relevant markets?
- does the company accused of discrimination has a strong or dominant position in the market where the alleged discrimination occurred, or in a related one?
- has the dominant company entered into equivalent transactions with other parties?
- if the answer to the above is yes, has the dominant company applied different prices or dissimilar conditions to those equivalent transactions?
- if the answer to the above is yes, does the discriminatory treatment place the other trading party at a competitive disadvantage?
- if the answer to the above is yes, is there an objective justification for the discriminatory treatment?

Normally it is only when the competition authority answers all these questions in the affirmative that the company in question is called upon to justify[88] the differential treatment[89].

It is important to stress that unless the company in question is dominant there can be no question of anti-competitive discrimination. Equally important is the fact that the dominance does not need

[88] Example of such a justification would be to establish that there are differences in the cost to supply the goods, e.g. additional transportation costs, special equipment required etc.

[89] In Argentina under Section 2 of the Competition Defence Law No. 25,156 price and non-price discrimination is prohibited when there are no legitimate business reasons for it. As a result of case law the requirements to establish anticompetitive discrimination include:

- a dominant position is held by the subject of the complaint
- there is no legitimate business reasons for the discrimination; and
- the practice results actually or potentially in the exclusion of a competitor from the market.

to be in the same market that the discrimination is taking place. Quite often in cases of non-price discrimination the effect is on a downstream market from the one that the firm is dominant (e.g. dominance in a wholesale network market and discriminatory treatment in the ISP market).

The next question is whether the company in question has applied different prices or dissimilar conditions to those equivalent transactions. It is not enough that a firm has offered to enter into a contract or intends to do so; the transaction must have been implemented. Competition law (except for mergers) deals with breaches that have occurred in the past or continuing ones.

Non-price discrimination

As mentioned above non-price discrimination is the application of dissimilar conditions to equivalent transactions with different parties or the reverse i.e. the application of similar treatment to dissimilar transactions, with respect to non-price aspects of the transaction. In the telecommunications industry, due to the relation between the network owner and other firms, the issue of non-price discriminatory treatment has always been a serious one. This is why a number of sectoral regulators or competition authorities have sought to deal with it through licence conditions, regulations or undertakings from network operators. However, there are still instances of such discrimination, and for that reason we have seen in recent years steps towards more drastic measures, such as functional or structural separation.[90]

Examples of such non price discriminatory treatment include:

Discriminatory use or withholding of information. This refers to the discriminatory practice whereby the dominant operator on the wholesale market provides its retail arm with information it does not provide to other retailers or refuses to supply other information which is necessary to take up the wholesale offer and to supply the retail service. This may result in the competitor not being able to offer its customers service or being late in the market.

Another aspect of non-price discrimination is the use of delaying tactics, whereby the dominant company supplies goods or services to downstream competitors after it has supplied its own retail subsidiary. This may manifest itself in a number of ways such as long pre-order periods or pretended technical problems. In this way the dominant company can seek to delay entry of competitors or drive customer away from its competitors if they cannot meet new orders in a timely

[90] We do not elaborate on this here, as separation is rarely imposed under competition law. See the symposium on separation in the sector in *Telecommunications Policy*, 34(7), 2010.

manner.

Related to the above is quality discrimination, whereby the dominant firm can either raise rivals' costs or restrict its rivals' sales. The costs can be raised if additional labour or investment is required to offset the quality problems encountered. Or customers will desert a retailer of fixed services if the network operator offers a poor quality of services to its customers, whose call are dropped or whose lines are poorly maintained. [91]

Examples of the above are given in Case 4.3.1 below.

The Italian competition authority, Autoritá Garante della Concorrenza e del Mercato (AGCM), found that Telecom Italia, (the Italian fixed line incumbent) had abused its dominant position by engaging in a number of anti-competitive practices, including non-price discrimination. More specifically, AGCM found that when Telecom Italia tendered for large business customer contracts, it offered significantly better service features than those that its rivals could achieve by making use of the wholesale inputs which they could purchase. The tendering process in the downstream market meant that the terms offered by Telecom Italia to large business customers were not directly observable by the regulator other than by the business customers. Thus, despite the regulator setting the upstream features in the published Service Level Agreements (SLA), it had no visibility of what was being offered. The non-price discrimination was only revealed when the AGCM opened an investigation into other types of abuses.[92]

Price discrimination

Price discrimination "*is a term that economists use to describe the practice of selling the same product to different customers at different prices even though the cost of sale is the same to each of them. More precisely, it is selling at a price or prices such that the ratio of price to marginal costs is different in different sales*".[93] Admittedly the unit costs of supplying different customers may vary, if transport costs are involved or if order sizes are different. These are things that may have a bearing on the different prices to be charged for a product or service. However, it should be kept in mind that in telecommunications, as a matter of public policy, some operators are required to charge the

[91] If the wholesale service in question is subject to a price control under sector-specific law, the telecommunications regulator may be better placed to deal with the problem by way of enforcement of the price control.

[92] See AGCM, Comportamenti Abusivi di Telecom Italia, A351, 16 November 2004.

[93] Richard Posner, *Antitrust Law,* 2nd edn (University of Chicago Press, 2001) at 79-80.

same price irrespective of the cost; for example the cost of a phone call or line rental must be the same in a rural and urban area although the costs are different. Under strict competition law this practice would constitute a discriminatory pricing practice.

Thus when examining price discrimination by a dominant firm, the questions that arise are:

1. whether the service is the same or whether *any price* differentiation is justified in terms of a difference in costs, and
2. whether the *level of differentiation* is justified based on the difference in costs.

Thus it is not enough normally to establish that there are cost differences; one must also establish whether that the level of difference is justified. For example, it may be obvious that bulk buys of traffic minutes have an impact in terms of administration or management costs that could justify a price reduction. However, one must also ask whether the level of the price reduction offered in such cases is justified.

Not all price discrimination is bad, and it is generally accepted that in deciding whether price discrimination is an abuse, it is relevant to consider whether the pricing structure in question allows the efficient recovery of fixed costs and expands demand substantially or opens up new market segments which may be good for consumers. However, this efficient recovery by the firm must not constitute abusive behaviour by being anticompetitive. This is of particular importance in the telecommunications industry, which is characterised by high fixed costs, where customers can be split up into groups according to their willingness to pay, and where groups with low willingness to pay would not buy at all in the absence of price discrimination. Thus price discrimination needs a case by case analysis, and all cases need to be examined on their specific facts.

Price discrimination covers many specific types of pricing behaviour some of which we will examine below. Once again one should keep in mind the check list at the beginning (dominance, actual offer, etc.) when looking at such cases. The most important check is whether the two products or services are the same. From experience one may find that two products that may appear to be the same in reality are not. For example, two leased line services are not the same if one has a service level agreement (SLA) attached to it while the other does not. In this case price differentiation can be fully justified, though the question of the legitimate level of price differentiation will arise again.

Finally, before we turn to look at examples of price discrimination it should be kept in mind that depending on the jurisdiction the authority may have to expressly demonstrate that competition is

distorted. In some jurisdictions, such as the USA, this is not necessary. In others it is.

Examples of price discrimination

Discounts: volume discounts to customers that reflect the lower costs of supplying them in general do not raise competition concerns. However, one should still be careful in examining its structure. In the UK Vodafone offered a volume discount to service providers and resellers of its services was found to have an adverse effect on the market in the way it was structured. It was so steep and discontinuous that a reseller offering services over Vodafone's network could only make a reasonable return if it secured the maximum discount; and this meant that it had no choice but to buy all the services from Vodafone.[94]

The following types of price discrimination would nearly always need to examine more carefully as more often than not will raise concerns:

Loyalty rebates: where the discount is dependent on the customer not taking supplies from competitors. It should be noted that this can be done by either setting targets before the discount is activated; for example for monthly usage or a set level of expenditure, or by agreement between the parties. These can have the effect of preventing buyers from obtaining services from third parties.[95]

Discounts across products: this can take several forms, such as the discount being calculated and applied to products offered in a range of markets including those where the company is dominant and where is not (e.g. call minutes and internet services). Care is needed here in that such discounting can be used by a dominant firm to disguise discrimination in the supply of products in which it is dominant, thus placing its downstream competitors at a disadvantage.

Discounts which are targeted at a narrow group of customers; these are also of concern particularly where the group consists of only those customers who have the ability to switch to alternative suppliers. In most cases it would be difficult for the company to justify the price differentiation for these customers compared to others, in any event.

[94] Oftel case BX/663 141

[95] In Mexico rebates are covered by article 10, section VIII, of the LFCE whereby the granting of discounts or incentives with the requirement of not using, acquiring, selling, marketing or providing the goods or services produced, processed, distributed or marketed by a third party is treated as possible anti-competitive conduct.

Defences against price discrimination

It is for the competition authority to establish the price differentiation and for the company to raise a defence of justified price differentiation. Thus, in addition to the efficiency defence noted above, the two obvious defences in these cases are for the company to demonstrate that either:

- the products/ services are not actually the same (i.e. different specifications) in which case this is not really any more a case of price discrimination, or
- the cost differentiation is objectively justifiable (e.g. as explained above there are demonstrable differences in costs).

Under the USA Robinson-Patman Act,[96] which prohibits price differences applied by "any person engaged in commerce," the law or the courts accept two statutory and one judicial defence to discriminatory pricing. The statutory defences are:

1. "*differentials which make only due allowance for differences in the cost of manufacture, sale, or delivery resulting from the differing methods or qualities in which such commodities are to such purchasers sold or delivered*."
2. the price differentiation was "*made in good faith to meet an equally low price of a competitor*."

In addition,

3. the courts have held that there is no unlawful price discrimination if the lower price is "*functionally available*" to the disfavoured purchaser[97] or if the purchasers that receive different prices operate at different functional levels in the production or distribution chain.

Although it seems to be generally accepted that the differentiation in costs is a justification in such cases, the "meeting the competition" defence specifically identified in USA law is not necessarily acceptable in other jurisdictions and care is needed. For example, under European Union case law a dominant company cannot use the "meeting competition" argument to justify a price which is

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[96] It should be noted though that US courts have concluded that the Act **does not** apply to intangible products such as cellular telephone service and cellular telephone activation service (Metro Communications v. Ameritech Mobile Com., 984 F.2d at 745) or long distance voice telecommunications services (National Communications Ass'n v. AT&T, 808 F.Supp. 1131, 1136 (S.D.N.Y. 1992)). When a transaction involves both the sale of goods and the sale of services, the Act applies "only if the 'dominant nature' of the transaction is a sale of goods."

[97] i.e. the same price is available to that buyer but he fails to take advantage of it. For this to happen he must know of the price and must actually be available to him. An example is the "share of shelf" discount i.e. a discount is given is the buyer gives a prevalent position in the shop and shelving for the goods in return for a discount. This is an acceptable ground for the discount however a volume discount would not be acceptable in that a small buyer would be unable to buy the relevant volumes that would trigger the relevant discount.

predatory.[98]

Gathering the evidence

We have mentioned above the main elements of a discrimination case. Each and every one of them needs to be established by the competition authority before the dominant firm can be called upon to justify the discrimination.

The way the markets are defined and whether the firm has a dominant position are covered elsewhere in the document. We are therefore looking to see what type of evidence one might look for in establishing discrimination.

An obvious source whereby one might look for evidence is any contractual arrangements between the parties. It is possible that the discriminatory practice may not be obvious by looking at the terms of the contract. It may be necessary to examine other correspondence, including emails between the parties (in particular if the customer is relatively new and whether any enticement was offered), and invoices or bills to see whether what is quoted in the contract corresponds to sales. It will also be important to see the detailed description of the goods or services to check whether on the face of them these are similar in nature. Depending on the nature of the complaint one may also need to examine other documents within the company. For example, in cases where the allegation is that the dominant company is providing preferential treatment to its own downstream arm by way of:

- better quality of service;
- speedier rectification of technical faults;
- or providing advance information to its own ISP concerning network changes;

then it would be necessary to examine processes for handling orders, for the rectification of faults, and for notification of network changes.

It is important over time to educate the firms in the industry so that when dealing with one another they maintain proper records, which can assist the authorities in dealing with such complaints. For example, it is helpful if the complainant has properly documented its dealings with the company in that it is a common problem that new players do not formally record complaints filed concerning technical problems and their rectification. Thus when called upon to support their complaint of discriminatory treatment they are often unable to provide adequate evidence.

[98] See chapter 4.4 on predatory prices.

One other possible source of information would be for the authority to make the complaint public, if such disclosure is allowed by law. Publicity concerning the case investigated may bring forward other firms which have also suffered discriminatory treatment, thus providing the authority with additional evidence of the breach.

In cases of price discrimination, in addition to the obvious evidence of price list and contracts, it may be useful to examine bills and invoices. Detailed analysis of usage and charges may uncover cases where there are discounts offered or loyalty bonuses.

As noted, it is for the competition authority to establish a *prima facie* case of discrimination. At that point, it is for the company to provide evidence of objective justification. The company will have to provide credible evidence of the fact that the difference in prices is due to a difference in costs. If the company cannot provide justification for the differential treatment or pricing then the authority can make a finding of discrimination. The company should have the relevant cost information which can objectively justify the discrimination.

Remedies

Non-price discrimination can be difficult to detect and on occasions difficult to monitor. Thus although we tend to see a number of the possible remedies identified below as part of the toolkit of sectoral regulators in particular cases, a competition authority may choose to resort to them too, if the relevant law gives them the power to do so.

Non-price discrimination tools would include a stronger *non-discrimination* obligation known as equivalence *of input* (EoI), which requires the dominant firm to apply equivalent conditions in equivalent circumstances in particular by discriminating in favour of the dominant firm's own subsidiaries or partners. These include supplying on the same "timescales, terms and conditions and by the same systems and processes" - Simply put, retail competitors must get the same product as the dominant firm's own retail business gets.

Cases[99]

[99] We do not give full summaries of the cases chosen, many of which involve numerous abuses. Our account is designed to emphasise treatment of the abuse covered in the relevant section of this report.

Case 4.3.1. - EU – 2011 -Commission Decision Case COMP / 39.525 - Telekomunikacja Polska[100]

In June 2011, the EC imposed a fine on the Polish telecommunications incumbent *Telekomunikacja Polska* (TP) for abusing its dominant position in Poland in breach of Article 102 TFEU. The case involved different types of abuse of dominant position but also raised issues concerning the relationship between the regulatory and competition framework and its joint applicability.

The EC found five main types of abuse of dominant position:

(1) proposing unreasonable conditions governing AOs' access to the wholesale broadband products;

(2) delaying the negotiation process;

(3) limiting access to the network;

(4) limiting access to subscriber lines; and

(5) refusing to provide reliable and accurate general information indispensable for AOs.

This case is a good example of the situation encountered on occasions where the competition authority discovers numerous stand alone breaches vis-à-vis third parties whilst in parallel discovering discriminatory treatment by the dominant firm favouring its own downstream business.

The Commission, in this case, identified three relevant product markets:

(a) the market for wholesale broadband access ('the BSA market'),

(b) the market for wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location ('the wholesale market for LLU'), and

(c) the retail mass market, which is the downstream market of standard broadband products offered at a fixed location, whether provided through DSL, cable modem, LAN/WLAN and other technologies such as FTTx, CDMA, WiMAX, etc.

The relevant retail market excluded mobile broadband services. The relevant geographic market covered the entire territory of Poland. TP was considered dominant because it was the only supplier of wholesale broadband and the local loop in Poland (it had 100 per cent shares in the wholesale markets) and, during the infringement period, it held high market shares in the retail market[101].

The EC found that TP had been abusing its dominant position in the Polish broadband access markets by refusing to give access to its network and supply BSA and LLU wholesale products. The EC found that TP developed a strategy to limit competition on the markets at all stages of the process of accessing its wholesale products. Various internal documents of TP indicate the existence of such a strategy.

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[100] http://ec.europa.eu/competition/antitrust/cases/dec_docs/39525/39525_1916_7.pdf Please note that the case is under appeal case reference T-486/1

[101] In revenue terms, TP's market shares were within the range of 57 % to 46 %. In terms of number of lines, TP's market shares were within the range of 58 % to 40 %. In addition, the presence on the market of PTK (TP's subsidiary) adds to and strengthens the position of TP's Group in the retail market.

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The EC among the breaches discovered that:

I. In the case of the breach of limiting access to TP's network, TP

(a) rejected a high number of AOs' requests on formal and technical grounds (more than 30 per cent),

(b) took an unreasonably long time to implement accepted requests whereas the EC found that that TP could have granted better access conditions because TP's subsidiary, PTK, benefited from network access on terms not available to other AOs.

TP also proposed exaggerated costs estimates for LLU collocation and delayed the implementation of orders and executed certain collocation works with delays. Again the EC found that TP applied better conditions to its subsidiary PTK and cooperated closely with PTK.

II. A similar situation was discovered in the case of limiting access to subscriber lines, TP had also significantly delayed the implementation of AOs' orders for subscriber lines hindered AO's access to subscribers, in particular due to the high number of rejections of AOs' orders on formal and technical grounds. Only PTK, TP's subsidiary, enjoyed a lower rejection rate. TP also significantly delayed the implementation of AOs' orders for subscriber lines. Such delays were mainly caused by a lack of resources dedicated to regulated services on TP's side, lack of experience, lack of a clear interpretation of how the process should be implemented, an unclear division of competences between TP's internal units, and an insufficient IT support.

III. TP did not provide reliable General Information (GI) to AOs which was necessary for them to decide regarding access to TP's wholesale broadband products at specific locations, or provided inaccurate information. In addition AOs were supplied incorrect and incomplete GIs, the data was supplied to them in a format (such as paper or scanned pdf) which was difficult to process, and were not provided with an IT interface enabling them efficient access to the information and the processing of orders. Once again the Commission found that TP provided its subsidiary PTK with supplementary channels of information as well as with additional information which was not made available to other AOs. In this way, the process of obtaining the GI was quicker and cheaper for PTK and led to a reduced number of rejections of orders.

Having reviewed TP's behaviour, the EC found that TP's conduct had the abusive effect of hindering access to the network and was capable of restricting competition in the retail market. This finding was supported by a number of TP's internal documents setting out its strategy to preserve its retail revenues. TP's refusal to supply was likely to reduce the rate of entry and expansion of competitors on the retail market for DSL services. The low number of unbundled local loops was considered to be a revealing indicator of the likely effect of TP's refusal to supply access to its wholesale products, delaying the growth of competition and thereby the development of alternative infrastructures. Similarly, the EC stated that TP's refusal to supply was likely to have a detrimental impact on end-users, which was reflected in low broadband penetration, high broadband prices and low average broadband connection speeds.

The EU decided that TP has breached Article 102 of the Treaty. A fine of US$165 million was imposed and TP was ordered to bring to an end the infringement in so far as it had not already done so and should refrain from repeating any act or conduct having the same or equivalent object or effect.

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Case 4.3.2. – UK- 1996 - The Oftel caller display equipment case[102].

This is a regulatory case, but it illustrates a response to discrimination parts of which may be available to competition authorities. Oftel, the UK telecommunications regulator, issued in June 1996 an order to delay a BT proposed promotion of its Caller Display Equipment in association with a promotion of Caller Display Service.

BT's proposed promotion had two elements: a three month free use of the caller display service and three months free rental of BT equipment, for both of which there would normally be a charge. The promotion appeared to be designed to stimulate service and equipment sales. Oftel received complaints from equipment sellers about the short time between the announcement and the proposed date of introduction of the promotion. The complaint was that the period did not allow competitors in the telephone equipment market to get stock and be able meet increased demand for equipment since the BT proposed promotion period was very short, thereby giving an unfair advantage to BT's own equipment business. As a result of information gathered from BT and other Caller Display equipment suppliers, it appeared to the Director General that BT was in breach of the obligations in its Licence not to show undue discrimination against, or undue preference towards, third parties (including to its own downstream businesses).

In this case BT failed to give sufficient advance notice to competing equipment suppliers of its intended promotion of the Caller Display Service, so that they could prepare their point of sale and promotional material and in some cases, buy in further stocks of equipment to meet further demand.

