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Competition Law in Regulated Industries: On the Case and Scope for Intervention

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Key Points

- In recent years, competition authorities have applied general competition rules in regulated industries, in addition to or instead of the regulation there in force.
- This raises issues as the two sets of rules are not necessarily identical and the authorities in charge of applying them do not always pursue the same objectives.
- This article proposes criteria helping to distinguish cases in which competition law is likely to be a more or less useful complement to regulation.
- As for cases in which competition law may, in principle, be useful, the authors argue for an intervention that accounts for the objectives set by regulation.

I. Introduction and key findings

Regulated industries continue to be subject to regular scrutiny by competition authorities, with a particular focus on potential exclusionary behaviour of the regulated firm(s).[1] One justification for *ex post* intervention in such industries is that the very fact that there is regulation indicates that the industry is vulnerable to abusive behaviour. However, *ex ante* regulation is introduced to address such concerns and one may argue that with good regulation there should be little need for *ex post* regulatory intervention. This raises the apparent (and well known) question of how *ex ante* and *ex post* intervention should work together.

This note does not, in principle, question *ex post* intervention into regulated industries.[2] However, we question whether there are certain criteria which may help to identify cases in which *ex post* control should intervene, and those in which intervention does not appear useful. Once a case classifies for *ex post* control, the second question is: to what extent should *ex post* control account for the regulatory objectives set by (*ex ante*) regulation?

In order to address the first question, we consider a regulated airport (i.e. *ex ante* control), whereby an entrant seeks access to airport land (e.g. via *ex post* intervention) in order to provide competing terminal services. Should *ex post* control[3] trigger an in-depth investigation so as to (potentially) oblige the airport to grant access to its land (whilst such an obligation was not foreseen by the regulatory approach)? Or could such a case be rejected by a short-cut? Against this background we derive the following criteria, which might help to distinguish cases which may qualify for *ex post* intervention from those which may not:

- Does the regulatory approach covering the goods or services related to the competition complaint appear effective? If the answer is affirmative, *ex post* intervention is *less likely to be helpful*.
- Does the complaint relate to goods or services which, if the competitive issue were resolved, enable effective competition on an end to end basis? If the answer is affirmative, *ex post* intervention is *more likely to be helpful*.
- Does the complaint relate to goods or services which are tightly intertwined with other regulated goods or services? If the answer is affirmative, *ex post* intervention is *less likely to be helpful*.

The first criterion is probably indisputable, necessary to consider, but not easy to answer without deeper investigation. The second and the third criteria may provide more useful guidance. By way of illustration, in the airport example, if *ex post* control were to enforce terminal competition, then competition on an end to end basis would still not be feasible. An independent terminal provider could still not offer all the other

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1 Prominent examples include Commission Decision 2003/707/EC, Deutsche Telekom, in OJ 2003 L 263; Commission Decision Case COMP/38.784—*Wonadoo Espana v Telefonica* of 4.7.2007.

2 Case T-271/03, *Deutsche Telekom v Commission*, Judgment of 10 April 2008; Case C-280/08 P, *Deutsche Telekom AG v Commission*, Judgment of 14 October 2010.

3 Of course, in a strict sense the obligation to deal could also be imposed by the regulator. To that end, the distinction between *ex ante* and *ex post* control would dilute. The substance of the question, however, remains in that it appears questionable whether the existing regulatory approach should be challenged due to non-foreseen access claims.

complementary airport services. In contrast, access to telecommunication services is generally designed such that access seekers may compete with an incumbent on an end to end basis. Next, in the airport example, terminal services are tightly intertwined with other airport services. This raises pricing and coordination issues. In telecommunications, once an entrant obtained access to an incumbent's network, it can serve end-users with little regard to complementary services of the incumbent.[4]

Now, the examples of access to airport land and access to a telecommunications network may illustrate instances in which *ex post* control is potentially less and more likely to be helpful, respectively. Once we consider cases in which *ex post* intervention does appear potentially helpful, the question is to what extent it should account for the broader regulatory objectives.