To ensure that competition was protected the Director General made a provisional Order against BT. The Order required that:

a) BT must not, in any Promotion of any telecommunication service provide, or offer to provide, such service in a manner which unduly discriminates against competitors in particular so as to unfairly favour to a material extent any business (whether carried on by BT or not) in the supply of any equipment for use in connection with the provision of such telecommunication service or Relevant Service as is the subject of the Promotion in question, so as to place at a significant competitive disadvantage persons competing with that business.

b) BT must provide to its competitors (including its likely competitors) who supply or could supply in the United Kingdom equipment, advance notice of any Promotion of an existing service or the introduction of a new service sufficient to give such competitors enough time to prepare promotional material, publicity and stocks to meet any reasonably foreseeable increased demand for equipment resulting from such Promotion.

c) BT must ensure that any promotional material and publicity for any Promotion produced by or on behalf of BT makes clear that the Promotion is not contingent on buying or renting equipment supplied by BT and that equipment may also be rented or bought (if that is the case) from other suppliers.

Conclusion

The principles underlying a finding of price or non price discrimination are more or less universal as are the acceptable defences to a firm claiming that the discrimination is justified. Discrimination

[102] Case reference BX/580/017

over time can easily drive new entrants out of the market and still remain undetected. For this reason vigilance is needed by the authorities. At the same time, competition authorities must also be careful not to fall into the trap of investigating every allegation of differential treatment or pricing where this can easily be justified by differences in circumstances or costs.

The most difficult part of these cases is dealing with non-price discrimination. Different attempts have been made to stop incumbent operators engaging in this behaviour, including splitting the operator up in separate companies or divisions in order to deter discriminatory practices. However, it is still possible to deal with such cases even without such powers provided that the authority is willing both to investigate them speedily and, where it finds such breaches, impose appropriate undertakings (including behavioural and compliance obligations) combined with substantial fines that make it unprofitable to engage in such behaviour. Like with all other abuses the clear determination of an authority to stump it out can be the strongest remedy available to it.

4.4 PREDATORY PRICING

Predatory pricing occurs where the prices charged by a dominant firm are below an appropriate measure of costs and, because there is no reasonable business justification for the low pricing policy or practice, such as selling off perishable products or matching the price of a competitor, the motive appears to be to drive out or weaken competitors and then raise prices. However, predatory pricing can be a risky strategy as the firm involved incurs high up-front losses, with no guarantee of future gains from monopolization. Moreover, if the firm is subject to either direct price regulation or some other form of control, the predatory pricing strategy is unlikely to succeed.

In practice predatory pricing requires high barriers to entry and/or exit, since if firms are able to enter and exit the market with little cost then each time the incumbent increases its price to recapture profits new entrants will be attracted into the market and cause the operator to drop its price again.

In spite of the amount written about predatory pricing, there have been few proven cases in the telecommunications sector. This may be because it can be difficult in practice to distinguish predatory pricing from aggressively competitive below-cost pricing (such as “loss leaders” and promotional activities) and to satisfy the conditions laid down in competition law; or it may be because not many firms find it a profitable strategy.

What is the Abuse?

Predatory pricing involves a dominant firm deliberately setting prices to incur losses for a sufficiently long period of time to eliminate, discipline, or deter entry by other competitors, in the expectation that the firm will subsequently be able to recoup its losses by charging prices above the level that would have prevailed in the absence of the impugned conduct, with the effect that competition is substantially lessened or prevented. The strategy will only be profitable if, once all competitors have been forced out of the market, the incumbent is able to raise its prices to a monopoly level and keep them there for a long enough period to justify the losses.[103]

[103] In Argentina Predatory pricing is specifically prohibited in section 2(m) of the Competition Defence Law No. 25,156 provided that it is proven that the predator is pricing below marginal costs and that, if successful, the predator will be able to increase prices in order to recover losses.

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Legislation, legal precedent or administrative practice in different jurisdictions defines the circumstances a competition authority has to demonstrate in order to prove predation. These include some or all of the following:

- Characteristics of the firms that are subject to possible action – all firms or only certain firms, i.e. dominant firms;
- Characteristics of prices charged, in relation to costs;
- A demonstration of predatory intent on the part of the firm – bearing in mind that all competitive firms have an interest in taking business from rivals;
- A demonstration of whether losses made in the period of low prices are expected to be recouped afterwards.

In the European Union, the competition authority, the European Commission, first determines whether a firm is dominant and then determines if it has engaged in predatory pricing strategies over a relevant time period with the intention of excluding or weakening one or more of its competitors. It is generally viewed that low market share companies are a good proxy for the absence of substantial market power. The Commission's experience suggests if the firm's market share is below 40 % in the relevant market abuse with respect to price based exclusionary conduct – predatory pricing – is unlikely to occur.[104]

To determine predatory pricing the Commission practice based upon a key European Court ruling[105] was to apply a joint test. A price is abusive if:

- It is below average variable cost (AVC), then the price is predatory;
- It lies between AVC and average total cost (ATC) and if the price is part of a plan for eliminating a competitor.

Subsequently in a 2009 document of enforcement priorities, the Commission has favoured a test based on average avoidable cost (AAC).[106]

In the same document, the Commission considers replacing the ATC test with one based on long run average incremental cost (LRAIC). Long run average incremental cost is the average value of all the (variable and fixed but not common) costs that a company would incur to produce a particular

[104] *EU Competition Law Rules Applicable to Antitrust Enforcement, Volume 1: General Rules as at 1st December 2011.*

[105] Akzo Chimie v Commission Case 62/86 [1991] ECRI-3359.

[106] Guidance on the Commission's Enforcement Priorities in Applying article 82 of the Treaty [now Article 102 TFEU], 2009.

product. It is likely to be the most complex to estimate where capital assets are involved, as it is a forward looking approach which may involve revisiting the valuations of existing assets or even 'replacing' them hypothetically with a new 'modern equivalent asset'. Absent significant capital costs, AVC and LRAIC may be similar.

In a similar manner, United States federal law proscribes predatory pricing as occurring where a dominant firm charges low prices over a long enough period of time so as to drive a competitor from the market or deter others from entering and then raises prices to recoup its losses.[107] The US Supreme Court with its 1993 decision in *Brooke*[108] laid out the criteria for judicial analysis of predatory pricing. Predatory pricing requires proof of below cost pricing; although no particular cost test is prescribed, average variable cost is often used. Then there needs to be a reasonable prospect that the predator can later raise prices sufficient to recoup its investment in below cost pricing.

The recoupment requirement, which is not present in Europe, sharply differentiates predatory pricing from other predatory or exclusionary conduct, where the inference of injury to competition is drawn from the exclusionary conduct and market structure. Proof of recoupment requires not only that the below cost price exclude or discipline the victim, but also proof that the predator will be able to raise price above the competitive level (recoupment capability) sufficiently to compensate the predator for its predatory investment (recoupment sufficiency). In examining the facts, the US Supreme Court has made it clear that the recoupment element can be satisfied by showing either that the predatory scheme in fact produced sustained supra-competitive prices, or that it was likely to have caused that result, even if it did not actually do so. Thus, it would suffice to present evidence of the likelihood of increased prices persisting leading to partial recoupment, or simply a less competitive market structure or other market conditions.

Competition authorities usually intervene only when the predatory conduct can be shown to have deliberately weakened or eliminated a competitor which would not have suffered in any case because of its inefficiency. However, distinguishing between competitive and anti-competitive

[107] Predatory pricing is treated under two different antitrust laws in the United States. Predatory pricing is often alleged as a means of attempted monopolization proscribed under Section 2 of the Sherman Act, 15 U.S.C. § 2. It is also the theory employed in primary-line (seller-level) cases brought pursuant to the Robinson-Patman Act, 15 U.S.C. § 13 *et seq*. The Robinson-Patman Act proscribes certain price discrimination. One type involves an allegation that a seller is pricing its products "below cost" in one area while pricing "above costs" in another. The Robinson-Patman Act was enacted in an effort to stem the growth of chain stores in the United States.

[108] Brooke Group v. Brown & Williamson Tobacco, 509 U.S. 209 (1993).

intent is one of the trickiest parts of a predatory pricing case. Under-cutting a rival's prices in order to "steal" its business is a hallmark of the competitive process. This means distinguishing between healthy anti-competitive undercutting in the "grey zone" between say AVC, (i.e. costs which exclude capital costs) and ATC (i.e. variable cost plus fixed cost).

Gathering the evidence

Gathering the evidence will depend to some degree upon which cost test is employed. AVC and ATC can usually be calculated from management or financial accounting data. Where regulatory accounts are required from the sectoral regulator of a telecommunications firm, these will be most helpful. AAC is likely to be close or the same as AVC, as most avoidable costs are variable. Calculating LRAIC is likely to involve either wholesale reconstruction of the firm's own accounts, particularly in the area of asset valuation, or developing and costing a bottom-up engineering model of a hypothetical firm. This is likely to be beyond the resources of many competition authorities, and should not be embarked upon lightly.

Evidence of recoupment, where it is required, can come from observation, if the period of predation has finished. For example, if the high prices which followed the expulsion of one set of competitors immediately attracted another set, then recoupment would not appear to have worked, or the data may suggest that prices rose without any further competitive entry.

Finally, there may be evidence of predatory intent in the files of the operator under investigation. What an authority would be looking for is clear evidence of a concerted plan of predation adopted at the highest levels of the company. This would exclude such things as motivational speeches and presentations to the sales teams, which might, during periods of heightened rivalry, speak of 'whacking' or 'destroying' a competitor; but board papers setting out a costed strategy of, for example, targeting a particular firm's customers with below cost offers with a view to eliminate it would qualify as evidence of intent.

Remedies

Discovery and a fine, and the prospect of further fines if the abuse is repeated, should force a predator to cease its strategy of predation. In jurisdictions where private actions can be taken, the victim can in addition bring an action for damages. A potentially uncomfortable aspect of a successful action against a predator is that it may lead to higher prices. The competition authority can claim to have acted in the long run interest of customers and consumers, but they may not be fully persuaded of this.

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Case[109]

Case 4.4.1. – EU – 2003 – France Telecom v European Commission - Wanadoo[110]

In 2003, the Commission found that Wanadoo had breached Article 82 of the EC Treaty by charging predatory prices for its ADSL services and that this practice restricted market entry and development potential for competitors. In view of the gravity of the abuse and the length of the period over which it was committed, the Commission imposed a fine of €10,35 million. The Commission found that, from the end of 1999 to October 2002, Wanadoo marketed its ADSL services at prices which were below cost. The prices charged by Wanadoo were well below variable cost until August 2001 and in the subsequent period they were approximately equivalent to variable cost, but significantly below total cost[111].

France Télécom challenged the Commission decision through a series of appeals but was unsuccessful. The courts confirmed that method of calculation of the recovery of costs was a complex economic assessment and for that reason the Commission should be afforded broad discretion in selecting the appropriate one. The court rejected the claim that the method chosen by the Commission was static. The Commission decided to take into account the fact that, for subscriptions, the costs and revenues generated by subscribers are spread over a long period of time, in this case it decided to spread the costs of acquiring clients over 48 months[112]. Also the court held that although France Télécom was in favour of the discounted cash flow methodology rather than the method used by the Commission for this case (i.e. the adjusted costs methodology), it did not demonstrate the unlawfulness of using the latter methodology.

Regarding the test of predation, the court confirmed the existing two-fold test:

- prices below variable cost must always be considered abusive and
- prices below average total costs must be considered abusive if they form part of a predation strategy.

In the current case, the Commission furnished evidence of the existence of a plan of predation through the production of internal documents found in Wanadoo offices.

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[109] We do not give full summaries of the cases chosen, many of which involve numerous abuses. Our account is designed to emphasise treatment of the abuse covered in the relevant section of this report.

[110] Final Court Judgment Case C-202/07 P - http://curia.europa.eu/juris/liste.jsf?language=en&num=C-202/07
Commission case - COMP/38.233 — Wanadoo Interactive.

[111] The Commission decided to consider the abuse as starting from the date that Wanadoo started its mass marketing in March 2001. The Commission found that Wanadoo incurred substantial losses up to the end of 2002 and coincided with a company plan to pre-empt entry by competitors in the market for high speed internet access. Wanadoo's market share rose sharply whilst by the end of the period during which the abuse was committed, no competitor held more than 10% of the market and even one of them went out of business. At the same time France Télécom (which owned 72% of Wanadoo at that time) had almost 100 % of the market for wholesale ADSL services for internet service providers was expecting considerable profits from this market.

[112] *"The … analysis,…, concerns the actual recovery of adjusted costs. According to the principle of depreciation of assets, the Commission spread the costs of acquiring customers over 48 months. On that basis, it made a separate assessment of adjusted variable costs and adjusted full costs…."*

It is interesting to note that the court rejected the 'meeting competition' line of defence put forward by France Télécom and held that '*even if alignment of prices by a dominant undertaking on those of its competitors is not in itself abusive or objectionable, it might become so where it is aimed not only at protecting its interests but also at strengthening and abusing its dominant position.*'

Finally the question of whether it is necessary to prove recoupment of losses in predatory pricing abuses arose again and the courts rejected the idea of requiring evidence of the possibility to recoup losses in order to prove predation. However, the European Court of Justice stated that the Commission was not precluded from concluding that the possibility of recouping losses may be a relevant factor in assessing whether or not the practice concerned is abusive.

Conclusion

Predatory pricing cases are encountered comparatively rarely in the telecommunications sector, where incumbents often have the option of engaging in the less expensive alternative of a margin squeeze (see 4.5 below). Competition authorities do however have the benefit of international experience of developing such cases when complaints of predation are made.

4.5 MARGIN SQUEEZE

Introduction

The classic illustration of a margin squeeze occurs when a dominant firm supplies both an input to another operator and competes with that operator in the retail market – see Figure 1. Suppose the 'squeezing' firm charges 8 cents for the input and sells in the retail market at 10 cents. That gives the competitor a retail margin of 2 cents to play with. But if retailing costs are more than 2 cents, the competitor will lose money, and be weakened or even forced to exit the market. Imposing a margin squeeze is thus a foreclosure strategy. It is potentially more profitable than predation, because a predator is forced to sell for a period at below cost. But if a firm conducting a margin squeeze sets a high retail price and protects that price from competition by an excessive wholesale price, it will continue to make a profit throughout.

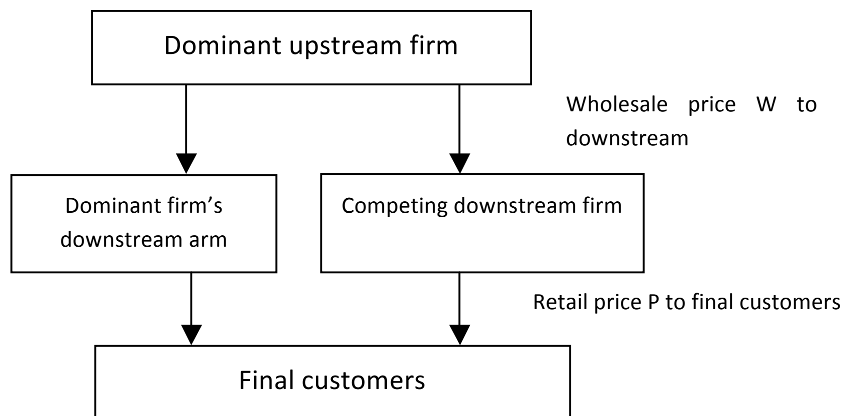

Figure 1. A margin squeeze.

In some competition laws or court judgments, margin squeezes are explicitly condemned. In others, they are dealt with under other headings of impugned conduct. Thus in Mexico, the form of behaviour identified above may be described as discriminatory pricing, or predatory pricing at retail level, or cross subsidization between wholesale and retail pricing. But in practice it is most likely to be prosecuted as raising a rival's costs at wholesale level contrary to Article 10(XI) of the Federal Economic Competition Law.[113]

[113] OECD Policy Round table, *Margin Squeeze*, DAF/COMP (2009)36, 2010, pp. 157-8.

Because telecommunications retailers buy wholesale services from other operators (sometimes reciprocally, sometimes on a one-way access basis[114]), margin squeezes are a real possibility. Consider two examples. In the first, a fixed incumbent rents copper loops to its competitors, and also competes with them in retail markets. If it chooses a configuration of a retail price and a local loop price which gives its competitors an insufficient margin to cover the costs of providing non-local loop inputs into their services, they may be forced out of business.

In the second example, a mobile operator charges its competitors 5 cents per minute to terminate a call from one of their customers. At the same time the mobile operator charges its own customers a retail price of 3 cents a minute to make an on-net call (a call to another customer of the same network). That on-net call also requires the same wholesale input of call termination, for which the operator charges its competitor 5 cents. In this case the margin is negative, as the wholesale input cost 2 cents *more* than the input supplier's retail price. This case differs from the first, because, if one mobile operator can apply a margin squeeze on another by charging more for termination than for an outgoing call, the latter operator can do exactly the same thing with respect to the former. This possibility, and the fact that subscribers have got used to, and relish, the resulting low prices for on-net calls, have meant that competition authorities in Europe and elsewhere have not generally brought actions against mobile operators on margin squeeze grounds.[115] As a result, margin squeeze accusations have tended to be made only in the case of a strongly dominant mobile operator, or avoidance of a squeeze has been introduced as a condition for a merger.

The above account has glossed over several important issues:

- are margin squeezes always unlawful, or are they unlawful only when committed by dominant firms?
- over how large a set of services should a margin squeeze be evaluated?
- when comparing the margin between a wholesale and a retail price with the relevant costs, how should the costs be calculated?

These issues are discussed below. But there is a more fundamental issue at stake. This arises because in the United States, unlike Europe and most other jurisdictions, a margin squeeze is not contrary to competition law. This has been the case since a US Supreme Court judgment in the 2009 *Linkline* case.[116]

[114] See chapter 2.

[115] Instead they have waited for European telecommunications regulators vastly to reduce the regulated price of mobile termination – which many have now done.

[116] Pacific Bell Telephone Company v Linkline Communications Inc 129. S. Ct. 1109, (2009).

This case involved the sale by AT&T of infrastructure facilities allowing its competitors to compete in the market for broadband services. In the *Trinko*[117] discussed in chapter 2, the Court had ruled that the firm whose conduct was impugned had no duty to deal under competition law. In *Linkline* it concluded that the impugned firm had no duty to deal at a particular price (for example, a price which would *not* lead to a margin squeeze); nor was the firm under any obligation to supply a service of any particular quality. The Court noted that a retail sale by AT&T at a predatory price would still be unlawful, but there was no evidence of predation.

This leaves open the possibility that a price squeeze case might succeed in the US in the event that there were a duty to deal in the wholesale service, but - as Coates notes[118] - 'there *is some doubt whether a margin squeeze case could be brought in any circumstances...*'

This outcome runs exactly counter to a 2011 judgment of the European Court of Justice.[119] This concerned a situation in which the Swedish telecommunications incumbent, during the transition from narrowband (dial-up) to broadband data services, voluntarily offered its retail competitors a wholesale broadband product, at price which was found to involve a margin squeeze. The European Court found that, despite the absence of a duty to deal, the squeeze was unlawful. TeliaSonera was then fined US$21 million in the Stockholm City Court.[120]

Before leaving this matter, it is worth noting that in certain circumstances, the finding of an unlawful margin squeeze may appear to lead to adverse consequences for consumers. Thus the squeezing firm could avoid a squeeze simply by raising the retail price to end users, who would then suffer. But if the wholesale price were excessive, then the better outcome for consumers would be a reduction in that price. If this were accomplished a prohibition on a squeeze would additionally protect competition in the retail activity.

Given the complex vertical structure of the telecommunications, it is not surprising that in Latin America as well as in other non-US jurisdictions, much competition authority activity has revolved around margin squeezes. In the next section, we investigate the conditions which are likely to be required to reach a finding that margin squeeze has been performed.

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[117] Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, 540 U.S. 398 (2004).

[118] K Coates, *Competition Law and Regulation of Technology Markets*, Oxford University Press, 2011, p.80.

[119] Konkurrensverket v TeliaSonera Sverige AB (C-52/09) [2011] 4 C.M.L.R. 18.

[120] See http://www.kkv.se/t/NewsPage____7825.aspx

What is the abuse?

A margin squeeze arises when a firm sets prices which generate a margin which is less than the costs of performing the activities which are covered by that margin. In many cases, the squeeze is between a wholesale and a retail service. But it may also be between two wholesale services. For example, the services might be unbundled copper loops and a wholesale broadband access (bitstream) service.[121] To simplify the exposition, it will be assumed in the discussion below that a wholesale/retail squeeze is under investigation, but the account applies equally well to a squeeze between two wholesale products. In this section, we identify the conditions which might allow a competition authority to conclude that a margin squeeze existed and was unlawful.

i) Conditions on the 'squeezing' firm in the upstream and downstream markets

Generally speaking, the conduct of a firm without market power is not of concern to a competition authority. This applies in the case of a market squeeze too. It is therefore a natural condition for a finding of anti-competitive conduct that the firm have a strong (in Europe, a dominant) position in the upstream (wholesale) market, which can then be used to distort competition in the downstream (retail) market. But the same level of market power in the downstream market is not a required condition.

ii) Conditions on the market

If the market is defined very narrowly, an abusive market squeeze might be found even when it had no impact on competition. For example, an operator might set a retail price for a call on a particular route which, measured against its wholesale or interconnection price, left an inadequate retail margin for a competitor. However, that particular route might be too small to attract or repel a competitor, which, if it entered at all, would enter the long-distance market as a whole. An anti-competitive effect only occurs if a squeeze operates over an area which matches a feasible 'arena of competition'.

iii) Choosing the cost test 1: which operator's costs should be compared with the observed margin?

In a surprisingly large number of cases, it turns out that the wholesale price exceeds the retail price, so that the retail margin is negative.[122] This simplifies the demonstration of a squeeze, since however small the costs are, they cannot be negative. In most cases, however, the margin is

[121] In this case, a squeeze would occur if the excess of the prices of bitstream over an unbundled loop were less than the cost of the inputs needed to be added to a copper loop to generate a bitstream service.

[122] See case 4.5.1 below.

positive, so that the retail cost has to be calculated and compared with the retail margin. The retail cost can be defined in one of at least three ways:

- the costs of an entrant;
- the costs of the alleged margin squeezer; or
- the costs of a perfectly efficient retailer.

The last option is virtually impossible to calculate. It is quite likely the retailing costs of a small scale entrant will exceed those of the large scale incumbent. Choice of the latter's costs as a yardstick will probably therefore reduce the permitted margin in a way which will make entry more difficult.[123] On the other hand, adopting the entrant's higher retail costs will, for a given wholesale price, tend to push up retail prices to customers.

There is no obvious correct choice. In the European Union, the General Court of the European Court of Justice in the Deutsche Telekom case discussed below adopted the incumbent's costs as the yardstick. Yet in other regulatory contexts the European Commission has accepted the possibility of choosing among alternatives.[124]

iv) Choosing the cost test 2: which definition of costs should be employed?

The costs of retailing can be defined in terms of

a) the average variable costs of the retail function, or
b) the long-run average incremental costs of adding a retail function to a wholesale business; this is usually equivalent to the value of the costs which in the long run would be subtracted if the retail function were abandoned,[125] or,
c) fully allocated or fully distributed cost, which includes costs directly attributable to retailing, plus a share of common or overhead costs.

The first two a) and b) are two of the cost options adopted in establishing whether costs are predatory – see chapter 4.4 above. The difference between them is that a) includes only variable costs, such as labour and operating costs, while b) also includes investment or capital costs. If the

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[123] If the retail price is 10 and the minimum retail margin is 2, the wholesale price can be as high as 8. If the minimum margin were 3, the wholesale price cannot exceed 7.

[124] Commission Recommendation of 20 September 2010 on regulated access to Next Generation Access Networks (NGA) (2010/572/EU), paragraph 27.

[125] There would be a difference between incremental costs and decremental/avoidable costs if, for example, a licence fee had to be paid to enter the retail market, which was not refunded if retail activity ceased. In this case incremental cost would exceed decremental/avoidable cost.

margin of interest is the retail one, the amount of investment involved may be small, so that difference between them may also be small.

As noted in chapter 2, competition law operates by identifying certain practices as unlawful, and otherwise allows firms to make their own decisions. This is to be contrasted with sector-specific regulation, under which the sector regulator instructs the firm in advance what to supply and at what price. It is in keeping with the more permissive spirit of competition law to grant a firm discretion over how it recovers its joint and common costs, rather than, as in option c), to prescribe it as a price-setting regulator may wish to do, by setting fully distributed cost-based prices. Thus either option a) or option b) is normally adopted.

v) Should the retail costs and retail margin be those in the current year alone or be averaged over a run of years?

This issue can assume importance if the wholesale and retail products in question are new, at the start of their diffusion curves. The problem is that at low levels of take-up, the unit costs of retailing, however measured, may be very high. For example, when demand is very low, the cost of retailing a broadband product may be $25 a month. Normally, a retailer would seek to recover the sequence of unit costs averaged over the lifetime of an early-adopting customer, not the exact unit costs in each time period.

This problem can be resolved by calculating the costs of the retail function in a way which allows averaging the retail margin over a longer run of years, in the course of which the net present value of the margin covers the net present value of costs. This can be a complicated process, especially if there are doubts about the feasibility of the company's business plan. An alternative strategy is to defer the application of the margin squeeze test until diffusion of the new service has achieved a reasonable level. However, this risks giving the incumbent first mover advantages.

vi) Is it necessary to show that the margin squeeze has an adverse effect on competition?

In some jurisdictions, such as Mexico,[126] this is necessary. The position in the European Union is discussed in Case 4.5.1 below.

There is no 'theoretical' correct choice to be made in respect of the matters listed above. Where a country's competition law provides clear guidance as to how the margin squeeze test is applied, the

[126] OECD Policy Round table, Margin Squeeze, DAF/COMP (2009)36, 2010, pp. 162.

way forward for the competition authority is prescribed. In other cases, choices have to be made. Or it may become apparent that the outcome of the margin squeeze test is the same whichever option is adopted. Thus if the wholesale price exceeds the retail price, it does not matter how costs are measured.

Gathering the evidence

The decisions to be made and data to be collected follow a sequence similar to that outlined above, the precise requirements depending on the provisions of the law beginning with identifying the services in the test.

Identifying the services in the test

In the simplest case, there is a single retail product and price, and a single wholesale product and price. But often the situation is more complicated. For example, if the wholesale product is the termination of a mobile call, sector specific regulation may set a uniform wholesale rate which can be charged. However, the retail price of an outgoing national call minute may have to be averaged over prices charged under a range of tariffs. It is even more complicated when the retail service is sold in a bundle (for example, a combination of fixed and mobile telecom services or of telecommunications and broadcast services). If bundle sales predominate, it would probably be necessary to apply the test on a bundled basis – i.e. to compare the retail margin on the bundle with the retailing costs of the bundle. However, in most jurisdictions retail service markets are still generally defined in an unbundled form.

Equally, the wholesale product may be used as an input into several different retail services. This is the case, for example, when a wholesale product such as an unbundled copper loop, is employed to provide both voice and broadband services. This issue arose in the Deutsche Telekom case summarised as Case 4.5.1 below. There the uniformly priced wholesale product was used to offer three downstream retail services (analogue voice, ISDN, and ADSL or broadband) with three different retail access charges. In this case the Court confirmed that the appropriate way to establish the retail margin charged was to compare the wholesale price with the weighted average of the three retail prices.

Costing the margin

The choice of whether to use the incumbent's or competitors' cost is either determined by the law or precedent or at the discretion of the competition authority. The preference for use of the

incumbent's costs in Europe is based partly on the fact that they are likely to be better documented and capable of being estimated by the potential squeezer itself with certainty.

The cost measure – average variable costs (AVC), long-run average incremental cost (LRAIC) or fully distributed costs (FDIC) has already been discussed. From a complexity point of view, LRAIC is likely to be the most difficult to estimate where capital assets are involved, as it is a forward looking approach which may involve revisiting the valuations of existing assets or even 'replacing' them hypothetically with a new 'modern equivalent asset'. Absent significant capital costs, AVC and LRAIC may be similar. FDIC involves allocating common or overhead costs across wholesale and retail activities, which may present difficulties. Taking a snapshot of current costs is simple and appropriate except in a start-up phase of a new service.

In practice, many price squeezes, including those likely to be most destructive of competition, are so egregious that almost any cost test will expose them. Nonetheless, the decision or judgment is likely to contain both a penalty and a clear signal as to how further unlawful conduct can be avoided. This means that, where a competition authority has some discretion in determining the nature of the test, it should carefully consider how its decision will affect future conduct.

Remedies

An operator firm found to have conducted a margin squeeze should expect a fine. The squeeze itself can be remedied either by reducing the wholesale price or by increasing the retail price. A competition authority will not win many friends by achieving the latter outcome, especially if the effect of its action is to increase the retail price of all operators simultaneously.

In order to avoid this outcome, the competition authority should at the least seek to eliminate any obstacles to the option of cutting the wholesale price. This may involve prior liaison with the telecommunications regulator which may set that price. It is also appropriate for the authority pre-emptively to deploy public opinion against an operator's attempt to raise retail prices, instead of lowering wholesale ones.

Cases[127]

Case 4.5.1. –EU – 2010 - Deutsche Telekom AG v European Commission.[128]

[127] We do not give full summaries of the cases chosen, many of which involve numerous abuses. Our account is designed to emphasise treatment of the abuse covered in the relevant section of this report.

This prominent European case had several interesting features. DT was investigated by the European Commission for conducting a margin squeeze involving a wholesale fixed telecommunications product (unbundled local loops, which provide access to a home or business premise) and a variety retail services (access to voice calls, ISDN and copper –based broadband or ADSL) provided to customers on whom a retail charge was levied.

It was an unusual feature of the case that the German telecommunications regulator imposed a control on DT's own retail prices in the market, in the form of a price cap on a basket of retail services, including voice calls and monthly line rental service. The retail price for line rental was not set uniquely; DT had a choice over how much to charge for calls and how much for the line, so long as a total figure was not breached.

It was contended by the European Commission, the competition authority, that the wholesale price of access exceeded the retail price over the period 1998-2001, while in 2002-3 the excess of the retail price over the wholesale price was less than DT's product-specific retail costs.

On appeal, the Court of First Instance rejected the submission that, because the regulator had approved DT's configuration of retail prices, and had set the wholesale price, on the grounds that DT could have chosen a different set of prices which would have avoided the squeeze. The Court also made it clear that the proper cost test was based on the incumbent's costs, arguing that any other approach would be against the general principle of legal certainty, which would be breached if the legality of a firm's pricing depended on a competitor's costs, which the first firm would not know. It also established that the Commission was correct in finding that due to the existence of the margin squeeze alone competition in the market for retail access services was restricted; the Commission did not need to further demonstrate anti-competitive effects.

Further appeals then took place in the European Court of Justice which established that the fact that Deutsche Telekom's wholesale price had to be approved under the national regulatory framework did not absolve Deutsche Telekom of its duty to comply with EU competition rules, and avoid a margin squeeze. The fine was €12.6 million.

Case 4.5.2. – EU – 2012 - Wanadoo España vs. Telefónica.[129]

This case was similar to case 4.5.1., except that it related to a squeeze conducted over the period 2001-06 by the dominant fixed operator in Spain between the wholesale and the retail prices of copper-based broadband. The Commission used the incumbent's costs, as per the DT case, but emphasised the desirability of comparing the margin available to the competitor with costs calculated on a LRAIC basis. The fine was set at €151 million.

In March 2012, the decision and the fine were upheld by the General Court of the European Union.[130]

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[128] Deutsche Telekom AG v European Commission (C-280/08 P) [2010] 5 C.M.L.R. 27

[129] Case COMP/38.784 – Wanadoo España vs. Telefónica;

[130] http://curia.europa.eu/jcms/upload/docs/application/pdf/2012-03/cp120040en.pdf

The two cases differ in the sense that in DT case, the 'problem' was a low retail price, whereas in Telefonica, the Commission noted that retail prices were exceptionally high. This illustrates the fact that a squeeze case only concentrates on the size of the margin, or the 'fairness' of retail competition. An inadequate margin can result from a retail price which is too low or a wholesale price which is too high. These too cases will require quite different accompanying interventions if the aim is to bring prices into some kind of correspondence with end-to-end costs.

Case 4.5.3. - Mexico -2011 - Telcel Interconnection Margin Squeeze[131]

The Federal Competition Commission (CFC) resolved on April 15, 2011 to fine Telcel (Radiomóvil Dipsa, S.A. de C.V), a mobile phone company affiliated with Telmex and a unit of America Movil with a fine of US$910 million for abusing its significant market power to unduly displace its competitors and thus affect the process of competition in markets fixed and mobile telephony, to the detriment of consumers in contravention with incurring a relative monopolistic practice provided for in section XI of Article 10 of Law on Competition. The amount of the fine corresponds to 10 percent of the assets of Telcel which was the maximum penalty under Article 35 of the Competition Act in case of recurrence. Penalty was applied at the maximum in view of the gravity conditions, injury, intent, participation market, and market size, length of practice, repetition and economic capacity the offender, as provided in Article 36 of the Law on Competition. The penalty imposed on the company Telcel was for repeated relative monopolistic practices in the market for call termination in mobile phones with a complaint initiated by numerous operators - Axtel, Alestra, Marcatel, Megacable, Protel and Telefonica - DE-037-2006

CFC determined that Telcel had engaged in margin squeeze by charging fees to other providers preventing them from competing. The Commission determined that Telcel increased the costs of its competitors by imposing an interconnection rate (off-net) that was higher than the prices it charged its end users. It was estimated that problems associated with high interconnection rates in Mexico generated damages of $6 billion each year to customers[132].

The CFC required Telcel to implement a solution to correct or delete the practices and to eliminate the damage to the competitive process and to consumers. In 2011, Telcel appealed CFC's ruling, In April 2012, Telcel dropped its appeal to the ruling and accepted the reduced fee regime through to 2014. CFC has announced it will drop the fine against Telcel subject to the fulfilment of these conditions.

Case 4.5.4. – Chile – 2010 On-net/off-net price discrimination – Margin Squeeze.[133]

[131] Federal Competition Commission of Mexico, Communiqué 04-2011 Interconnection Related Monopolistic Practices. The decision can be found at http://resoluciones.cfc.gob.mx/DOCS/Asuntos%20Juridicos/V45/6/1518064.pdf

[132] Recommendations to promote a regulatory framework favorable to competition in Telecommunications network interconnection, June 2009, OECD, http://www.oecd.org/dataoecd/32/6/45049465.pdf.

[133] NEP report itlc_0001_2011.

CRC América Latina

On December 21, 2010, Fiscalía Nacional Económica (NEP) filed a claim with the Tribunal for the Defence of Free Competition (TDFC) to consider ruling against price discrimination in on-net/off-net tariffs in the public mobile telephone market.

The main NEP concern was price discrimination that could pose a barrier to new entrants whose subscribers would pay more expensive off-net tariffs. These entrants are characterized by low market shares and the differences in rates would be an additional barrier to capturing new customers. Furthermore, TDFC argued there was no real cost-related reason to explain that price discrimination.

NEP in its claim identified measures in order to correct the following distortions which are important to on-net/off- net discrimination:

i) excessive access charges;

ii) inconsistencies between (regulated) wholesale charges and (unregulated) prices to end customers;

iii) on-net/off-net price discrimination without cost justifications.

Accordingly NEP made recommendations to the Tribunal to take the following actions:

1. To allow price differences and volume discounts based solely on costs;
2. To order mobile companies to offer both their pre-paid and post-paid customers alternative tariff plans without price discrimination (either for destination network or time of the day);
3. To forbid promotions for an indefinite period as well as those including a significant amount of on-net minutes in a regular plan;
4. To establish on-net price higher than the mobile access charge;
5. To apply the "Retail Minus" criterion (i. e. to establish a minimum difference between retail price and access charge) between the access charge and the customer final price for tariff plans based on affinity and family connections.

TDFC in its report itlc_0001_2011, concluded the following:

- It was not possible to establish that the on-net/off-net price discrimination is by itself an anti-competitive behaviour for the purpose of hindering new entrance operators, taking into account the complex causality of asymmetry such as the difference between the access charges fixed by the authority and the real costs of using the network to terminate calls; as well as the companies incentives of using their own networks, taking advantage of scale economies.
- A new entrant has higher costs per call termination than incumbent operators, due to the difference between the access charge and the real cost of using the network.
- Implementing measures wholly to eliminate the on-net/off-net discrimination could hinder the creation of new tariff plans, especially those associated with affiliated companies.

Conclusion

Margin squeezes are particularly attractive to dominant telecommunications firms. If successfully accomplished they simultaneously keep profits high *and* exclude or weaken competitors.

As the above account has indicated, bringing a margin squeeze case is quite an intricate exercise. Unless the margin is negative, a costing exercise is required. For this reason, the decision to bring a case should not be taken lightly.

Finally, the competition authority, when deploying its limited resources, has to have regard to the impact on consumers of the relevant conduct. In practice, this may mean consideration of how effective a squeeze is on chilling competition or excluding competitors.

4.6 COLLUSIVE BEHAVIOUR

Introduction

If fixed networks tend to be monopolies, then the mobile market place tends to contain a small number of networks. This is the joint product of regulation and of the demand and supply-side factors which determine market structure. Regulation plays a fundamental role because the authorities typically both license network operators and assign spectrum for the networks to use. This means that regulation and policy play a major role in determining structure. At the same time, these decisions take into account the fact that the cost structure of mobile telecommunications leans towards a 'small numbers' market structure; in other words, the sector seems to be a natural oligopoly. Globally, the trend at present is towards greater concentration, through mergers and acquisitions, and - in some cases - the exit of unsuccessful operators.

Another trend, driven by cost considerations, is the sharing of networks by operators. This may simply be sharing of towers, or it may extend to sharing electronics or even spectrum. We deal with this issue in chapter 4.7.

What is the abuse?

Collusion involves firms working together against the interest of customers, rather than competing and pursuing their own interests independently in a way which, according to economists since Adam Smith, benefits customers. The question of collusion among operators arises both in relation to existing structures and when a merger or acquisition is contemplated. The competition policy analysis is different in these two cases in one important respect. If an existing market structure is under review, the conduct and performance of the relevant firms are the issue, and the analysis is after the fact or *ex post*. If the competition authority is considering a merger proposal, the question is whether a *change* in market structure will create or strengthen market power or dominance or will lessen competition (coordinated effects). The analysis is thus future-oriented, requiring conjectures before the fact or *ex ante* about a different future market structure.[134] These two types on investigations require different approaches, but they can rely upon the same underlying analysis of those factors operating to encourage or discourage collusion.

[134] Sector regulators tend to operate in a third temporal context. They are looking ahead (operating on an *ex ante* basis) but normally within an existing market structure.

Collusion can be either explicit or implicit. It is explicit when operators communicate with each other to agree how to set prices or how to divide up the market.[135] Agreements can be oral or written. The alternative *modus operandi*, known as tacit collusion, parallel behaviour, or co-ordinated conduct, involves firms recognising their interdependence and then behaving in ways which reduce or eliminate competition. A very simple example would be for each of two or three firms charging the same price for a service each to recognise that if it cut that price, the others would follow suit, and as a result, they would all face reduced profits. In certain circumstances, the high prices might be maintained without any communication.

This suggests that the two forms of abuse are similar, or may be present simultaneously. In France the telecommunications regulator published a document questioning whether the country's mobile operators were tacitly colluding by refusing to license MVNOs.[136] Shortly afterwards, the competition authority found that they were meeting regularly to fix special offers and market shares (see Case 4.6.1 below).

From the customer's point of view, the effects of explicit and tacit collusion are broadly the same: high prices, poor quality, and limited innovation. But there is a difference in terms of proof of harm. If firms expressly agree to fix prices or share markets, and the agreements are kept, the case against them is 'open and shut'. In fact, in a growing number of jurisdictions, such conduct breaches criminal as well as competition law. However, proving tacit collusion is more difficult, as shown below. The problem is that, if firms are tacitly colluding over price, we observe that they charge the same. What do we observe if they compete vigorously in a homogeneous market? They charge the same.

As noted in section 2 above, competition authorities can make two types of error. In one, harmful and illegal behaviour is not recognised and punished. In the other, lawful behaviour which benefits consumers is wrongly convicted. It would be an error of the second kind if firms were deterred from engaging in price competition because doing so might lay them open to the charge of parallel behaviour. It is because of such a possibility that care should be taken in the conduct of tacit collusion competition cases.

[135] See the famous quotation from Adam Smith in *the Wealth of Nations*: "People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices."

[136] The operators started to do so, so the claim was withdrawn.