To illustrate the second question, consider a complaint about a margin squeeze. That is, a telecoms entrant may complain that, given wholesale access prices, an incumbent's retail prices would not allow for a sufficient margin in order to stay profitable. Should such a case be assessed purely by the standards of competition law? Or should *ex post* control account for the objectives set by the regulator?

We argue for the latter and highlight a particular concern. The concern is that *ex post* intervention might, first of all, presume that the incumbent's facility were essential, merely because it had been subject to regulation and would then move on, to assess the case purely from an *ex post* perspective. This could mean, for example, that to establish that access to the incumbent's network were essential because of regulation and that a margin squeeze were necessarily anticompetitive because the incumbent's network were essential. However, the regulator might have intentionally introduced light-handed regulation to encourage entrants to build their own facilities. Indeed, if facility-based competition were feasible, the incumbent's network would not even be essential—a test that *ex post* control might have skipped for the industry being subject to *ex ante* control. *Ex post* control might, hence, falsely presume dominance or essentiality and, based on a wrong presumption, derive incorrect conclusions about the effects of the margin squeeze. Therefore, in our view, if *ex post* intervention does intervene in regulated industries it should take due account of the broader regulatory objectives.

II. Access to airport land: A case for *ex post* intervention?

Consider a regulated operator of an airport which refuses to lease airport land to a potential rival that intends to offer independent competing terminal services at the airport.[5] This refusal to lease the 'essential facility' land might foreclose an effective competitor to the detriment of customers and ultimately consumers.[6]

Airports maintain a certain degree of market power because passengers prefer specific origin–destination pairs. The closest airport serving the preferred origination or destination, respectively, faces only limited competition from airports further away. For that reason, most airports are subject to sector-specific regulation. Regulators specify certain objectives such as sufficient infrastructure investments, strengthening the airport's position as a hub, service levels and competitive charges set in accordance with the airlines. The airport's total return on aviation-related facilities may be capped whereby non-aviation services cross-subsidise the former.

III. Regulatory effectiveness

If effectively enforced, the above sketched regulatory regime prevents the airport from increasing its charges in order to earn an above normal return on its assets. The airlines' involvement functions as further, even more immediate, oversight of the airport's charge system. Based on the competitive charge level, regulation obliges the airport to increase its capacity so as to satisfy increasing demand (gross of some spare capacity). This mechanism triggers capacity extensions whenever the incremental benefits exceed the incremental costs.[7] At the same time, the light-handed approach ensures flexibility such that market partici-

4 We acknowledge that this is a vast simplification. For example, collocation at main distribution frames involves that the entrant's network has to be connected to the incumbent's access network, to name only one issue. However, once a connection has been set up, the entrant can provide its services without interfering with the incumbent on a transaction by transaction basis.

5 This section draws on advice given to the Copenhagen Airport.

6 One case in point is the following: On 9 June 2010 the Danish Competition Authority, Konkurrencestyrelsen, issued a notification of concern against Copenhagen Airports A/S (CPH). The notification states that CPH might have engaged in a harmful refusal to lease, raising competitive concerns under Section 11 of the Danish Competition Act and Article 102 of the Treaty on the functioning of the European Union (TFEU).

7 In principle, efficient capacity extensions are triggered by two means. First, as described in the text, through the airport's obligation to satisfy demand at a given charge level. Second, if the airport is allowed a certain reasonable return on its facilities, then it has an incentive to extend such facilities once it can earn an additional return on the new facilities.

pants (the airport and the airlines) may utilise their superior knowledge (vis-à-vis the regulator) in order to generate further improvements.

The effectiveness of regulation can be checked by benchmarking charge, efficiency and quality levels and considering (the absence of) complaints by airlines. One may also check whether the airport tailors its services to the needs of market participants, which may include low cost terminals or services tailored to high quality airlines.

If the evidence available suggests that sector-specific regulation ensures desirable outcomes for consumers this would jar with a theory of consumer harm which is based on an assumption of regulatory failure. Thus we can draw one (rather obvious) conclusion for the value added of *ex post* competition control.