There is a difference in the treatment of collusion between Europe and the United States. In Europe, explicit agreements are subject to Article 101 of the Treaty[137], which prohibits them unless they '*contribute to improving the production and distribution of goods or to technical progress*.' Tacit collusion is caught by Article 102, which prohibits abuse of dominance by 'one *or more* undertakings.' When several firms are operating tacitly in parallel, collective or joint dominance is said to exist. Treatment under separate articles has led to different procedures vis-à-vis explicit and tacit collision. In other jurisdictions, they are treated a more uniform fashion.

In anti-trust cases in the US, the courts permit the fact of agreement to be established by way of circumstantial evidence, but they have required that economic circumstantial evidence go beyond parallel movement in price to reach a finding that the conduct of firms has crossed the line into the realm of potentially violating competition law. The additional forms of economic circumstantial evidence are referred to collectively as "plus factors."[138]

How and where tacit collusion works

Our understanding of the circumstances in which tacit collusion might work has developed in the past years, and this has led to the adoption of competition law principles that are aligned with economic analysis. This focus on likely economic effects rather than on formal or legal aspects of the behaviour has enhanced the beneficial effects of measures against collusion.

The basic approach adopted in Europe is to suppose that each of the following three conditions has to be satisfied for tacit co-ordination to be possible:[139]

- firms need to be able to reach agreement on the terms of their co-ordination and to satisfy themselves that their partners are adhering to it; (This condition is necessary because each firm needs to check if others are departing from the agreement.)
- co-ordination needs to be internally sustainable among the group of firms involved; this means that it must be in the interests of all firms to abide by the agreement; (In particular, if a firm is found to be cheating, it must fear retaliation from others.)
- co-ordination needs to be externally sustainable; this would not be satisfied if an

[137] Treaty on the Functioning of the European Union.

[138] See W Kovacic et al. 'Plus factors and agreement in anti-trust law', *Michigan Law Review*, 110, 2011, pp. 393-435.

[139] These are generally known as the Airtours conditions, because they were first expounded in a judgment in Airtours v Commission Case T-342/99[2002] ECRII-258.

external firm could come in and take business from the co-ordinating group. (Thus co-ordination among domestic firms would not be effective if imports were freely available.)

Now it is necessary to check whether and when these conditions are likely to be satisfied by mobile operators.

According to the first condition, an agreement has to be reached without communication. This is inherently more likely in a 'small numbers' market such as mobile telecommunications. What might be agreed in these circumstances?[140] One solution might be tacitly to agree on prices or market shares. With a proliferation of tariffs, a new and complete agreement on prices might be difficult to accomplish. However, an agreement to keep prices as they are is simpler, and may work if the relationship between the fall in costs and the rate of inflation allows excess profits to be made with constant nominal prices. Alternatively, one operator, or each operator in turn, might raise prices, and then all the others would follow suit. If market shares are the focal point, separate understandings may have to be reached concerning pre-pay, post-pay and corporate customers.

Secondly, each operator must be able to observe the other operators' outcomes in relation to prices or market shares without special communications. Mobile prices are mostly transparent in this way as a result of advertising, except that corporate customers can be offered special deals. Market share data are often published with a short lag by trade associations, commercial services or even regulators. Operators may also make a co-ordinated decision not to allow mobile virtual network operators onto their networks. A decision to do so will be transparent to competitors. It thus seems likely that the first condition is likely to be fulfilled.

Will mobile operators stick to the agreement, as required by the second condition?

This is more likely if they are similar in terms of costs and size. Agreement on a co-ordinated price will be difficult between a firm with high marginal cost and one with a low one. In addition, two firms each with a 20% market share will have difficulty in agreeing a co-ordinated price with a firm with a 60% share, since most of the gains will go to the large firm. In an analysis of collusion a competition authority has to decide on the basis of the evidence which operators are inside and which outside the co-ordinating group?

[140] Or to put it more technically, what 'focal point' might operators agree on?

Co-ordination only works if the operators stick to what they have agreed. This requires a method by which a defaulter can be punished, and placed in a worse position than it would be in if it had adhered to the tacit agreement. If one operator expands its market share contrary to the agreement, others would likely find it in their own interest to cut prices and recapture the lost share. Thus, in mobile telecommunications, this condition is likely to be fulfilled and as a result, all would suffer. It does, however, depend on repeated interactions among the parties. If they were all faced with a single, unrepeatable tender, they would all cheat.

The final condition concerns the existence of operators outside the agreement. A mobile competitor needs access to spectrum. Absent a mobile virtual network agreement (MVNO)[141] agreement, it requires a spectrum licence from the government or regulator. These are not usually readily available. If a small and often financially vulnerable licensed network operator is excluded from the agreement, it may yet chose not to provoke larger operators by significant price cuts, preferring to benefit from the higher prices than to provoke a price war. There are exceptions, however, as discussed in Case 4.6.2 below.

In summary, it is quite likely that the conditions for tacit co-ordination are met in many cases by mobile communications markets in that:

- transparency of tariffs is a feature of the marketplace;
- focal points are available;
- cost structures are broadly similar;
- quite often, the largest operators have roughly symmetrical market shares;
- operators interact via frequent opportunities to set tariffs;
- it is likely to be rational for other players to 'punish' an operator which breaks the tacit agreement;
- there are barriers to entry, some of them (via MVNOs) exercised by the tacitly colluding operators.

Of course, this only shows that in some cases some operators may have the motive and means to collude tacitly. The competition authority has to show (in merger cases) that it is likely to happen, and in *ex post* cases, that it has happened.

Gathering the evidence

[141] See chapter 2.

When collusion is explicit, it must be based on agreements, which, even if they are made orally, were likely to be written down at some stage, for example when the lower level officials who normally make the agreements report by email to their superiors. Operators may be reluctant to rely on fallible memories for such important business agreement, and written records reduce the scope for disputes. As an example, when the French Autorité de la Concurrence investigated a market-sharing agreement among three French mobile operators, they found hand written evidence of agreements, explicitly referring to agreements, including use of the term "Yalta of market share."[142] The concerted marketing policies of the operators supported the direct evidence of a series of agreements. (See Case 4.6.1 below.) Leniency programmes for the first participant to confess can also help to generate evidence.[143]

In the case of tacit collusion, such evidence does not exist. It is therefore necessary to rely on indirect evidence relating to market conduct and outcomes. The scope for evidence gathering differs as between merger cases and cases concerning conduct co-ordinated within a given market structure.

In the case of a merger, there are four possibilities in relation to co-ordinated effects:

- no co-ordination before and after;[144]
- co-ordination before, worsened by the merger;
- co-ordination before, unaffected by the merger;
- co-ordination following the merger.

Evidence of prior co-ordination, based on observations of the type noted below, is therefore relevant. However, absent such evidence, it is still necessary to consider whether co-ordination is more likely to arise following, say, a 'five-to-four' or a 'four to three' mobile merger. This has to be done on the basis of first principles – essentially addressing in the case at hand the features of the market discussed in the previous section. In accordance with the relevant statute, the competition authority then has to decide whether to let the merger go ahead, with or without conditions, or whether to block it. An example of this type of investigation is given in Case 4.6.2 below.

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[142] Yalta was the location of a meeting in 1945 between Stalin, Roosevelt and Churchill which agreed the division of spheres of influence in post-war Europe.

[143] See for example, the Brazilian leniency programme described in Mauro Grinberg, 'Leniency program in Brazil', in E Fox and D Sokol (eds.) *Competition Law and policy in Latin America*, Hart Publishing, 2009, pp. 147-156.

[144] The merger may still have harmful effects via changed conduct by the merged firm.

When co-ordination is alleged within a pre-existing market structure, the amount of conjecture required falls significantly. The task here is to examine behaviour and outcomes, and reach a conclusion. In particular, in the case of mobile communications, the following matters might be investigated:

- *The development of market shares*. These can be tracked over a period of, say 5-8 years, and the degree of stability established.
- *Examination of pricing behaviour*. This is harder than it sounds, because of the likely multiplicity of tariffs, which makes them difficult to compare. A possible way round that is to take typical baskets of consumption – for example, those of a pre-paid or post-paid heavy user, average user and light user - and, using past tariff lists, compare the cheapest price available on all networks. In some jurisdictions, commercial services provide this service, or a body such as the OECD might commission it. As Case 4.6.3 below shows, this might show highly stable prices; or co-ordinated price changes – but bear in mind the alternative interpretation of such parallelism as the mark of a competitive market.

- *The timing of innovations.* Parallel behaviour might extend to innovation as well as pricing.

- *Contracts with MVNOs.* In a competitive market, a network operator would probably think of licensing one or more MVNOs, operating in a different segment of the market than the operator itself. If no network operator has licensed an MVNO, despite reasonable requests to do so, it may be a sign of a concerted refusal.

- *Operator profitability.* If returns to network operators systematically exceed the cost of capital, this may support the proposition that excess profits are being made through co-ordinated behaviour.

Remedies

The penalty for making an explicit price-fixing or market-sharing agreement is usually a fine for the operator concerned; it may be accompanied by criminal prosecution and imprisonment of individuals concerned. Leniency for the first participating firm to reveal the agreement to the authorities has been effective in many jurisdictions in sowing mistrust among the conspirators.

Where the offence is tacit collusion, the same penalties might be available, or they may be limited to fines only. In this case, the authority should be alive to the fact that fear of the penalty may deter

operators from making a normal competitive response to, say, a price cut by a rival. To maintain benefits to consumers, it is helpful if the competition authority seeks to clarify which actions are acceptable and which may lead to an investigation.

Cases[145]

Case 4.6.1. – France 2005 - Collusion among French mobile operators.[146]

On 1st December 2005, the French Competition Authority announced that it had imposed fines totalling US$698 million on three mobile operators: Orange France, SFR, and Bouygues Telecom. Two practices were discovered.

First, between 1997 and 2003, the mobile operators had exchanged every month specific numbers and confidential information on new and cancelled subscriptions. The Council considered that although the data exchanged were not related to pricing decisions that the operators intended to take, information exchanges were likely to reduce the intensity of competition in the mobile market.

In a market with only three players where entry was very difficult, exchange of information of this type was likely to affect the competition, by reducing uncertainty about the strategy of other actors and reducing the autonomy of individual business, especially when - as was the case on the market of mobile telephony from 2000 - the demand growth was slowing sharply. In addition, the Council noted that, these exchanges allowed operators to monitor the agreement they had reached, moreover, about the evolution of their respective market shares.

Secondly, the three operators were found to have agreed to stabilize the evolution of market share between 2000 and 2002. The existence of dialogue was shown in handwritten documents explicitly mentioning an "agreement" between the three operators or the "pacification of the market" or the "Yalta of market share," as well as similarities noted during this period in policies of the operators. This dialogue led to relative stability in the medium term in the shares of the three operators in new subscriptions.

In relation to the practice of exchanging information, the Council took account of the duration the practices (1997 to 2003) and the very large size of the market concerned. The damage to the economy was measured against the duration of the practice (three years) and the very large size of the market concerned. It should be noted also that the agreement took place in a closed market in which no mobile network virtual operator (MVNO) agreement was made by the network operators during the period in question.

[145] We do not give full summaries of the cases chosen, many of which involve numerous abuses. Our account is designed to emphasise treatment of the abuse covered in the relevant section of this report.

[146] Based on a press release issued by the French Competition Authority, available at http://www.autoritedelaconcurrence.fr/user/standard.php?id_rub=160&id_article=502

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Case 4.6.2. EU – 2005 - M.3916 - T-MOBILE AUSTRIA / TELE.RING[147]

The T-Mobile Austria/tele.ring transaction in 2005 involved the takeover of the number 4 in the Austrian mobile phone market (tele.ring) by the market's number 2 (T-Mobile Austria). Although the merger increased T-Mobile Austria's market share to about a third of the market, the company remained smaller than Mobilkom, the largest operator in the Austrian mobile telephony market.

The EC raised concerns that tele.ring may have had a particularly strong competitive impact on the Austrian market given its status as a low price provider and its continuously growing market share nonetheless, the transaction was cleared after T-Mobile offered specific remedies designed to strengthen the market position of smaller players to sell UMTS frequencies to one of them.

The European Commission referred to tele.ring as a "maverick"[148] in that since its market entry it had increased its market share to 12% within 4 years (based on subscribers and considering network operators only). The Commission feared that removing tele.ring from the Austrian market might significantly lower the competitive constraints on the remaining operators.

From the analysis of tele.ring's past competitive behaviour, the Commission concluded that tele.ring was the most active player in the market, exerted considerable competitive pressure and played a crucial role in restricting their pricing behaviour. The analysis therefore suggested that tele.ring performed the role of a maverick (or non-conformist) in the market.

The Commission further analysed the incentives of mobile telephony operators to price aggressively, in particular in order to attract new customers. The Commission considered that the merger would increase T-Mobile's number of customers further and thereby strengthen its incentive to focus on the profitability of its existing customers instead of aiming at attracting new customers. Also the Commission was of the view that after the transaction no other operator could take over the role that tele.ring had played in the past.

The Commission concluded that, due to the elimination of the maverick in the market, it would be likely that the transaction would produce non-coordinated effects and significantly impede effective competition.
To allow the transaction the Commission accepted remedies that would create a player which would likely play a similar role in the market as played by tele.ring' The chosen remedies were to divest two packages of frequencies and to divest a very large number of the mobile telephony sites (including all necessary technical equipment), mainly to a smaller operators. Thus the other small operator (H3G) would acquire the essential parts of tele.ring's network infrastructure so as to be able to build up a country-wide network and to quickly

[147] 2007/193/EC: Commission Decision of 26 April 2006 declaring a concentration compatible with the common market and the functioning of the EEA Agreement (Case COMP/M.3916 — T-Mobile Austria/tele.ring) (notified under document number C(2006) 1695) *Official Journal* L 088 , 29/03/2007 P. 0044 – 0046.

[148] In order to sustain collusion, the coordinating parties need to deviate from the behaviour that would be optimal in the short-run, i.e. given the prices of the competitors it would be profitable to set the price below the collusive level. Mavericks are rivals that do not wish to be part of the coordinating group, due to their corporate culture or for other reasons. The existence of a maverick can prevent other firms from coordinating effectively.

become a full network operator. This would create similar incentives for H3G to those that tele.ring had used in the past to win new customers. These commitments would eliminate the risk of a significant impediment of effective competition on the retail market for mobile telephony services in Austria as regards non-coordinated as well as possible coordinated effects.

Decision: The T-Mobile acquisition of Tele.ring was accepted under the condition that Tele.ring divests frequencies and mobile telephony sites, in order to preserve competition.

Case 4.6.3. – Ireland – 2004 - Investigation of the Irish mobile market. [149]

An investigation under sector-specific legislation of the degree of competition in the Irish mobile market is described in this case. It is not a competition law case, but an illustration of an analytical technique for investigating the degree to which prices in the mobile sector move in parallel. It should be stressed that the regulator made no finding of tacit collusion or collective dominance**.** This underlines the point that the evidence considered can point either to an abuse or to no abuse.

Shares of operators in the Irish mobile market changed considerably in the decade up to 2004. The former monopolist, now Vodafone, quickly lost share to the initial entrant, now O2, but shares then stabilised. The third operator, Meteor, found it difficult to make headway.

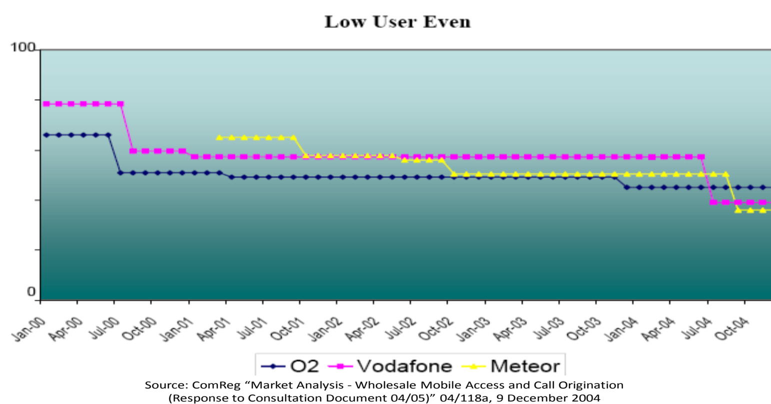

Figure 4.6. Tariffs of three Irish operators 2000-04 for a low user with an equal peak/off-peak call split.

Where there are multiple tariffs, it is difficult to compare operators' price on any date or over time. It can be done, however, by establishing the minimum tariffs which a customer with a 'representative' pattern of demand could get from each of the operators. The figure shows the trajectory of such tariffs over the period 2000-04 available to a low user exhibiting with an even balance of peak and off-peak calls. On the basis of such data, the competition authority then assesses the degree of parallelism and forms a judgement

[149] Commission for Communications Regulation, *Market Analysis: Wholesale Mobile Access and Call Origination*, (04/118a), December 2004

concerning its interpretation.

Profitability data were also collected, with a view to identifying excess returns if any. Finally, it was noted that no MVNO was licensed in Ireland over the relevant period. This may have been due to reluctance on the part of the operators to enter into agreements with potential retail competitors; but it may have been due to the lack of reasonable offers from potential MVNOs.

Conclusion

International evidence suggests that collusion, whether explicit or tacit, is a significant risk in mobile markets. The transparency of prices, the ability of firms to match any price cuts made by another operator contrary to the open or tacit arrangement and the lack of 'outside' competitors all make the practice feasible when the appropriate conditions on symmetry are fulfilled. Leniency programmes can assist in the disclosure of explicit cartels. The demonstration of tacit collusion is more difficult, but not impossible. But care has to be taken not to mistake competitive behaviour for co-ordinated conduct.

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4.7 MOBILE NETWORK SHARING

Introduction

Previous sections have examined instances in which operators (alone or in conjunction with others) might contravene competition laws, acting in ways that are detrimental to end users. Here we examine an area – agreements to share infrastructure between mobile operators – that can be either pro-competitive, for example, facilitating entry, or anti-competitive, for example, facilitating tacit collusion.

In this chapter, we will look at the basis upon which such agreements may be examined; at the different levels of infrastructure sharing that may be involved; and at where one may draw the line between agreements that promote competition and those that may harm it. Sharing of infrastructure may be beneficial to end users and to the wider community because:

- it brings environmental and public health benefits;
- it facilitates fast roll out of network, in particular in remote areas; and
- It yields efficiencies which in due time should result in lower consumer prices.

The European Commission acknowledged cost as a reason for network sharing in relation to 3G mobile roll out, where it stated that within the scope of the legal framework it would consult "*in order to explore concrete means to facilitate deployment of 3G networks and services. The issues to be addressed include inter alia: …*

> *conditions to be met in order to permit network infrastructure sharing, which the Commission considers in principle positively due to its potential economic gains, on the condition that the competition rules and the provisions of other relevant Community law are respected*."[150]

What is the issue?

[150] Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of Regions: *The Introduction of Third Generation Mobile Communications in the European Union: State of Play and the Way Forward* - COM (2001) 141. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52001DC0141:EN:NOT see also the final report at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2002:0301:FIN:EN:PDF

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There are three basic situations in which a competition authority may be called to examine situations that two mobile operators propose to share networks:

- Where by law or regulation, operators are obliged to share infrastructure. In such cases there may still be competition issues for the competition authority to deal with, depending on the source and detail in scope of the obligation. If for example the sharing is the result of sectoral regulation consideration will have to be given to the extent to which the regulation mandates and prescribes the details of the sharing. If the law is very prescriptive there may be no scope for discretion for the mobile operators as to how to act. In such cases, if the competition authority has competition concerns, it may be possible for operators to raise the defence of "state compulsion" i.e. it was something they had to do. In such cases, the concerns would need to be dealt with at the level of the relevant authorities and not at the level of the operators. If however the law simply sets the general parameters for such agreements and there is scope for negotiation between the operators, then it is for the competition authorities to determine if the way the law has been implemented by the operators raises competition concerns or not.
- Where the agreement between the operators goes beyond the mere commercial agreement to share and the resulting transaction is a joint venture, e.g. a separate independent company. In this case, the transaction normally has to be examined under different rules (usually the same as a merger).[151]
- Where the agreement is a commercial agreement between two independent companies that decide to share infrastructure. These are the cases where the parties commercially agree to share parts of their infrastructure. In these cases the authority may typically examine whether the agreement between two competitors has the object or effect of preventing, restricting or distorting competition in the relevant market.