Criterion 1: *Ex post* competition intervention in regulated industries appears more useful if there is doubt about the regulatory performance (or evidence of regulatory failure).

However, regulation may not always perfectly replicate a competitive outcome.[8] Specifically, if the airport managed to earn a more than reasonable (or economic) profit under the sector-specific regulation, then one might consider terminal competition as a remedy.

IV. Potential effective competition on an end to end basis

Terminals are by no means the only essential facility of an airport.Airlines in fact require numerous complementary services such as a runway, taxiways, aircraft parking, airfield lights, airside roads and lighting, airside safety, nose-in guidance and visual navigation aids;[9] in summary the so-called aircraft movement facilities.

Aircraft movement facilities are certainly essential for an airport's overall service and, indeed, merely introducing competition at the terminal stage is unlikely to remove an airport's overall market power. This occurs because, generally, a single essential facility within a supply chain is sufficient for a firm to exploit market power and to capture the entire profit inherent in that supply chain. In other words, it does not matter whether a firm controls a single or various essential facilities within a supply chain.[10] This has two implications:

1. First, the other essential facilities, notably those regarding aircraft movement, still need to be regulated. To that end it seems quite likely that regulating just parts of the supply chain is more cumbersome than overseeing the entire supply chain. Moreover, one has to consider the additional regulation required for finding an access price for the airport land.
2. Second, even if terminal competition decreased terminal charges somehow, then the airport would have an incentive to re-capture these forgone profits through charges for its remaining essential facilities. This would in all likelihood work, as long as regulatory oversight was imperfect because terminal competition would (i) not decrease the overall regulatory burden and (ii) initiate a complete change of the current charge structure. Hence, nothing warrants the view that an apparent decrease of terminal charges would not trigger increases of charges somewhere else, e.g. for aircraft movement facilities. Ultimately, airlines would end up paying the same total charge for all airport services.

By way of contrast, consider access to telecommunications networks. Access regulation to monopolistic telecommunication networks aims at removing all competitive bottlenecks within the supply chain. For example, if entrants roll out their own networks they may rely on access to the last mile of the copper network. If entrants cannot roll out their own networks up to the last mile, they obtain access to larger parts of the telecommunication infrastructure. However, granting access to the last mile would make little sense, if the entrant had no chance to (i) either complement last mile access by means of own network investments or (ii) obtain access to other essential network parts as well (e.g. IP-Bitstream). In such a case access to the copper network would not remove a competitive bottleneck and would be largely ineffective.

Thus, we find:

Criterion 2: *Ex post* competition intervention in regulated industries appears more useful if it enforces competition on an end to end basis.

8 See Armstrong and Sappington (2006) and the literature reviewed therein; M Armstrong and DEM Sappington 'Regulation, Competition and Liberalization' (2006) 44 Journal of Economic Literature 325–66.

9 See Australian Productivity Commission 'Price Regulation of Airport Services' (2002) Inquiry Report, No 19, 23 January 2002.

10 According to the economics literature there is only one monopoly profit to earn within a given market (supply chain) and control over one essential input suffices for a firm to capture this monopoly profit. However, if there are other essential facilities being controlled by other firms, then all firms try to capture monopolistic profits, leading to an even worse outcome for consumers. See RA Posner, *Antitrust Law: An Economic Perspective* (University of Chicago Press, Chicago 1976); R Bork, *The Antitrust Paradox* (Basic Books, New York 1978).

V. Tightly intertwined goods and services

We refer back to the case of access to airport land for the purpose of terminal competition. As mentioned above, terminal services are closely linked to other airport services. Because these services are highly complementary, indeed, the airport provider can apply efficient incentive-based charge structures, rather than cost-based charge structures. An airport typically maintains a charge structure that is finely balanced so as to induce certain desirable incentives.