The issue for the competition authority in any particular jurisdiction is choosing which, if any, relevant legal instrument should be applied to a case of infrastructure sharing.

[151] An example is the UK Mobile Broadband Network Limited (MBNL). This is a joint venture management company created by 3UK and T-Mobile (now Everything Everywhere). MBNL is responsible for establishing and managing a new consolidated network of base station sites. Network consolidation involves T-Mobile and 3UK combining their base station sites, hardware and infrastructure to operate a single network. Network consolidation is a form of RAN (Radio Access Network) Sharing. Similar but not legally a joint venture is the O2 and Vodafone joint team called Cornerstone set up 2009 to share their combined UK masts. This works on a different basis from MBNL, as it is a system through which O2 and Vodafone share the physical structures on which their radio equipment is sited, rather than sharing the antennas etc.

What concerns arise from such sharing?

In most jurisdictions there are provisions that deal with anti-competitive behaviour arising from agreements between competitors, the most extreme form of which is the cartel. The legal basis upon which infrastructure sharing agreements between competitors are examined is often the same, simply put, the competition issue in these cases is whether the agreement has an adverse effect on competition or whether the parties involved in the infrastructure sharing agreement:

a) maintain their independent control over important network elements, and
b) remain full competitors without any element of collusion.

It is important to remember that for agreements between competitors to have anti-competitive effects, it is not necessary that either of the parties has market power in a relevant market although such power may be relevant in the analysis to be carried out.

It is unlikely that an infrastructure sharing will have restriction of competition as an express aim. As in most cases the competition authority needs to carry out the necessary economic analysis to determine if the agreement will have such an effect. The areas of concern arising from infrastructure sharing that one needs to be aware of include:

- a reduction of infrastructure/ wholesale competition,
- possible foreclosure of other operators, and
- downstream services competition becomes affected as upstream wholesale activity becomes a contact point to initiate tacit collusion/ spill-over effects, thus weakening competition.

Infrastructure competition, where operators have two discrete and independent networks, is a stronger form of competition than the access or service-based competition represented by mobile virtual network operators (MVNOs). This is because service providers take as given the network and its costs, and compete primarily in terms of retail cost and customer service factors. Competing infrastructure networks compete across the whole value chain and can differentiate their networks. This may in turn inhibit innovation in the ICT sector, as reduction in the number of competing infrastructures may result in the use of fewer technologies by all operators. This sharing may reduce innovation both at hardware/software level as well a at new retail product/ services level. [152]

[152] In addition, although a policy consideration rather than a competition one, the absence of alternative networks may also have an impact on network security for the country; i.e. if there is a problem on one network, as a result of a fault there may be no alternative network for users to rely upon.

Another area of concern is where the agreements provide for exclusivity between the contracting parties, thus ruling out third parties. If this is permitted, and depending on who the parties are (e.g. if one had already the widest coverage because of previous monopoly position), it could lead to the exclusion of other operators which may find it difficult to find their own sites and compete with the network sharers.

The final and most intractable problem is the so called “spill-over” effect of such an agreement. It is possible that the infrastructure sharing agreement could spill-over into an understanding resulting in less aggressive competition or even collusion between the operators in downstream retail markets. In response to a proposal for sharing, the UK authorities wrote that:

> “*Such effects could arise informally, facilitated by the agreement e.g. from the co-ordination of network arrangements, the closeness of the relationship between the operators and the recognition of common interest in reducing retail competition. Tacit collusion can be assisted where one competitor has a credible threat that it can retaliate quickly and effectively by “punishing” the other if it competes vigorously in the retail market. These threats can then act as a deterrent, such that the result is weakened competition. It is conceivable that infrastructure sharing could facilitate such behaviour, by making each operator dependent upon the infrastructure of the other*”[153].

Different levels of infrastructure sharing

Interest among operators in sharing infrastructure has grown as a result of the economic downturn, the rising cost of obtaining spectrum and building new 3G and 4G networks, and increasing environmental and public health concerns about the proliferation of mobile sites. Operators have valid public policy and commercial reasons for sharing that cannot be ignored. However, as indicated above, the sharing of infrastructure raises competition concerns that need to be balanced with these legitimate goals.

In fixed networks, infrastructure sharing has taken different forms, some of which have been mandated, for a number of years. These include the reselling of fixed lines, local loop unbundling, bitstream access etc. This was not normally adopted in the mobile sector, where networks could more easily be duplicated.[154]

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[153] UK response in relation to the O2/T-Mobile 3G infrastructure sharing agreement, case COMP/C1/N.38.370. Oct 2002

[154] See chapter 2 above.

Usually mobile network sharing is classified under two broad headings:

- **Passive Infrastructure sharing -** is the sharing of non-electronic, civil engineering elements of the telecommunications network. This includes right of way, ducts, masts, trenches, towers, equipment rooms and their related power supply, air conditioning etc.
- **Active Infrastructure sharing -** is the sharing of the active network elements or the intelligence in the network such base stations and nodes for mobile networks, transmission links, home location registers, which, in combination with a spectrum assignment generates the mobile service.

Although the approaches taken in the US and within the European Union differ, in principle the sharing of passive elements generally does not raise competition concerns, while the sharing of frequencies or core network components (i.e. active network elements) will generally be regarded as problematic.

For example, both the US Federal Communications Commission (FCC) and the European Commission encourage sharing of "masts, antennae, towers and supporting constructions" irrespective of the market power of the parties. However this is not the case with the active elements of the network. In two European cases cited below the Commission found that site sharing between mobile operators did not restrict competition, in that the cooperation extended only to basic network elements and the parties retained independent control of their core networks including all intelligent parts of the network and the service platforms that determine the nature and range of services provided.

Thus the Commission decided that national roaming, which involves the provision of call services at the wholesale level between mobile operators restricted competition at the wholesale level, with potential harmful effects in downstream retail markets because:

a) extremely high, if not absolute, barriers to entry at the network level due to frequency scarcity, licensing requirements, and the level of investment prevent any form of new market entry;
b) roaming undermines infrastructure-based competition since it significantly limits competition on coverage, quality and transmission speeds;
c) such sharing reduces the scope for price competition at the service level since the operators face similar underlying costs and are prevented from differentiating their

customer offerings on the basis of price or quality.

European competition law allowed the Commission to exempt such agreements if the detriments were outweighed by the benefits. Whether it would decide to do so will depend on the evidence.

Gathering the evidence

The collection of relevant evidence may be slightly easier in these cases than in others. The number of mobile operators, their coverage areas, their relative positions in the market, and so on, are normally easily discoverable by competition authorities from available statistical data. The nature of the agreement, its terms and conditions and the details of what is to be shared should be described in detail in the agreement between the parties. It may therefore be easy to identify, with technical advice in some cases, whether the elements to be shared fall within the active or passive parts of the network.

It is important to check whether there is any element in the agreement that may lead in collusive behaviour. This might include retail pricing obligations and exchange of data between the operators going beyond what is necessary for purely network security reasons. Finally, the authorities need to know whether, during the meetings to discuss network sharing, the discussions risk straying in other areas which may lead to collusive behaviour. This is particularly a danger where technical meetings are attended by commercial personnel who are responsible for the planning and launching of new products and services.

The Body of European Regulators of Electronic Communications (BEREC), which brings together the telecommunications regulators within the European Union, has identified some non-exhaustive criteria that could be considered when looking at such agreements.[155] These include:

- "*whether sharing agreements are unilateral (one operator agrees to provide access to another), bilateral (two operators agree to provide mutual access) or multilateral (several operators agree on terms on which they will provide access to each other),*
- *the geographic scope of the sharing agreement (one site, several or all sites in a certain region or the territory of a Member States, international),*
- *the impact on the competitive situation in the concerned markets before and after the sharing agreement (does the agreement affect important competition parameters such as coverage, prices and network quality?),*

[155] BEREC-RSPG report on infrastructure and spectrum sharing in mobile/wireless networks – June 2011.

- *whether the operators involved in the sharing agreement keep their independent control over the radio planning and the freedom to add sites,*
- *whether the operators are enabled to conclude similar agreements with other parties (no exclusivity clauses),*
- *whether it is ensured that the exchange of information between the parties is limited to what is strictly necessary for the purpose of the sharing agreement and does not extend to the exchange of confidential business information.*
- *whether the operators retain the ability to differentiate themselves in terms of prices and quality and variety of services;*
- *whether the independence of a network operator is prejudiced (where the emphasis would be on avoiding collusive behaviour)."*

Remedies

In light of the nature of the issue the possible remedies that may be considered by an authority include:

a) outright prohibition of the agreement,
b) conditions being imposed; these might take the form of requirements to separate out the shared assets or services or make other modifications,
c) partial approval, allowing sharing of only those elements that do not raise competition concerns.

We are not concerned here with other possible remedies that may be considered where the host network is also dominant, or with non-discrimination issues.[156]

In all cases the remedies available will depend on the scope of powers of the authority. For example there have been cases in the past where authorities did not have the power to impose structural remedies such as structural separation and as such these options where limited.

As noted above, cases of passive infrastructure, assuming the rest of the terms and conditions are acceptable should not normally cause competition concerns and, if subject to notification, such agreements may obtain the necessary clearance.

In the cases of active infrastructure sharing the authority can consider whether to limit the length of

[156] See chapter 4.3 on discrimination.

period over which the agreement will apply, if for example the aim is to allow a new entrant to be established. It can require safeguards to allow other operators also to have access to the same sites if there are concerns that they may not be able to install competing infrastructures due to planning laws. As far as the intelligent elements of the network are concerned, it may be appropriate to prohibit sharing but to require that both parties install and run independently their own elements so as to remain as competitors.

Finally the authority may need to be satisfied that there are appropriate safeguards in place so that the exchange of information between the parties is limited to the absolute minimum (e.g. technical information) and that no commercial issues relating to services, pricing, and so on are discussed between the parties. In one case it was suggested that the compliance plans of these operators might be subject to independent scrutiny from time to time. This might be a further appropriate remedy.

Cases[157]

Case 4.7.1. – EU – 2020 - Germany T-Mobile and O2[158] & UK O2 and T-Mobile[159]

In 2002, the European Commission received two applications from operators proposing to share their 3G networks. The applications were in relation to Germany (T-Mobile and O2) and in relation to the United Kingdom (T-Mobile and O2)[160]. The German agreement provided for site sharing, sharing the radio access network (RAN), and national roaming. In the UK, they agreed to site share and to roam on each other's respective networks where there were coverage gaps, and to site share on the basis of a common radio plan and in remote areas. They also agreed that they would, in the future, roll-out their networks based on a common plan.

The Commission found that there were two directly affected markets in both cases. First, the market for sites and site infrastructure for digital mobile radiocommunication equipment and secondly, the market for wholesale access to national roaming for 3G communications services. Markets for wholesale access to 3G services as well as downstream retail markets for 3G services were also affected but only indirectly.

[157] We do not give full summaries of the cases chosen, which involve many aspects. Our account is designed to emphasise treatment of the matters covered in the relevant section of this report.

[158] Case COMP/38.369: T-Mobile Deutschland/O2 Germany: Network Sharing Rahmenvertrag, OJ 2004, L 75/32.

[159] Case COMP/38.370: 02 UK Limited / T-Mobile UK Limited: Network Sharing Agreement, OJ 2003, L 200/59.

[160] The decision in relation to national roaming in Germany was appealed successfully at the CFI **(**O2 (Germany) GmbH & Co OHG v Commission of the European Communities (Case T-328/03)) however, as national roaming is not really network sharing but use of each other's networks to provide services to their own customers we have not examined this in any detail.

The legal question was whether the agreements were likely to have negative effects on competition not only because of the nature of the agreement but also because of the economic context, such as the market power of the Parties and other factors relating to market structure in relation to the relevant markets defined and that were directly affected by the agreement.

In relation to the UK agreement, the Commission considered site sharing as already commonplace on an ad hoc basis, and while *"facility sharing can be of benefit…"* it may still have an adverse impact on competition. In particular, by reducing network competition by denying competitors access to necessary sites and site infrastructure, therefore foreclosing competitors and, in some cases, possibly facilitating collusive behaviour. Where the site sharing agreement covered 'passive' components of the network, such as the aerial support structure, base station (Node B) cabinets, cooling and power supply it was considered to be limited impact due to the network elements involved and the parties retained their independent control of the key components of their access networks, as well as their core networks which determined the nature and range of services provided. The use of the Radio Access Network ('RAN') for sharing could increase the risk that the parties would have a significant level of costs in common which could facilitate the coordination of market prices and output. However, given the limited extent to which the network components were shared by the parties, the level of common costs arising from the site sharing was likely to be low. Thus, the Commission concluded that the scope of the site sharing was limited this particular aspect of the site-sharing arrangement did not raise competition concerns.

In relation to the risk arising from sharing information the Commission stated that there was a presumption that the exchange of commercially sensitive information between competitors is prejudicial to effective competition as it may reduce market uncertainty and may facilitate collusive behaviour. In the particular cases, information exchanged between the parties could be considered as business secrets but as it was primarily of a technical nature and it did not allow one party to understand the overall competitive strategy of the other party. The parties had also introduced safeguards including (i) a term prohibiting the exchange of information on the pricing of products and services, product development and launch plans, and (ii) they had undertaken to ensure that all employees engaged in the implementation of the project would be provided with appropriate guidance as to relevant competition law, confidentiality and regulatory issues and obligations. Although it was suggested that an independent audit of the confidentiality safeguards may be appropriate, the Commission decided that in this case this was not necessary.

The Commission's conclusions were that the parties, in so far as infrastructure sharing was concerned, retained independent control of their respective networks, including the critical core network, as this was limited to passive components of the access network. They also retained the ability to differentiate their services downstream since the level of common costs brought about by site sharing was not significant and retained control of the core network and service platforms that determine the nature and range of the services provided. Thus although the agreement did have in some respects an adverse effect on competition under EU law it could be exempted as certain conditions were met.[161]

[161] The EU tests for exception are whether the agreement (i) contributes to improving production or distribution and promoting technical or economic progress, (ii) there is a fair share of the benefits resulting from the agreement to consumers, (iii) it is indispensible and (iv) it does not eliminate competition in respect of a substantial part of goods and services concerned.

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The parties to the German agreement challenged the case in court on the aspects of the decision relating to roaming in that the Commission concluded that the national roaming arrangements between the parties restricted competition. Although the case related to roaming the Court comment would be relevant in similar cases in that as it stated in its judgment the examination of these cases consisted essentially in taking account of the impact of the agreement on existing and potential competition, and the competition situation in the absence of the agreement with those two factors being intrinsically linked. The examination of competition in the absence of an agreement "*appears to be particularly necessary as regards markets undergoing liberalisation or emerging markets, …, where effective competition may be problematic owing, for example, to the presence of a dominant operator, the concentrated nature of the market structure or the existence of significant barriers to entry*."[162]

Case 4.7.2 – Denmark - Radio Access Network sharing agreement between Telia Denmark A/S and Telenor A/S[163]

On 29 February 2012 the Danish Competition Council (DCC) cleared a case concerning a horizontal production agreement in the mobile telecommunications sector subject to conditions. Telia Denmark and Telenor A/S planned to implement a network sharing agreement via a joint venture, Newco, by which they will jointly own, control and develop the RAN (Radio Access Network)-infrastructure[164] needed for their respective businesses. The purpose of the agreement is to optimize their respective businesses by obtaining efficiency gains, i.e. cost reductions and the creation of a better network in terms of better coverage and technology.

The DCC found that the network sharing agreement did entail a better and more efficient network for Telia's and Telenor's individual businesses by improving coverage and availability of technology of and in the parties' respective networks that is beneficial to the consumers. The DCC found that the parties' agreement could infringe competition law provisions in that the cooperation agreement may have an anti-competitive impact on the market for access to sites (for mobile antennas), the wholesale market for mobile telephony and mobile broad band, the retail market for mobile telephony and mobile broad band and finally a market for purchase of frequency licences.

The DCC had identified the following anti-competitive concerns:

1. The agreement could increase the risk of a collusive outcome on the wholesale market for mobile telephony and mobile broadband.
2. The tariff structure initially chosen by the parties to recover the joint venture's costs from the parties could

[162] In this case working on the assumption that O_2 was present on the mobile communications market, the Commission had not considered in more detail whether, in the absence of the notified agreement, it would have been present on the 3G market.

[163] http://www.kfst.dk/en/service-menu/press/presse-2012/radio-access-network-sharing-agreement-between-telia-denmark-as-and-telenor-as/radio-access-network-sharing-agreement-between-telia-denmark-as-and-telenor-as/

[164] The parties would not share the "intelligent" part of their respective mobile networks.

change the underlying cost structure of the RA network compared to the situation before the agreement in a way that converts fixed costs into variable costs. This can reduce the parties' incentives to compete and attract new customers.

3. The parties could obtain a joint amount of frequency resources that in the long term significantly exceeds that of the competing operators.

4. The parties would reduce the number of antennas and masts in their common RA network, which could create coverage problems for competitors that rent antenna positions on the parties' masts.

5. The agreement increased the risk of exchange of commercially strategic information that exceeded the sharing of data necessary for the joint production of the goods subject to the network sharing agreement.

6. The agreement reduced competition on significant parameters such as coverage and the development and spread of new technology (LTE, LTE-Advanced).

The parties submitted commitments which solved the first five concerns mentioned above.

Re concern no. 1, the parties would accept all requests from wholesale customers to buy mobile telephony and mobile broad band on customary and market conditions.

Re concern no. 2, the parties would pay the commonly owned joint-venture for its supply of Radio Access-capacity according to a tariff structure that at all times reflects the underlying cost structure of the RA network.

Re concern no. 3, in the future the parties would be obliged to buy frequency licenses in common (through the joint venture) so as to prevent a situation in which the parties buy spectrum separately and afterwards pool the obtained frequency resources in the joint venture, thus gaining access to an overall larger amount of spectrum.

Re concern no. 4, the parties are obliged to sell or let the antenna sites that prove to be superfluous to any interested player on the market. Re concern no. 5, the parties adopted a set of restrictions regarding the appointment of the members of the Board of the joint venture, the employment of the Management and employees of the joint venture, the information that may be exchanged within the joint venture and between the joint venture and the parties, etc.

Regarding concern no. 6, the DCC found that as the parties had provided sufficient proof that the conditions set out in TEUF article 101 (3)[165] and the corresponding article in the Danish Competition Act are fulfilled, there is no ground for action on this point.

Conclusion

The importance of environmental and public health reasons, fast roll-out of network and efficiencies resulting in cost reductions cannot be underestimated by public authorities. These are crucial reasons for promoting or at least not hindering the sharing of network elements between competing operators. However, it is for the competition authority to ensure that the positive results, of say sharing a mast, do not lead to collusive behaviour or outright cartels. We have sought to provide some indications of the elements of such agreements that authorities need to be

[165] This is the condition in the EU treaty that exempts agreements from its prohibition if they meet certain criteria (improving the production or distribution of goods or promoting technical or economic progress).

concerned about and which can provide operators some transparency of the level of cooperation that may be permitted. Like all other issues identified above the authority must analyse the details of the agreement (those which are express or result by implication) and must decide where to draw the line between beneficial sharing and anti-competitive abuse.

5 MERGERS AMONG TELECOMMUNICATIONS OPERATORS

Introduction

In this section prospective mergers are examined from a competition perspective. The EU,[166] the US[167] and certain Latin American jurisdictions as examples are reviewed to identify important issues in handling and deciding such cases, with particular emphasis on transactions involving mobile operators.

It is acknowledged[168] that transactions leading to the restructuring of the communications industry can be beneficial if they enable companies to rationalise and achieve economies of scale that are necessary for them to be competitive. However, not all mergers have positive economic benefits and some may result in the anticompetitive creation or strengthening of a dominant player, thereby jeopardising the maintenance of effective competition. When examining a prospective merger the authorities are called upon to balance these two issues. What makes this balancing act more difficult is the fact that unlike "normal" competition cases whereby the law is applied retrospectively, i.e. looking at past conduct, in the case of merger control this is applied prospectively, i.e. looking at the possible future conduct and role in the market of the merged company.

Merger control consists in basically answering two questions:

a. does the proposed transaction pose a threat to competition, arising from the conduct of the combined entity alone or from coordinated interactions by the firms in the market following the merger?
b. if yes, can that threat be eliminated, or at least reduced?

The threat can be eliminated either by prohibiting the proposed merger or by imposing conditions.

166 At EU level the principal legislative instrument for the application of competition in the case of a merger is the EC Merger Regulation supplemented by series of other instruments (Council Regulation (EC) No 139/2004 of 20 January 2004 as amended). It should be kept in mind though that the application of EU as opposed to national rules is a matter of jurisdictional tests and as such a transaction may come to be examined by either the EU or the local authorities.

167 In the US Section 7 of the Clayton Act, enacted in 1914 and amended in 1950, is the principal US antitrust statute governing mergers and acquisitions. Section 7 prohibits acquisitions of assets or stock where 'the effect of such acquisition may be substantially to lessen competition or to tend to create a monopoly'. Transactions may also be challenged under section 1 or 2 of the Sherman Act as unreasonable restraints of trade or as attempts at monopolisation. The Federal Trade Commission (FTC) also has the authority under section 5 of the FTC Act to challenge a transaction as an 'unfair method of competition'.

168 See the 1991 competition guidelines issued by the European Commission (*Guidelines on the application of EEC competition rules in the telecommunications sector* (1991/C 233/02).

Which transactions are caught by the M&A rules?

A merger or acquisition is broadly defined in order to ensure that all transactions that could cause competition concerns can be examined and if necessary controlled by the authorities. From the competition authority's' point of view the definition should allow it to intervene in appropriate cases, but the parties' goal may be to put their transaction outside the M&A rules, thus exempting them from the merger approval process.[169]

The generic term used for transactions caught by the Merger Regulation under the EU rules is "*concentrations*". Concentration is deemed to arise:

- when two (or more) previously independent undertakings[170] combine in a full legal merger; i.e. when two entities merge to create a new entity or when two entities are subject to common economic management; or
- when one or more undertakings "*whether by purchase of securities or assets, by contract or by any other means*" acquire direct or indirect control of one or more other undertakings; this catches acquisitions where two or more parties jointly acquire a business from a third party.

In Chile, Decree Law 211 of 1973 which establishes the legal framework for anti-trust matters provides for the review of any concentration transaction, including horizontal, vertical and conglomerate transactions, to the extent they could prevent, restrict or hinder free competition or tend to produce such effects.

In Mexico the Federal Economic Competition Law defines a concentration as any merger, control acquisition or any act resulting in the concentration of companies, including trusts, shares or assets in general among competitors, suppliers, customers or any economic agents.

In the US, the Hart-Scott-Rodino Antitrust Improvements Act of 1976 (HSR Act), which was enacted to give the federal agencies responsibility for reviewing the antitrust implications of mergers and acquisitions, can apply to any kind of transaction that involves an acquisition of assets or voting securities. The term '*assets*' is not defined in the HSR Act but the approach taken is similar to that of

[169] But possibly subject to a different set of rules e.g. examination of an agreement.

[170] It should be noted that the term undertaking under EU law has a wide meaning and includes any entity carrying out activities of a commercial or economic nature.

section 7 of the Clayton Act. Thus it includes acquisitions of both tangible and intangible assets. '*Voting securities*' include any security in a corporate entity that either currently entitles the holder to vote for the election of directors, or is convertible into such a security.

Procedures

The procedures for clearance of a transaction can generally be broken down in four stages:

i. notification – where the parties inform the authorities of the proposed transaction;
ii. initial examination – the stage where based on the information available the authorities examine if the proposed deal falls within the meaning of a merger and whether it raises serious competition concerns; this can lead directly to a decision;
iii. detailed examination – where cases raising complex issues and/or serious competition concerns are examined in detail with a view to deciding whether to allow the merger to go ahead or not;
iv. decision – the "final" step – subject to court appeals – where the transaction is given approval – with or without conditions – or is prohibited.

It should be kept in mind that the vast majority of cases are normally dealt with following the initial examination stage and there is no need to go to the detailed examination stage. However the basic analytical framework upon which the decision is made, following either stage, remains the same.

Notification

The aims of the rule requiring a prior notification of a transaction are to ensure:

a. that the appropriate authorities become aware of the transaction and can review it, and
b. the review takes place before the transaction is consummated, allowing the authorities to prevent the anticompetitive effects of a merger taking effect and to avoid the need to unwind a completed deal.

In most jurisdictions there is an obligation to notify the transaction[171] prior to it being implemented but this is not always the case. In Mexico for example although control is not a defined term, the Federal Economic Competition Law regulation has the following provisions:

[171] In Uruguay for example, according to the Trade Freedom and Free Competition Preservation Law (law number 18,159 of 2007) all mergers, acquisition of shares, quotas or participations, acquisition of business as ongoing concerns, total or partial acquisition of corporate assets, and any other type of legally valid agreements which imply transferring the control of all or part of the economic units or enterprises must be notified to the Commission of Promotion and Defence of Free Competition.

- the merger control notice establishes that notice shall be filed prior to exercising direct or indirect control in fact or by law if the merger is above certain thresholds;
- the notice is to be filed by the parties participating in the merger, or if for any reason they cannot, the notice must be filed by the party acquiring control of the corporation, or the entity intending to aggregate shares, trusts, assets etc.;
- if within 10 days following the filing the CFC does not order the parties to refrain from executing the merger until a favorable decision is issued then the parties, at their own risk, can execute the merger.

In the US if the threshold requirements are met, filing under the Hart-Scott-Rodino Antitrust Improvements Act (HSR Act) is mandatory and the transaction cannot be effected until the filing is completed and applicable waiting periods have expired. Additionally, even after filings are submitted, it is a breach of the HSR Act for an acquiring party to take steps that have the effect of transferring beneficial ownership of the target business to the acquirer prior to the expiry of the waiting period. Failure to comply with the HSR Act in such cases can result in a fine of up to $16,000 per day and the agencies may seek to unwind a transaction that has been effected in breach of the law.

However in Chile for example the notification is voluntary as there is no legal obligation to previously notify a horizontal merger or concentration transaction to the antitrust authorities or to make any mandatory filing seeking its approval. Parties may voluntarily request its approval by the Antitrust Court, by initiating a voluntary consultation proceeding. However, bank mergers require prior approval from the Banks and Financial Institutions Superintendence.

Notification is currently voluntary in Brazil as well. However, under the new Brazilian Competition Act - Law 12.529/2011 - which comes into effect in May 2012 transactions caught by the new merger control rules must be pre-notified and may not close until clearance is obtained from the competition authority (CADE).

How is the transaction notified?

Mergers are usually notified through the completion of a standard form. This is to assist the relevant authority to obtain the information needed to be able to assess the proposed transaction.

In the EU the standard form is a detailed questionnaire setting out the information that the parties must provide. It includes, among other, sections on who are the parties, their activities, their

turnover, the agreements that bring about the merger, the competitive effects that the transaction is likely to have etc and supporting materials are usually attached. These are submitted in a specified number of hard copies and CDs.

In the US "The Notification and Report Form"[172] that must be submitted requires the filing party to provide basic information about its US revenues, corporate organisation and certain minority shareholdings of entities engaged in an industry similar to the target's operations on a worldwide basis, and the structure of the transaction, as well as a variety of business documents.[173]

Other agencies have adapted the forms and data requirements to meet the specific needs and complexities of the market in question. A properly designed form will allow the parties and the authorities to identify and collate all necessary data with a view to

- identify and investigate all the important questions that must be dealt with in a merger case, such as market definition, effects on consumers etc, and
- permit the streamlined processing of simple cases and reduce the burden on the limited resources of the competition authority.

Initial examination stage

The initial examination stage must first ensure that the authority can quickly establish whether the notified transaction is a qualifying merger. If the answer is no, the merger case is closed, but a case based on an anti-competitive agreement may be opened. If the answer is yes, the authority will examine the proposed transaction on the basis of available information.

If no competition concerns are raised in this examination, the transaction can be approved without conditions. If concerns are raised which can be easily rectified, the transaction can go ahead subject to specified conditions. If significant competition concerns are outstanding following the initial examination, the authority will take the case to the stage of a detailed examination.

[172] See FTC's website, http://www.ftc.gov/bc/hsr/hsrform.shtm for the latest update on Form requirements, dated 18 Jan 2012.

[173] In particular, the parties are required to submit: "all studies, surveys, analyses and reports which were prepared by or for any officers or directors [of any entity within the filing party] for the purpose of evaluating or analysing the acquisition with respect to market shares, competition, competitors, markets, potential for sales growth or expansion into product or geographic markets." The USA form does not require any discussion or description of the relevant markets or the competitive conditions in those markets.

The detailed examination stage

The detailed examination stage is to deal with those cases that cannot be dealt with easily at the initial stage. It concentrates in collecting all relevant data (see the discussion of evidence below), obtaining the views of consumers and other affected parties such as competitors, and conducting the requisite analysis. The authority should provide the merging parties an opportunity to respond to the concerns identified, and where allowed, to offer remedies to such concerns (e.g. such as the sale of part of the new business). It is also advisable before any final decision is taken to allow third parties to also comment on the view of the authority and any possible remedies considered. This will allow third parties to express their views but also to draw attention to any possible shortcoming to the proposed remedies. One must keep in mind that there may be aspects of the operation of market which the authority is unaware of, and which might make a proposed remedy unworkable.

Based on all the above data, comments and analysis, the authority must then issue a decision on the proposed transaction.

The decision stage

Although this may appear to be an obvious point to make it should be kept in mind that the decision stage is as crucial as the actual analysis carried out. It is important in that it sets out the "decisions" of the authority (reasons, findings, conditions) in a clear and an unambiguous manner both to avoid providing grounds for legal challenge and to eliminate uncertainty over the conditions imposed. Drafting merger decisions is subject to the same principles as all decisions issued by public authorities. Caution is required in dealing with commercially confidential information. The normal practice in such cases would be for the decision to be drafted including all relevant data and arguments on which the decision was made, but then the parties involved would have the opportunity to make representations as to what information should be withheld from the public version of the decision. The authority can then remove any commercially confidential data or information from the decision, and the parts removed can be marked with an appropriate note.[174]

The final decision can be:

- the merger is cleared without any conditions;
- the merger is cleared subject to conditions; or
- the merger is prohibited.

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[174] In the case of the European Union, the note reads: "*In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EEC) No 4064/89 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus […]. Where possible the information omitted has been replaced by ranges of figures or a general description*"

The European procedural arrangements are set out in the accompanying box.

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Procedures - The European Union Case

Phase I investigation:

The European Commission has 25 working days in which to examine the merger application. During this period it:

invites third parties to comment on the transaction. This is done by publishing on the web and the Official Journal of the EU a notice of the proposed transaction. Comments must be sent within 10 days of the publication,

invites the views of suppliers, customers and competitors of the parties through questionnaires,

may ask the parties for supplementary information or to comment on the points made by third parties in their submissions.

Where the preliminary results are that the merger may require remedies, it will inform the parties to give them the opportunity to draft and submit appropriate remedies proposals. If the parties offer such remedies, the Commission (which has 35 working days in total in cases where there is an offer for remedies) "market tests" and subject to any changes it may require of them the Commission may decide at the end of Phase I that:

- the Merger Regulation is inapplicable because, for example, the transaction is such that it does not fall within the rules;
- the merger can be cleared without any conditions;
- the merger can be cleared subject to the commitments offered by the parties and accepted by the Commission; or
- there are serious concerns ("serious doubts" as these are known under EU rules) as to the compatibility of the proposed merger and therefore a Phase II Investigation should be carried out.

Phase II investigation:

Phase II cases entail a detailed investigation of the proposed merger. The Commission must take a decision in Phase II within 90 working days but this is extended to 105 working days if the parties offer commitments.

During Phase II the Commission will concentrate on supplementary fact-finding and on the preparation of the Commission's statement of objections i.e. the concerns raised. Following the issuance of the statement of objections the parties have the opportunity to have access to the file prepared by the Commission, reply to the statement of objections, exercise their right to an oral hearing and discuss draft remedies. The parties have two weeks to reply to the statement of objections and if they request an oral hearing, it will usually be one week later. Third parties may be invited to attend.

The parties may submit commitments to address any outstanding competition concerns and as with Phase I these will be "market tested".

At the end of phase II, the Commission may decide that:

- the merger can be cleared without any conditions;
- the merger can be cleared subject to the commitments offered by the parties and accepted by the Commission; or
- the merger must be prohibited.

The substantive examination or test for a merger

As we mentioned, merger control consists of basically answering two questions:

1. does the proposed transaction pose a threat to competition, and
2. if yes, can that threat be eliminated?

The test for the merger itself under the EU rules is whether the proposed merger can be expected to "*significantly impede effective competition*" ("SIEC" test). This test is conceptually similar to the "*substantial lessening of competition*" test that is applied in the US, in the United Kingdom and in several other jurisdictions. The creation or strengthening of a dominant position (the legal test until 2004) is one example of a SIEC, but the Commission is entitled to pursue other theories of competitive harm (e.g. unilateral effects not giving rise to single firm dominance) in its decisions.

The US test under the Clayton Act is to prohibit a proposed acquisition the effect of which '*may be substantially to lessen competition or to tend to create a monopoly*'.

The Argentinean law prohibits economic concentrations the object or effect of which is or may be to restrict or reduce competition so that detriment to the 'general economic interest' may occur (Competition Act 25,156 section 7).

Conceptually, there are three types of concentrations:

- horizontal mergers;
- vertical mergers; and
- conglomerate mergers.

This conceptualisation helps to identify the competition issues that require examination.

Horizontal mergers: i.e. mergers between entities that are actual or potential competitors in the same product and geographic market. These are the most obvious cases where the transaction can have an effect on competition. The ways in which a horizontal merger might have an adverse effect on competition are:

1. By eliminating important competitive constraints on one or more players in the market allowing the merged firm to profitably raise prices on its own – without the need to coordinate with its rivals (*unilateral effects*). Factors that may determine whether unilateral effects are likely to result from a merger include:
    - the merging parties having large market shares;

- the merging parties being close competitors;
- customers having difficulty switching to alternative suppliers;
- competitors not being able to increase output if the combined entity were to limit supply;
- the combined entity being able to hinder expansion of competitors e.g. because they own key IP rights; or
- the merger eliminates an important competitive force e.g. a player with a small market share historically but a promising pipeline product.

2. By changing the nature of competition in the market so that businesses that were not previously coordinating their behaviour are significantly more likely to do so, by raising prices or otherwise, and thereby harm effective competition (*coordinated effects*). The question being whether the merger will alter the means and the incentives of the players in the market (typically an oligopolistic market, vulnerable to tacit collusion) such that they are likely to impose price increases, to reduce output or product quality, to divide up the market between them or to limit innovation in order to reach a more profitable outcome. As set out in chapter 4.6 above, the factors that may determine whether coordinated effects are likely to result from a merger include:
   - the likelihood that the newly configured players in the market would be able to reach terms of coordination or the new market structure makes coordination easier;
   - whether market transparency would enable the undertakings to monitor deviations from the terms of coordination;
   - the ability of market players to punish companies that deviate from the terms of coordination;
   - whether third parties would be able to thwart the efforts of the coordinating firms to achieve outcomes that harmed consumers; and
   - whether customers of the merging parties exert countervailing market power.

When looking at horizontal mergers the US federal courts have largely adopted the analytical methodology set out in the Horizontal Merger Guidelines issued by the antitrust agencies of the country. The Guidelines revised in 2010[175] have as their basis the idea that a merger should not be permitted to proceed if it will create or enhance market power or facilitate its exercise.

[175] www.ftc.gov/os/2010/08/100819hmg.pdf

In Chile for example, the National Economic Prosecutor's Office (NEP issued its 'Internal Concentration Operation Guidelines' (the Guidelines) establishing thresholds for their own internal review. According to the Guidelines, the FNE using the Herfindahl-Hirschman Index or market concentration (HHI) will presume that a concentration transaction that does not exceed the following thresholds will have no potential antitrust effect and, therefore, the FNE will rule out a further investigation:

- if the post-merger index is lower than 1000; if the post-merger index is 1000<HHI<1800 (the value of this index indicates a moderately concentrated market), and increase in the HHI is less than 100; and
- if the post-merger index is HHI>1800 (the value of this index indicates a highly concentrated market) and the increase in the HHI is less than 50.

Market power is defined as the ability of a seller '*profitably to maintain prices above competitive levels for a significant period of time*'. Under the USA Guidelines, the likelihood that a proposed transaction will create or enhance 'market power' or facilitate its exercise may be established either by direct evidence of likely anti-competitive effects (or actual anti-competitive effects in cases of consummated transactions) or alternatively by circumstantial evidence.

Vertical mergers: vertical mergers are mergers between entities that operate at different but adjacent levels in the chain of production or distribution (upstream or downstream). Since non-horizontal mergers do not affect the number of firms operating in a market, they are less likely to have harmful effects on consumers and in some cases could result in efficiencies that could in turn enhance incentives to compete. The focus here is on market structures where a vertical merger could lead to an adverse effect on competition. The emphasis here is on unilateral effects, and especially on the risk of foreclosure. As such the competition authority looks at the risk of:

- input foreclosure (i.e. where the merged firm is likely to raise the costs of downstream rivals by restricting their access to an important raw material, making them less competitive). For this to be a concern, the merged business would have to have "a significant degree of market power" upstream, and
- customer foreclosure (i.e. where the merged entity forecloses rivals upstream by restricting their access to an adequate customer base). For this to be a concern, the merged business would need to be an "important customer" with a significant degree of market power.

Where the merged business's market share is less than 30% in both the upstream and downstream market, the EU considers that there is a presumption that no non-horizontal concerns will arise.

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Conglomerate mergers: An analytical framework similar to vertical mergers applies for conglomerate mergers, i.e. mergers between entities whose businesses are complementary or belong to the same product range, without there being a horizontal overlap or a vertical relationship. Conglomerate effects that are likely to be scrutinised are in particular foreclosure by means of bundling or tying.

Remedies

The conditions and remedies imposed or undertakings required of the combined entity must meet the concerns raised and are normally classified into two categories, structural and behavioural. They can include:

- divestiture of business and related assets;
- contractual arrangements such as the licensing of intellectual property; and
- other behavioural remedies/ quasi-structural remedies such as granting access to a network or infrastructure on non-discriminatory or favourable terms.

Alternatively, where there are major concerns arising from the merger and which cannot be met by conditions, the transaction can be prohibited.

For example in Chile**,** the Antitrust Court (Decision No. 02/2005) regarding the acquisition of BellSouth Chile Inc and BellSouth Chile Holdings Inc by Telefónica Móviles SA, approved the transaction based on the efficiencies that the integration would create, despite the existence of entry barriers in a highly concentrated market where the number of market operators would be reduced from four to three, with the consequent increase in market concentration. However, the Court approved the merger subject to the following conditions:

- Telefónica Chile must transfer some of its telecommunication concessions through a public tender, the conditions of which were previously approved by the Antitrust Court;
- the subsistent company after the merger, Telefónica Chile, must be subject to the rules established by Law No. 18,046 for openstock companies and be under the supervision of The Chilean Securities and Insurance Supervisor (Superintendencia de Valores y Seguros - SVS); and
- Telefónica Chile was prohibited from on 'on-net' and 'off-net' discrimination pricing policies until the concessions mentioned above are transferred.

Although it may be tempting in some cases to seek to deal with other issues through the merger decision (e.g. social issues such as employment, plurality of content etc.) the authorities should not be drawn into them unless the law clearly requires them to take such issues into account.

Cases[176]

It must be acknowledged that transactions leading to the restructuring, including of the mobile industry, can be beneficial, if they allow rationalisation and the achievement of economies of scale, or other benefits. However, such mergers and acquisitions may result in anti-competitive effects. This is more of a concern in markets such as the mobile ones due to their nature i.e. they are oligopolistic and with high barriers of entry. Although this may require a more thorough investigation, to the best of our knowledge there has been no case of outright prohibition of the transaction (although some may have been abandoned by the parties in the process).[177] However, there have been cases where the authorities have imposed certain conditions/commitments on the parties to remedy anti-competitive effects of the proposed transaction.

Cases involving mobile operators[178] include in the United States the cases of AT&T/Dobson, Verizon Wireless/Rural Cellular, and Verizon Wireless/Alltel and in the EU they include Vodafone Airtouch/Mannesmann, France Telecom/Orange, Pirelli/ Edizione /Olivetti/Telecom Italia, and T-Mobile/Tele.ring, and more recently T-Mobile/Orange in the UK.