1. *Shifting the passenger risk from airlines to the airport*: An airport often lowers take-off charges and increases per passenger charges in an income neutral way. This reduces airlines' risks of using the airport and being fully charged with a low load-factor. Such a pricing structure is clearly efficient if the airport has idle capacity (under-utilised assets) because the airport still earns some returns on aircrafts that would otherwise not land (the principle is commonly referred to as Ramsey pricing). Moreover, with such a pricing structure the airport can finely rebalance the risk when (runway) capacity becomes scarcer (peak-load pricing). Then, a higher landing charge relative to the passenger charge would favour those aircrafts which are fully utilised.
2. *Exploiting economies of density by improving the airport's position as an international hub*: Airports often offer lower security charges for transfer passengers (both domestic–international and international–international) than for local departing passengers. This encourages airlines to include the airport as a transfer airport, creates economies of density[11] and attracts further airlines or routes in competition to other airports. Such a pricing scheme appears efficient because additional routes create more flexibility and choices not only for transfer passengers, but also for local departing passengers (i.e. transfer passengers exert a positive externality on local departing passengers).
3. *Cross-subsidisation from non-aeronautical services*: Airports regularly cross-subsidise aeronautical services through income from non-aeronautical services. Again, such a charge structure is efficient because aeronautical services create the business for non-aeronautical services—not the other way around (i.e. aeronautical services exert a positive externality on non-aeronautical services).

It is easy to see that an independent terminal inevitably precludes such an incentive-based pricing structure. The independent terminal operator would determine, among other things,[12] its own passenger charges so as to maximise its own profits. This distorts the incumbent's incentive to lower take-off charges (applicable to aircrafts using either terminal) because it cannot fully internalise the countervailing benefits.

Likewise, it would be hard for the airport to subsidise transfer passengers. Security charges apply to both terminals. Then, in the likely event that the independent terminal operator serves a relatively high share of local departing passengers, the current cross-subsidisation discriminates the independent terminal operator. Hence, competition rules hamper the scope for cross-subsidisation and the airport loses its appeal as an international hub to the detriment of consumers.

Finally, the incumbent would also lack incentives to lower its aeronautical charges because, as discussed, it could not fully internalise the countervailing benefits from higher non-aeronautical profits in its own terminals.

In addition, previous assessments[13] have identified a number of structural, operational and planning problems associated with terminal competition. According to these assessments, terminal competition creates inefficiencies because it leads to (i) lower utilisation of terminal facilities, (ii) creates frictions at the interface of the independent terminal provider and the airport provider and (iii) complicates long-term planning processes for complementary terminal and other capacities.

> Criterion 3: *Ex post* competition intervention in regulated industries appears more useful if it relates to goods or services that are not tightly intertwined with other regulated goods or services.

In our view, an intervention that imposes a duty to supply airport land would fail to satisfy important conditions for advisable *ex post* intervention into a regulated industry: (i) the service in question is not the only competitive bottleneck within the entire chain of airport services and (ii) terminal services are closely intertwined with other airport services.

At first glance, our conclusions seem to jar with the common (and shared) notion that competition yields desirable outcomes for consumers. So why should terminal competition not accomplish this? Many of our concerns relate to two specificities of the example.

11 See e.g. DW Caves, 'Economies of Density Versus Economies of Scale: Why Trunk and Local Service Airline Costs Differ' (1984) 15 Rand Journal of Economics 471–89 and many subsequent studies.

12 We understand that the independent terminal operator would determine its own passenger charges, handling charges and CUTE charges.