To generalise, competition authorities have tended to permit, possibly with remedies, mergers which reduce the number of players from five to four or from four to three, but not to allow three to two or two to one mergers. But there can be exceptions.

Case 5.1. –EU – 2010 - Orange UK and T-Mobile UK COMP/M.5650[179]

[176] We do not give full summaries of the cases chosen, which often have many aspects. Our account is designed to emphasise treatment of the issues covered in this chapter.

[177] These include a recent proposal to reduce the number of mobile operators in Greece from three to two, which was abandoned in the face of hostility from the European Commission.

[178] Cases involving the fixed sector may involve consolidation based on merging the fixed network operators in two (possibly adjacent) territories. See for example the Telia/Telenor merger and the Telia/Sonera merger.

[179] *Official Journal* C 108, 28/04/2010, p. 0004.

The merger of Deutsche Telekom's and France Telecom's UK mobile subsidiaries took the form of a combination of T-Mobile UK and Orange UK into a new 50:50 joint venture company covering a range of customers from business to post-paid consumers, as well as wholesale customers. The merging parties have maintained that the combination of their UK mobile operations would bring about substantial benefits to UK customers including expanded network coverage, enhanced network quality, exploitation of new technologies and increase in R & D capacity. They also expected that the potential for substantial cost savings would enable them to compete more effectively in the United Kingdom.

The European Commission to which the transaction was notified did not identify any direct concerns in relation to the provision of mobile telephony services to end-consumers, the wholesale market for access, call origination on public mobile telephones, and the wholesale market for international roaming and related markets. It did however raise concerns in relation to a network sharing agreement that T-Mobile UK had in place with Hutchison 3G UK[180] (3UK). This could threaten 3UK's viability on the market and possibly eliminate a competitor. With the merger of Orange and T-Mobile, there would be only four players in the UK so the fate of 3UK was important because of its role as a driving force for competition. For example, it was the first to introduce a low-cost, flat-rate mobile broadband package, and offered the cheapest mobile broadband data package on the market.

Because of the dependence of 3UK on the networks of the two merging parties and because the parties could terminate early the existing agreement with 3UK, the Commission came to the conclusion that the transaction might have indirectly affected 3UK's role on the retail market as well the viability of 3UK as a competitor after the proposed transaction. The parties to meet these concerns concluded a revised agreement with 3UK.

The Commission's investigation also revealed that the combined amount of contiguous[181] spectrum held by the parties in the 1800 MHz band would be larger than the amount of spectrum held by competitors in the market. This could result in the new entity being the only mobile network operator (MNO) in the UK able to offer next-generation mobile data services through Long Term Evolution (LTE) technology at the best possible speeds within the medium term. The Commission also considered the scenario of what could happen if the merger did not go ahead and was of the view that in the absence of the merger, it seemed likely that more than one LTE network would have emerged in the UK market. Thus the concentration of spectrum in the 1800 MHz band could have an anti-competitive impact on the future of the UK mobile telephony market, both at wholesale and at retail level. In order to address the competition concerns identified by the Commission the parties offered to divest 15 MHz of spectrum in the 1800 MHz band which was accepted as a condition to approve the transaction.

Case 5.2. –USA – 2011 - AT&T and T-Mobile[182]

On April 21, 2011, AT&T Inc. ("AT&T") and Deutsche Telekom AG ("Deutsche Telekom") filed a series of

[180] The smallest mobile network operator in the United Kingdom.

[181] Contiguous spectrum is generally preferable, as this can allow both the provision of higher speed end-user services and the provision of moderate speed end-user services more consistently over a larger area.

[182] *DOJ* -11-cv-01S60.

applications seeking the FCC's consent to the transfer of control of the licenses and authorizations held by T-Mobile USA and its wholly-owned and controlled subsidiaries from Deutsche Telekom to AT&T. The proposed transaction would combine two of the largest providers of wireless telephony and broadband services in the United States. If the proposed transaction was approved, AT&T would become the largest mobile wireless provider, the leader in wireless subscribers and giving it two-and-a-half times the number of subscribers as the third largest supplier. At the same time that AT&T would grow larger, the proposed transaction would simultaneously eliminate T-Mobile, a provider whose disruptive pricing and innovation have benefitted wireless consumers throughout the United States. The potential loss of this competitive force in the market was a cause for serious concern. While the FCC examined the application under the Communications Act to determine whether the "public interest, convenience, and necessity will be served" by granting an application, the Department of Justice sought to block the transaction before the courts. It is interesting to note that the Department of Justice in its court application (similar to the EU case of T-Mobile Austria/tele.ring mentioned above) made special reference to the fact that T-Mobile has been self-described as a "challenger brand," and had been developing and deploying "disruptive pricing" plans placing competitive pressure on its three larger rivals, particularly in terms of pricing. The Department of Justice was particularly concerned that AT&T's elimination of T-Mobile as an independent, low-priced rival would remove a significant competitive force from the market and the acquisition would substantially lessen competition in breach of Section 18 of the Clayton Act.[183]

The Department of Justice identified two product markets, namely:

a) Mobile wireless telecommunications services include both voice and data services provided over a radio network and allow customers to maintain their telephone calls or data sessions wirelessly when travelling.

b) Mobile wireless telecommunications services provided to Business customers.

The relevant geographic markets according to the Department of Justice was for retail customers "local" based on the licences granted whereas for business customers, because of the way the market players were competing with each other, the fact that business customers had offices in different states, employees travel and because customers generally require a mobile wireless provider with a nationwide network, and were willing to contract with a carrier anywhere in the United States who has such a network it considered that the United States (i.e. national) was the relevant geographic market for business customers.

The Department of Justice made special reference to the fact that T-Mobile had positioned itself as the value option for wireless services, focusing on aggressive pricing, value leadership, and innovation. It was therefore concerned that AT&T's acquisition of T-Mobile would eliminate the important price, quality, product variety, and innovation competition that an independent T-Mobile brings to the marketplace. Also it was concerned that the proposed merger would eliminate one of the four national competitors, resulting in a significant loss of competition. Local players faced significant competitive limitations, largely because of lack of nationwide spectrum and networks. They were therefore limited in their ability to competitively constrain the Big Four

[183] "*No person engaged in commerce or in any activity affecting commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no person subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of another person engaged also in commerce or in any activity affecting commerce, where in any line of commerce or in any activity affecting commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly*."

national carriers.[184]

One other concern was the fact that the substantial increase in concentration that would result from this merger, and the reduction in the number of nationwide providers could lead to lessened competition due to an enhanced risk of anticompetitive coordination. Certain aspects of mobile services markets, including transparent pricing, little buyer side market power, and high barriers to entry make them particularly conducive to coordination. Any anti competitive coordination at a national level would result in higher nationwide prices by the remaining national providers.

Also among the concerns quoted was the fact that by eliminating T-Mobile innovation and product variety would be reduced. T-Mobile had introduced a number of "firsts" in the past (first Android phone, Blackberry e-mail etc) which might be lost as a result of the merger.

Also, there were concerns that the merger might lead to fewer investments in technology because the proposed transaction was likely to reduce the competitive incentive to invest in wireless networks to attract and retain customers; and the loss of competition that has resulted in lower prices for mobile wireless telecommunications services.

Similar considerations were identified for the second market identified i.e. the national market for mobile wireless telecommunications services provided to business users.[185]

Because of these concerns the Department of Justice had sought a court order to block the transaction. In the meantime the parties have now sought to put on hold the transaction and have withdrawn their application to proceed with the merger.

Case 5.3. – Chile -2005 - Acquisition of BellSouth Chile Inc. and BellSouth Chile Holdings Inc. (together BellSouth) by Telefonica Moviles S.A.[186]

[184] Among other limitations, the local providers had to rely on one of the four nationwide carriers to provide them with wholesale services in the form of "roaming" in order to provide service in areas outside of their respective service areas. This places them at a significant cost disadvantage, particularly for the growing number of customers who use smartphones and exhibit considerable demand for data services. The local providers also did not have the scale advantages of the four nationwide carriers, resulting in difficulties obtaining the most popular handsets, among other things. Due in large part to these limitations and disadvantages, these local and regional providers typically have small shares and none is as effective a constraint as is T-Mobile on AT&T, Verizon, and Sprint.

[185] Specific elements identified were:

(i) the fact that the reduction in the number of bidders business contracts and in particular the removal of potentially the most attractive bidder resulting in both the merged firm and its competitors having a reduced incentive to submit low bids.

(ii) T-Mobile was expected to become even more important in such contracts as evidenced from its business plan in that it was planning to increase its market share in the business sector.

The elimination of T-Mobile, an aggressive competitor, was therefore likely to result in fewer choices and higher prices for business users.

[186] Resolution No. 02/2005, Acquisition of BellSouth Chile Inc. and BellSouth Chile Holdings Inc. (together BellSouth) by

Telefónica Móviles S.A. (TEM) acquired the Chilean subsidiaries of BellSouth Corporation (BellSouth Chile, Inc. and BellSouth Chile Holdings, Inc.). These operators requested the approval of the Competition Tribunal (the Tribunal) for the acquisition of BellSouth by TEM, under Law Decree Nº 211 of 1973 as amended by law 19,911 of 2003.

BellSouth Comunicaciones S.A. provided mobile services in Chile and BellSouth Inversiones S.A. owned 99,99% of the equity shares of BellSouth Chile S.A. (an operator that offered long distance services). The acquisition of BellSouth Chile qualified as a consolidation of operations among competitors in the mobile market. The Tribunal analyzed the markets for analogue and digital mobile service markets, offered via concessions for the usage of radio spectrum within Chile taking into account that consolidation in the mobile market would increase after the proposed acquisition.

The Tribunal was concerned about (i) the main entry barrier to the mobile market being the availability of spectrum, since it could only be made accessible through a concession granted by public tender and given that there were no plans to tender additional spectrum and (ii) the size of the spectrum band allocated to each operator because of its effects on operating costs and quality of service.

Greater consolidation in a market with entry barriers, sunk costs and advertising investments would assist operators to coordinate their competitive behaviour. Moreover, operators would compete under asymmetric conditions (uneven allocation of spectrum). In addition, the operator resulting from the acquisition could increase its dominant position in the market, since it could differentiate between prices of on-net and off-net calls. Furthermore, given the relationship between the dominant fixed telephony operator (Telefónica CTC) and the resultant operator, collaboration could take place.

Nevertheless, given the characteristics of the industry, the Tribunal found that the acquisition could be approved subject to the establishment of safeguards to maintain competition in the market which were:

1. TEM should transfer those concessions that gave it more than 25MHz in the 800 MHz band, at the national level to unrelated third parties under an open and non-discriminatory bidding process, within 18 months of the decision with the condition that no operator should possess more than 60 MHz of spectrum. Also the tender documents should be submitted to the Tribunal for approval.

2. The companies resulting from the approved merger should abide by the regulations of public limited companies and enlist in the securities registry of the Superintendence of Securities and Insurance.

3. During the spectrum transfer process, neither the incumbent nor the new merged entity could offer pricing plans that included different prices for on-net and off-net calls.

4. Obligations were also imposed concerning providing consumers with information relating to changes to telephone numbers

5. The Subsecretaría de Telecomunicaciones (SUBTEL) would supervise the removal of switching barriers for consumers and in particular the elimination of mobile phone blocking that prevents the usage of the mobile

Telefonica Moviles S.A..

phone on other operators' networks.

6. Any joint offering of fixed and mobile services launched by the incumbent or the new operator that included Telephonica CTC services would be considered a CTC offer and as such subject to the regulations of SUBTEL.

7. The Court advised SUBTEL to instruct mobile operators to offer resale plans to companies that did not have their own networks.

Case 5.4. – Argentina -2005 -Telefónica Móviles S.A. and Telefónica Comunicaciones Personales S.A.[187]

Like case 5.3 above, this is another case where Telefónica Móviles S.A. acquired the assets of Bellsouth Corporation in Latin America, in this case in Argentina. The result of the proposed merger was that the control of Compañía de Radiocomunicaciones Móviles S.A. (Movicom) and Compañía de Teléfonos del Plata S.A. was transferred to Telefónica Móviles S.A..

National Commission for the Defence of Competition (CNDC) in Argentina in advising the Minister to allow the merger to proceed examined the following affected markets: local fixed telephony, long distance telephony, data transmission, Internet access, provision of carrier services (long distance and local circuits) and mobile services. In defining the relevant markets CNDC took into account:

1. the presence of scale economies and sunk costs;
2. the presence of value-added services that are more efficiently provided in a bundled product (scope economies); and
3. that some services were provided in baskets and these services were considered complementary for the consumers.

The acquisition also presented vertical relations in different services (e.g. the provision of telephone fixed lines for payphones, the provision of local access to dial-up internet providers, mobile termination of local calls and roaming services).

Regarding the fixed telephony market, the CNDC was satisfied that the proposed acquisition did not raise any concerns since the concentration increase was not significant. In the markets of data transmission or long distance services, the operation of facility-based operators and other entrants mitigated the possible undesirable effects on competition. In the market of payphone services, some concerns arose since a major operator in the fixed market would participate in a downstream market, resulting in incentives to foreclose the market.

In the mobile market the acquisition produced a significant increase in the level of market concentration. The CNDC however took into account the fact that competition in the market was strong and that with respect to

[187] Notificacion Art. 8 De La Ley N. 25.156 (Conc. 0448).

CRC América Latina

roaming, regulations already mandated all operators to establish agreements in a non-discriminatory way. At the same time concerns were raised due to the possibility that Telefónica could set high mobile termination charges to the detriment to its competitors. In addition the new company would hold 85 MHz of radio spectrum, when 50 MHz was the maximum permitted by regulation.

Decision

The CNDC advised the Secretary of the Technical Coordination to:

1. make the approval of the acquisition dependant on the effective reduction of the spectrum concentration to the level authorized by the regulations;

2. mandate the parties to provide public telephone lines to unrelated payphone operators under non-discriminatory conditions; and

3. to abstain from using mobile termination charges to exclude competitors from the market while regulation of 'calling party pays' for mobile-to-mobile calls is not in force.

Case 5.5. – Chile -2004 - Liberty Comunicaciones De Chile Uno Ltda. and Cristalchile Comunicaciones S.A.[188]

The Competition Tribunal (the Tribunal) examined the merger of Metropolis Intercom S.A. and VTR S.A. – a merger among competitors in the cable TV market, which created a monopoly in the provision of cable TV services.

The Tribunal considered three relevant markets: cable TV (distribution of national and international television signals, in addition to those offered through open television), broadband Internet access, and fixed telephony. These markets were interrelated in terms of supply, as well as demand. On one hand, cable TV operators offered fixed telephony and broadband Internet access. On the other hand, fixed operators offered broadband and were able to provide pay television. Regarding demand, there was some degree of substitution among these three services, since broadband served as a means of communications as well as an entertainment service, and it therefore represented a substitute, to some extent, to pay-TV and telephony. The geographic market was the national territory.

The Tribunal took into account that there were significant sunk costs and unrecoverable investments in the cable TV market that affect market competition since they involved greater exit risks.

The Tribunal emphasized the following potential anticompetitive effects:

1. if the resultant company had out-of-the-ordinary benefits, it could subsidize related products and services (e.g. fixed telephony and broadband) and it would be possible that the company would offer tied services (cable TV, broadband and telephony).

2. the merger could threaten the variety of programming offers. Furthermore, the low likelihood of customer churn could result in lower quality of service.

3. the purchase of content by one dominant company could generate some distortions.

4. although the merger would generate cost reductions for the operators and greater competition for the telecommunication market, it could have negative effects on consumers.

However, the Tribunal decided that the merger could be positive for the national telecommunications

[188] Resolución N° 01 /2004.

market, since it would reduce investment costs to jointly provide three services, and in so doing it would allow for an increase in penetration of telecommunication services. Competition in these essential services for the development of Chile outweighed having, for a period, an operator with a clear dominant position in the pay-TV market. Moreover, the Court was convinced that technological dynamism would eliminate this dominant position in the pay TV market. Nonetheless, given the significance of sunk costs in this industry, new entrants could face predatory practices. Therefore, the Court imposed some restrictions on the resultant operator.

Decision

The Tribunal approved the merger and established the following conditions:

1. The group that controls the merged company cannot participate in the ownership of satellite and microwave television operators in Chile.

2. The merged company was prohibited from participating directly or indirectly in the ownership of companies considered as dominant operators in the fixed telephony market. The agreement between CTC (the incumbent operator in the fixed telephony market) and Metropolis should be terminated. Any agreement with dominant operators in the fixed telephony market should be submitted to the Tribunal for approval.

3. If the merged company offers different telecommunication services as packages, it should indicate, separately, the price and terms of each service. The company was prevented from linking cable TV services to broadband Internet access or fixed telephony. It could offer those services as a package only if the acceptance of the offer by the user was voluntary. In addition, it was prevented from discriminating in the quality of programming.

4. The merged company should provide a wholesale offering for ISPs, in a non-discriminatory manner and according to competitive prices in the market of internet access.

5. The merged company was forbidden from using its market power on programmers that sell signals or production for pay TV, in order to unjustifiably deny purchasing or from offering a price unrelated to the competition conditions of the market.

6. In the future the merged company should refrain from acting as a distributor in Chile of thematic channels produced or distributed nationally or internationally. It should also refrain from accepting exclusivity rights for the retransmission of movies, thematic channels or others produced for any national or international content company. This condition was not applicable to agreements for exclusive transmission of specific events.

7. During the three years following the merger, the merged company should not increase prices or reduce programming quality in the zones where it already provided services, unless adjustments reflected cost variations.

8. The merged company should apply a uniform pricing policy for the whole national territory, without discriminating by geographic zone, without regard of the presence of other operators that provide pay TV services over any platform.

Case 5.6. - Honduras -2011- Millicom Cable of Honduras acquisition of Cable Television de Choluteca[189]

The Commission for the Defence and Promotion of Competition (CDPC) in Honduras issued resolution 16-

[189] 16-CDPC-2011

CDPC-2011 on October 7, 2011 following a request from Millicom Cable of Honduras to acquire Cable Television de Choluteca. The CDPC determined after completing its analysis of competition to authorize the acquisition of the assets in the city of San Lorenzo to provide Cable TV and Fixed Internet Access. In the same Resolution the acquisition of assets to provide Cable TV and Fixed Internet Access in the city of Choluteca was prohibited. According to the Commission, the acquisition in Choluteca would result in the new entity having a market share of 78% for the Cable TV market (HHI of 8,634.8) and a market share of 76% for internet access services (HHI of 6,086.3).

On December 16 2011 the CDPC issued Resolution 22-CDPC-2011 repealing 16-CDPC-2011 accepting an appeal made by Millicom Cable of Honduras (MCH) to acquire the assets of Cable Television de Choluteca in the city of Choluteca, and permitted to MCH to make the purchase. In making its decision, the CDPC came to the conclusion that the purchase would result in significant transfers of efficiencies to consumers. MCH guaranteed to offer consumers in Choluteca the same prices as in the market of Tegucigalpa which according with the Commission is highly competitive. The Commission in its resolution set maximum prices for the existing and new customers in the markets for Cable TV and Fixed Internet Access in the City of Choluteca for the period 2012 – 2016.

Conclusion

Mergers are one of those rare occasions where competition authorities are called upon to decide not based on the evidence before them but on what they think might happen in the future. This can be challenging in that any gazing into the future needs to be based on facts and justified analysis.

The authority must keep in mind that companies combining forces is a healthy part of a thriving economy and can bring benefits to the economy through the development of new markets and products as well as through greater efficiency. However the difficult role of the authority is to see into the future and identify those cases that may lead to reduction in competition in a market, through either creating or strengthening a dominant player or by making collusion between players easier.

The decisions of the authority in such cases have a major impact not only on the parties involved but also on the future development of the market.

A number of jurisdictions require the competition authorities to take into account other matters outside the scope of pure law and economics. They can range from the protection of the local industry to local media, language etc. This simply makes the task more complicated.

The purpose of this chapter has been to identify processes which can be adopted to identify those mergers that may raise competition concerns. It is notable that the overall approach in terms of

market definition, market concerns and remedies tends to be similar across the different jurisdictions examined.

6 CONCLUSION

This paper has set out how competition law has been applied to the telecommunications sector. It must be re-emphasised that it is not based on the competition law of a single country, but on the authors' construction of a 'representative' contemporary version of law and practice. **Accordingly it cannot be used as a guide to the conduct of proceedings in any particular jurisdiction, which will have its own laws, precedents and procedures.** We hope, however, that it will be useful in indicating in general terms how competition law can be applied, and that the inclusion of selected cases provides useful illustration.

Our account of the operation of competition law (and the accompanying case summaries) show that it can be applied against unlawful practices by operators which have detrimental effects on end users of telecommunications services, and also on competitors and the competitive process. The burden of proof on the enforcing authority is significant, but the task can successfully be accomplished and is facilitated by a clear understanding of what has to be demonstrated. The authority then has the satisfaction that penalties imposed, if they are proportionate, should have a deterrent effect on the telecommunications marketplace.

The paper has also discussed the relationship in the telecommunications sector between sector-specific legislation and competition law. We have shown that the two, to some degree, reinforce each other (if they are both applicable) and to some degree are substitutes. In relation to aspect of substitution, two further points can be made. The first is that, if for any reason sector-specific regulation is lacking or poorly enforced, then the competition authority can step in. Secondly, the ever increasing weight within the sector of wireless technologies has permitted more players to enter first voice and now data markets. In our view, this permits interventions based on *ex ante* regulation of fixed monopolies increasingly to be replaced by the *ex post* application of competition law in markets which will still have a small number of players and barriers to entry, but can exhibit much more head-to-head competition than is generally found with fixed networks.

This considerably expands the potential role of competition law in telecommunications.

ANNEX 1: GLOSSARY

This glossary draws from the Glossary of terms used in EU competition policy and produced by the European Commission and the OECD Glossary of industrial organisation economics and competition law. It should be noted that these definitions are brief, high level and as such not exhaustive.

Abuse of a dominant position

Anti-competitive business practices (including improper exploitation of customers or exclusion of competitors) which a dominant firm (or firms) may use in order to maintain or increase its position in the market. Competition law prohibits such behaviour, as it damages true competition between firms, injures consumers, and makes it unnecessary for the dominant undertaking to compete with other firms on merit.

Bundling

This occurs when one product is sold in proportion to another as a requirement for the sale. It is related to the concept of tied selling. Bundling of products may be a source of economies or efficiencies for the manufacturer, as it may lead to a lower composite price for the buyer than if all the different products were supplied or bought separately. However, bundling may also make it difficult for firms to enter to supply individual components of the bundle. The competition implications of bundling, including that of tied selling generally, are complex and need to be evaluated on a case by case basis adopting a rule of reason approach.

Buyer power

Ability of one or more buyers, based on their economic importance on the market in question, to obtain favourable purchasing terms from their suppliers. Buyer power is an important aspect in competition analysis, since powerful buyers may discipline the pricing policy of powerful sellers, thus creating a 'balance of powers' on the market concerned. However, buyer power does not necessarily have a positive effect. Where a strong buyer faces weak sellers, for example, the outcome can be worse than where the buyer is not powerful. The effects of a buyer's strength also depend on whether the buyer, in turn, has seller power in a downstream market.

Cartel

Arrangement(s) between competing firms designed to limit or eliminate competition between them, with the objective of increasing prices and profits of the participating companies and without producing any objective countervailing benefits. In practice, this is generally done by fixing prices, limiting output, sharing markets, allocating customers or territories, rigging bids or by a combination of these specific types of restriction. Cartels are harmful to consumers and society as a whole due to the fact that the participating companies charge higher prices (and earn higher profits) than in a competitive market.

Cellophane fallacy

When determining if two goods or services are good substitutes for one another, both should be charged at their competitive, not their actual, prices. This is because a monopolist pricing a new good, such as cellophane in the 1950s, will price it up to the point where customers are just on the point of ceasing to buy it. This deliberate pricing behaviour creates the illusion of substitution even when, at competitive prices, it would not exist.

Collusion

Collusion refers to the coordination of firms' competitive behaviour. The likely result of such coordination is that prices rise, output is restricted and the profits of the colluding companies are higher than they would otherwise be. Collusive behaviour does not always rely on the existence of explicit agreements between firms. Collusive behaviour can also result from situations where firms act without communication but — in recognising their interdependence with competitors — jointly exercise market power with the other colluders. This is normally described as 'tacit collusion'.

Competition

A situation in a market in which sellers of a product or service independently strive for the patronage of buyers in order to achieve a particular business objective, for example, profits, sales and/or market share. Competitive rivalry between firms may take place in terms of price, quality, service or combinations of these and other factors which customers may value.

Costs

Costs refer to the value in alternative uses of the factors of production used by a firm (labour costs, materials costs, capital costs.). Costs may be fixed or variable.

> **Fixed costs** are costs that do not vary with the amount produced. Examples are interest on debt, property taxes and rent. Economists also add to fixed cost an appropriate return on

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capital which is sufficient to maintain that capital in its present use. This reflects the idea that all economic costs are opportunity costs, the cost of foregone alternatives. Thus, the return to capital if employed elsewhere constitutes its opportunity cost.

Variable costs are costs that vary with the amount produced. Examples are materials, energy, labour and maintenance. As the relevant time period is extended, more costs become variable.

Total costs refer to the sum of fixed and variable costs.

Average costs refer to total costs divided by output.

Average incremental cost is the per unit increment to total cost that results from producing an additional increment of output.

Marginal cost is the incremental cost of producing a single unit of output.

Cross Price Elasticity of Demand

Refers to the percentage change in the quantity demanded of a given product due to the percentage change in the price of another "related" product. If all prices are allowed to vary, the quantity demanded of product X is dependent not only on its own price but upon the prices of other products as well. The concept of cross price elasticity of demand is used to classify whether or not products are "substitutes" or "complements". It is also used in market definition to group products that are likely to compete with one another. If an increase in the price of product Y results in an increase in the quantity demanded of X (while the price of X is held constant), then products X and Y are viewed as being substitutes.

Dominant position

A firm is in a dominant position if it has the ability to behave independently of its competitors, customers, suppliers and, ultimately, the final consumer. A dominant firm holding such market power would have the ability to set prices above the competitive level, to sell products of an inferior quality or to reduce its rate of innovation below the level that would exist in a competitive market.

Downstream market

Market at the next stage of the production/distribution chain; for example, the retail sale of broadband services to end customers is downstream from the wholesale supply of such services.

Duopoly

Special case of oligopoly: industry structure with two sellers. In competition cases the term is often

also used for situations where two main sellers dominate the competitive structure and a fringe of smaller sellers adapts to their behaviour. The two main sellers are then referred to as the duopoly.

Economies of scale

Economies of scale occur when firms achieve per unit cost savings by producing more of a good or service (that is, when average costs decrease as output increases).

Economies of scope

Economies of scope occur when firms achieve cost savings by increasing the variety of goods and services that they produce (joint production). Such effects arise when it is possible to share components and to use the same facilities and personnel to produce several products.

Efficiency

The term has a wide number of usages. In the context of industrial organization economics and competition law and policy, it relates to the most effective manner of utilizing scarce resources. Three types of efficiency are generally distinguished: technical, allocative and dynamic efficiency. A firm is technically efficient if it produces output without waste and at minimum cost. Allocative efficiency arises when resources are employed in their most efficient use, given end user demand and the structure of production costs. Dynamic efficiency arises from use of improved technological processes and the availability of new products and services. Competition is generally viewed by economists as likely to stimulate all three kinds of efficiency.

Entry barriers

Barriers to entry are factors that prevent or hinder companies from entering a specific market. Entry barriers may result, for instance, from a particular market structure (for example, the requirement for substantial sunk costs or brand loyalty of consumers to existing products), or the behaviour of incumbent firms. It is important to add that governments can also be a source of entry barriers (such as through licensing requirements and other regulations).

Essential facility

A facility or infrastructure which is necessary for reaching customers and/or enabling competitors to carry on their business. A facility is essential if its duplication is impossible or extremely difficult due to physical, geographical, legal or economic constraints.

Exclusionary practice

Practice by a dominant company that tends to impair the opportunities for competitors based on considerations other than competition on the merits. An example would be the decision, by a company dominant on the market for production of a certain product, not to supply a customer, because it is a competitor active in the market for distribution of the product.

Exploitative behaviour

A situation in which a supplier or suppliers of services use their market power to charge their customers excessive prices, offer poor quality, impose unfair terms or limit innovation.

Foreclosure

Strategic behaviour by a firm or group of firms to restrict potential competitors' access to either an upstream or a downstream. Foreclosure can take different forms, from absolute refusal to deal to more subtle forms of discrimination such as the degradation of the quality of access.

Herfindahl-Hirschmann Index (HHI)

Specific measurement of market concentration, or the degree to which a small number of firms accounts for a large proportion of output. The HHI is used as one possible indicator of market power or competition among firms. It measures market concentration by adding the squares of the market shares of all firms in the industry. Thus a monopolistic market has a score of 10,000, and a perfectly competitively market has a score of 0. So where, for example, five companies in a market each has a market share of 20 %, the HHI is 400 + 400 + 400 + 400 + 400 = 2,000. The higher the HHI for a specific market, the more output is concentrated within a small number of firms. In general terms, a market in large economy with an HHI below 1 000, can be characterised as having low concentration, a market with an HHI between 1,000 and 1,800 has moderate concentration and a market with an HHI above 1,800 is highly concentrated. Smaller economies are more likely to exhibit higher scores.

Horizontal agreement

Arrangement between actual or potential competitors operating at the same level of the production. Horizontal agreements may restrict competition in particular where they involve price fixing or market sharing, or where the market power resulting from the horizontal cooperation causes negative market effects with respect to prices, output, innovation or the variety and quality of products. On the other hand, horizontal cooperation can be a means to share risk, save costs, pool know-how and launch innovation faster. In particular for small and medium-sized enterprises,

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cooperation can be important means to adapt to the changing market place.

Hypothetical monopolist test (HMT)

A way of establishing how a market should be defined. Begin with a small candidate 'market,' and ask if a single seller of the goods in question would be able to make a profit by raising the price by 5 or 10% for a year or so. If many customers switch to an alternative, raising the price will not raise profits. This shows that the set of goods is not a market. Accordingly the investigator adds more goods to the market and repeats the question. When the smallest set of goods has been found for which a price rise is profitable, that set of goods is the market. It is difficult to administer the test in practice because the monopolist imagined in it is hypothetical, but the test suggests a useful way of thinking about the limits of markets.

Margin Squeeze

A margin squeeze occurs when the margin between an integrated provider's price for selling necessary inputs to a rival and its downstream or retail price to customers is so narrow that the rival cannot survive or effectively compete. A margin squeeze can arise only when (a) an upstream firm produces an input for which there are no good economic substitutes, (b) the upstream firm sells that input to one or more downstream firms and (c) the upstream firm also directly competes in that downstream market against those firms. The primary antitrust concern is that a firm engaging in a margin squeeze may limit, restrict or prevent the development of competition in the downstream market.

Market Definition

The starting point in any type of competition analysis is the definition of the "relevant" market. There are three fundamental dimensions of market definition: (i) the product market, that is, which products to group together; (ii) the geographic market, that is, which geographic areas to group together; and (iii) the temporal market, describing the time period in which the market exists. Market definition takes into account both the demand and supply considerations. On the demand side, products must be substitutable from the buyer's point of view. On the supply side, sellers must be included who produce or could easily switch production to the relevant product or close substitutes. Too broad or too narrow a market definition leads to understatement or overstatement of market share and concentration measures.

Market power

Strength of a firm in a particular market. In basic economic terms, market power is the ability of a

firm profitably to price above marginal cost. A firm with a high level of market power is said to be 'dominant'. In competition analysis, market power is determined with the help of a structural analysis of the market, notably the calculation of market shares, which necessitates an examination of the availability of other producers of the same or of substitutable products. An assessment of market power also needs to include an assessment of barriers to entry or growth and of the rate of innovation. It may involve qualitative criteria, such as the financial resources, the degree of vertical integration and the product range of the undertaking concerned.

Market share

Measure for the relative size of a firm in an industry or market, in terms of the proportion of total output, sales or capacity it accounts for. In addition to profits, one of the frequently cited business objectives of firms is to increase market share. This is because market share, economies of scale and profits are often positively correlated in market economies. In competition policy analysis, market shares are an indicator of market power. Attention should be paid not only to the firm's absolute market share level, but also to its market share relative to those of its competitors. However, even firms with large market shares do not necessarily possess market power, for example, in cases where barriers to enter the market concerned are very low and the threat of entry prevents the exercise of market power.

Monopoly

Market situation with a single supplier who - due to the absence of competition - holds an extreme form of market power. Under monopoly, output is normally lower and price higher than under competitive conditions. A monopolist may also be deemed to earn supra-normal profits (that is, profits that exceed the normal remuneration of the capital).

Oligopoly

A market structure with few sellers, who realise their interdependence in taking strategic decisions, for instance on price, output and quality. In an oligopoly, each firm is aware that its market behaviour will distinctly affect the other sellers and their market behaviour. As a result, each firm will take the possible reactions from the other players expressly into account. In competition cases, the term is often also used for situations where a few big sellers jointly dominate the market and a fringe of smaller sellers adapt to their behaviour. The big sellers are then referred to as the oligopolists. In certain circumstances this situation may be considered as one of tacit collusion.

Potential competition

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Pressure exercised upon incumbent firms by the possibility that new or existing firms will enter a specific market. New entrants may be attracted by above-normal profits being made by incumbent firms, possibly as a result of weak competition. Additional firms entering the market will increase the overall quantity supplied with the effect that prices fall and above-normal profits disappear. Thus, the possibility of market entry has a certain 'disciplinary effect' on the behaviour of incumbents. However, the threat of potential competition is relatively small when entry barriers are high.

Predatory pricing

A deliberate strategy of driving competitors out of the market by setting prices below production costs. If the predator succeeds in driving existing competitors out of the market and in deterring the future entry of new firms, it can subsequently raise prices and earn higher profits. Prices set below average variable costs are often presumed to be predatory, because they have no other economic rationale than to eliminate competitors, since it would otherwise be more rational not to produce and sell a product that cannot be priced above average variable cost. Where prices are set below average total (but above variable) costs, some additional elements proving the predator's intention may need to be established in order to qualify them as predatory.

Price Discrimination

Price discrimination occurs when customers in different market segments are charged different prices for the same good or service, for reasons unrelated to costs. Price discrimination can take many forms, including setting different prices for different age groups, different geographical locations, and different types of users (such as residential vs. commercial users). Where groups of customers can be identified and segmented then it can be shown that firms will find it profitable to set higher prices in markets where demand is less elastic. This can result in higher total output, a pro-competitive effect. Price discrimination can also have anti-competitive consequences. For example, dominant firms may lower prices in particular markets in order to eliminate competitors.

Substitutability

Measure of the extent to which products may be seen as interchangeable from the viewpoint of producers or consumers. A firm's pricing policy for a specific product is disciplined if consumers have

the possibility to buy another product, which they judge as being equivalent by its nature, use and/or price.

Vertical agreement

Agreement entered into between two or more firms each of which operates, for the purposes of the agreement, at a different level of the production or distribution chain, and relating to the conditions under which the parties may purchase, sell or resell certain goods or services.

CRC América Latina

ANNEX 2: TABLE OF CASES SUMMARISED

Case 4.1.1. –Albania -2007 - Mobile termination in Albania 43

Case 4.1.2. - Colombia – 2008 - Mobile telephony 44

Case 4.2.1. -Mexico- 2002 - Excessive charges and discrimination practice in the Mexican resale market 56

Case 4.2.2. - Mexico - 2011 -Telemex Refusal to Supply 57

Case 4.2.3. - Chile - 2007 - Request against incumbent mobile companies preventing the entrance of MVNO's 57

Case 4.2.4. - Chile -2005 - Telecommunications Company of Chile S.A. (CTC) restricting Broadband Access for IP telephony 58

Case 4.2.5. – Peru – 2003 – Complaint of Alfatel against Telefonica for refusal to deal 59

Case 4.3.1.- EU – 2011 -Commission Decision Case COMP / 39.525 - Telekomunikacja Polska 71

Case 4.3.2. – UK- 1996 - The Oftel caller display equipment case 73

Case 4.4.1. – EU – 2003 – France Telecom v European Commission - Wanadoo 79

Case 4.5.1. –EU – 2010 - Deutsche Telekom AG v European Commission 88

Case 4.5.2. – EU – 2012 - Wanadoo España vs. Telefónica 89

Case 4.5.3.- Mexico -2011 - Telcel Interconnection Margin Squeeze 90

Case 4.5.4. – Chile – 2010 On-net/off-net price discrimination – Margin Squeeze 90

Case 4.6.1. – France 2005 - Collusion among French mobile operators 100

Case 4.6.2. EU – 2005 - M.3916 - T-MOBILE AUSTRIA / TELE.RING 101

Case 4.6.3. – Ireland – 2004 - Investigation of the Irish mobile market 102

Case 4.7.1. – EU – 2020 - Germany T-Mobile and O2 & UK O2 and T-Mobile 111

Case 4.7.2 – Denmark - Radio Access Network sharing agreement between Telia Denmark A/S and Telenor A/S 113

Case 5.1. –EU – 2010 - Orange UK and T-Mobile UK COMP/M.5650 128

Case 5.2. –USA – 2011 - AT&T and T-Mobile 129

Case 5.3. – Chile -2005 - Acquisition of BellSouth Chile Inc. and BellSouth Chile Holdings Inc. (together BellSouth) by Telefonica Moviles S.A 131

Case 5.4. – Argentina -2005 -Telefónica Móviles S.A. Y Telefónica Comunicaciones Personales S.A 133

Case 5.5. – Chile -2004 - Liberty Comunicaciones De Chile Uno Ltda. Y Cristalchile Comunicaciones S.A 134

Case 5.6. - Honduras -2011- Millicom Cable of Honduras acquisition of Cable Television de Choluteca 135

ANNEX 3: SELECTED BIBLIOGRAPHY

Competition Law- Latin America

- I De Leon, An institutional Assessment of Antitrust Policy – The Latin American Experience. Wolters Kluwer, 2009.

- E Fox and D Sokol (eds), Competition law and Policy in Latin America, Hart Publishing, 2009.

Competition Law - General

- F Alese, Federal Antitrust and EC Competition Law Analysis, Ashgate Publishing, 2008.

- Bellamy & Child, European Community Law of Competition, 6th Edition & Supp, Oxford University Press, 2008/2012.

- M S Gal, Competition Policy for Small Market Economies, Harvard University Press, 2003.

- H Hovenkamp Federal Antitrust Policy, The Law of Competition and Its Practice, 4th edition, West Publishing, 2006.

- R Posner, Antitrust Law, 2nd edition, University of Chicago Press, 2001.

- R Whish and D Baily, Competition Law, 7th edition, Oxford University Press, 2012.

Competition law – Economics

- R Bishop and M Walker, The Economics of EC Competition Law: Concepts, applications and measurements, 3rd edition, Sweet & Maxwell, 2010.

- D Gerardin, A Layne-Farrer and N Petit, EU Competition Law and Economics, Oxford University Press, 2012.

CRC América Latina

- K N Hylton (ed), Antitrust Law and Economics, Encyclopedia of Law and Economics, volume 4, 2nd Edition, Edward Elgar Publishing, 2010.

- G Niels, H Jenkins and J Kavanagh, Economics for Competition Lawyers, Oxford University Press, 2011.

- Posner, Richard A., Economic Analysis of Law, 8th Edition, Wolters Kluwer, 2010.

Competition Law – Telecommunications

- S M Benjamin, D G Lichtman, H A Shelanski, P J Weiser, Telecommunications Law and Policy, 2nd edition, 2006.

- C Blackman and L Srivastava, Telecommunications Regulation Handbook, 10th edition, ITU, available at http://www.infodev.org/en/Publication.1057.html.

- K Coates, Competition Law and Regulation of Technology Markets, Oxford University Press, 2011.

- L. Garzaniti & M O'Regan (eds) Telecommunications, Broadcasting and the Internet. EU Competition Law and regulation. 3rd Edition, Sweet & Maxwell, 2010.

- Ian Walden, Telecommunications Law and Policy, 3rd edition, Oxford University Press, 2009.

Useful websites

ICT Regulatory Toolkit
http://www.ictregulationtoolkit.org/en/index.html

International Competition Network

http://www.internationalcompetitionnetwork.org/

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