13 See Competition Commission, 'BAA airport market investigation' Report 19 March 2009, A10 (11)-7.

First, any airport will inevitably control other essential airport facilities that complement terminal services. But under terminal competition the airport loses the ability to optimally align these complementary tasks, most notably by means of an efficient pricing structure. At the same time, as the airport continues to control other essential facilities, terminal competition does not lower the regulatory burden. As a second specificity, a single terminal competitor will unlikely induce intense competition, not even in the terminal segment.[14]

These conclusions appear to be in line with the Commission's criteria for identifying relevant markets justifying *ex ante* regulation in the telecommunications sector. In particular, the Commission considers *ex ante* regulation appropriate if competition law by itself appears inefficient or insufficient:[15]

> Competition law interventions are unlikely to be sufficient where the compliance requirements of an intervention to redress a market failure are extensive or where frequent and/or timely intervention is indispensable.[16]

As argued above, competition in the terminal segment would not remove a competitive bottleneck on an end to end basis; the regulatory burden would remain high. At the same time, terminal services are tightly intertwined with other (regulated) airport services; hence frequent and/or timely intervention appears necessary. If such a background calls for *ex ante* regulation, in our view by the same token, it suggests little scope for intervention by competition policy.

VI. *Ex post* intervention: Accounting for the regulatory approach?

Above we presented an example in which *ex post* intervention did not appear well placed: access for airport land within a regulated airport. As a counter-example we referred to access to telecommunication networks. Indeed *ex post* intervention into regulated telecommunication industries is ubiquitous, in particular with respect to margin squeeze allegations.[17] The next question, therefore, is: if *ex post* intervention does, in principle, appear well placed, to what extent should it account for the regulatory objectives?

By way of illustration consider the broadband sector. One may argue that competition policy may complement regulation precisely because sectors like telecommunications and the Internet are, for historic reasons or by their very nature, prone to monopolisation and anticompetitive behaviour.[18] But this has been taken further by arguing that sector specific regulation already established a dominant position or the existence of an essential input. To that end, only the conduct itself, for example refusal to supply or margin squeeze, was at stake. But there was no requirement to show that the incumbent was obliged to supply or adhere to a certain pricing policy in the first place; that is, showing that (i) the (upstream) product was essential, (ii) there was a risk of elimination of effective competition in the downstream market and (iii) likely consumer harm due to a refusal to supply:

In certain very specific circumstances it is, however, clear that the Commission does not need to test the above three conditions, because the input owner's and/or other operators' incentives to invest and innovate upstream, whether *ex ante* or *ex post*, are manifestly not affected. The Commission considers that this is particularly likely to be the case where regulation compatible with Community law already imposes an obligation to supply on the dominant undertaking and it is clear, from the considerations underlying such regulation, that the necessary balancing of incentives has already been made by the public authority when imposing such an obligation to supply.[19]

Now, this already appears to be a stretch in that, on the one hand, intervention by competition policy means that a regulator's (implicit) assessment of appropriate remedies is faulty whilst, on the other hand, the regulator's decision to monitor a sector, probably weakly and probably so for good reasons, is taken as sufficient proof for the existence of input essentiality.

By construction, this must lead to undesirable outcomes when (i) light-handed (if any) regulation is well

14 Specifically, a duopoly might not make up for the loss of regulated price control (if only in the terminal segment and if only for the Terminal at stake). Further, the single additional operator provides only limited scope for efficiency gains (as a simple matter of probability) and even less scope for efficiency gains being passed on to many consumers (as a matter of focusing on the low cost segment). And even if, countervailing inefficiencies would yet have to be offset. Finally, a single additional operator exerts only minor pressure on firms to price according to their true marginal costs, typically one of the very advantages of competition.

15 The recommendation identifies, first of all, the two criteria (i) high entry barriers and (ii) persistence of entry barriers. See 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, Official Journal L 344/65, p. 66. This note has thus far presumed the existence of a competitive bottleneck within the relevant timeframe; i.e. high entry barriers and persistence thereof.

16 See Commission Recommendation of 17 December 2007 (n 15) 67.

17 That is an entrant may complain that the margin between the incumbent's access price and the incumbent's retail price is insufficient so as to accommodate entry.

18 See e.g. J Vickers, 'Competition Policy and Property Rights' (2010) 120 Economic Journal 375–92.

19 European Commission, in: OECD, Policy Roundtables Margin Squeeze 2009, DAF/COMP(2009)36, 256.

placed, (ii) the competition authority presumes dominance or essentiality for existing *ex ante* regulation, and then (iii) bluntly assesses the case and applies *ex post* measures such as if the market were shown to be subject to substantive distortions to effective competition.

As explained in the previous section, this paper does not, as such, question *ex post* intervention in light of *ex ante* control. However, from the above it should be clear that, if *ex post* control does intervene into a regulated industry it must account for the broader regulatory objectives. To that end, the competition authority may function as a complementary regulatory body and impose remedies consistent with both the (non-) functioning of the market and the regulatory objectives. It may not, however, translate the very existence of *ex ante* control into a proof of essentiality and then move on to assess the case from an *ex post* perspective as if dominance or essentiality had been shown.

By way of illustration, the European regulatory framework for the telecommunications industry aims at effective competition by means of facility-based competition.

The objective of the framework is to allow new market entrants to offer their services initially via the infrastructure of the existing operator. The revenue generated by new market entrants should allow them to 'climb the ladder of investment' and finally to invest in their own infrastructure. As soon as there are competing infrastructures, access regulation will be phased out, leaving the market subject only to competition law.[20]

The economics literature suggests that facility-based competition may rely on the ladder of investment, subject to two conditions.[21] First of all, the ladder of investment may only work if an initial phase of service-based competition facilitates facility-based competition at all. For instance, the incumbent may have inherited a superior network and have superior information. Relying on the incumbent's network may help to reduce uncertainty and to acquire customers without substantial upfront investment. However, if entrants could just as well build up their own infrastructure, there would be no need for the service-based detour.

Second, even if service-based competition were an important pre-condition for facility-based competition, it must not distort incentives. This means, most prominently, that once an entrant is ready for the next rung on the ladder, the previous one must be burned in order to encourage the next step. In addition, service-based competition must not distort investment incentives of existing facility-based competitors neither incumbents nor facility-based entrants.

What does the above mean for a potential *ex post* intervention? Access conditions and prices have a crucial impact on the industry's development towards facility-based competition. In particular, they affect both an incumbent's and entrants' incentives to invest in their own infrastructure. At the same time telecommunication markets differ in the extent to which they may support facility-based competition. In many Western European countries the copper (DSL) network was the superior technology for providing broadband services. In Eastern European countries, however, the quality of copper access networks has been of much poorer quality whilst, at the time of their liberalisation, alternative technologies such as WIFI, fibre, mobile and cable TV, were more advanced. In other words, the emergence and development of facility-based competition relied to a much lesser extent on the DSL network.

It follows that an alleged margin squeeze might have very different effects in Western and Eastern European countries. In Western European countries a margin squeeze on an incumbent's DSL network might be more likely to remove an essential stepping stone towards autonomous facility-based competition.[22] In Eastern European countries, however, entrants may well be better placed to compete with the incumbent, based on their own facilities. A margin squeeze or, more generally, too favourable access conditions may lead to exactly the opposite: facility-based competition emerges earlier and develops faster.

The example illustrates that the same conduct (e.g. margin squeeze) may have very different effects on competition and consumers. Then, an ex post intervention which, first of all, skips a test for essentiality for the mere existence of regulation, and continues to pursue the case purely based on the case law (e.g. margin squeeze as a quasi per se abuse) is prone to mistakes. Therefore, we consider that, if it does intervene, *ex post* control should take due account of the broader regulatory objectives.

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20 Article 7 of the Electronic Communications Framework Directive. Directive 2002/21/EC of 7 March 2002; <http://ec.europa.eu/competition/sectors/telecommunications/legislation.html> accessed 14 November 2011.

21 See M Boureau, P Dogan and M Manant 'A critical review of the "ladder of investment" approach' (2010) 34 Telecommunication Policy 683–96.

22 Prominent cases in which the Commission intervened into the regulated broadband sector involve Deutsche Telekom and Telefonica. See Commission Decision 2003/707/EC, Deutsche Telekom, in OJ 2003 L 263; Commission Decision Case COMP/38.784—*Wonadoo Espana v Telefonica* of 4.7.2007.